

Mexico

Hydroelectric Project

Scott Guggenheim was one of the social scientists working on the Mexico Hydroelectric Project.



Photo by John Cleave

I looked over the dark, smoky, adobe hall and wondered how I'd gotten into this situation in the first place. Our mission was supposed to complete the social and environmental appraisal of two large hydroelectric dams. Instead, we were cringing behind a large table, watching a raging argument develop between company officials and three or four hundred angry peasants. This was not the way to begin a participatory project.

Why Doesn't Resettlement Work?

Involuntary resettlement in Mexico differs little from large-scale resettlement elsewhere in the world. Large institutions, in this case, the national power company (CFE), acquire land through eminent domain so they can build hydroelectric dams, irrigation systems, highways, and so on. But people *live* on that land.

Four built-in characteristics of most resettlement situations make them inherently difficult. Perhaps the most significant factor is that it is *involuntary*. People do not have the option of *not* relinquishing their land. At the same time, although all legal systems require governments to pay compensation for expropriated property, in practice, most compensation systems are determined through administrative rather than market mechanisms. They usually fall short of providing enough money to replace what's been lost, and few opportunities exist to negotiate better rates. Resettlement situations typically pit large, powerful institutions against poor, weak, and often (though not always) isolated communities. Information, political and economic resources, and organization are not equally balanced.

Unlike most other examples described in the *Sourcebook*, the affected communities are not central to the achievement of project objectives. It doesn't

matter, for example, if local communities are committed to developing national energy sources or not. The people who build a hydroelectric dam normally don't want their involvement, only their departure. Managers of irrigation projects, who might organize the most participatory water user associations downstream, don't think of the displaced people as project participants. Construction companies that must work against tight budgets and strict deadlines rarely want to take extra time to plan and consult with people whose major contribution to a project will be to get out of its way.

Finally, an often underappreciated feature of the resettlement environment is that the people who will be displaced are frightened. Most have heard stories of displacement elsewhere and know that the rosy visions of new homes and farms often don't turn out to be true. For most, losing their land is tantamount to losing their source of livelihood in an environment in which there are few ways to replace it. For them, a failed resettlement program isn't a "lesson learned" or a lowered rate of return. It's a leap into poverty.

Because it lies on the extreme margin of the project landscape, resettlement provides a test case for development alternatives based on participation. With such unfavorable preconditions, examples of successful, participatory resettlement provide a special kind of evidence for claims about the scope and potential of participation to improve development.

Resettlement in Mexico

The Mexico Hydroelectric Project was going to be the first Bank investment project in Mexico's energy sector in seventeen years. The country was in dire need of electricity. Bank involvement was a new opportunity to support long overdue production, efficiency, and management reforms in the sector. The project, conceived to be the first of four large loans that would be made over the next two years, consisted of the Aguamilpa and Zimapan hydroelectric dam projects and a variety of policy and institutional reforms; hence, it provided an important opportunity to piggyback social and environmental reforms onto a major development program.

The resettlement plans developed for the 3,000 people who would be displaced by the Mexico Hydroelectric Project were neither better nor worse than the typical resettlement component. At the point when the Bank became involved, project technical planning (dams, powerhouses, roads, and so on) had advanced well beyond the resettlement plans, which were little more than skeletal copies of a standard (and unsuccessful) resettle-

ment package that had been tried elsewhere in the country. They included unrealistic proposals for long-distance relay irrigation to sites that subsequent research showed were unsuitable for agriculture or for breeding new, dwarf fruit tree varieties that could adapt to the harsh mountain environment where the people were expected to move. Heavily influenced by the engineering strengths of CFE, the resettlement plans showed few signs of having been developed or modified through discussions with those whose lives they would profoundly change.

But why should resettlement be treated like this? Wasn't there a better way? The Task Manager, project lawyer, and I thought there was. I'd already worked on enough projects to know that few technical agencies have as full control over resettlement situations as they think they do. Diversifying skills and increasing participation are not just philosophically good principles; they're necessities. In addition, Mexico has some of the finest social scientists, community development experts, and participation specialists in the developed or developing world; although CFE didn't know it, Mexican social scientists have generated one of the world's richest literatures on resettlement and its solutions. The skills and knowledge were there; now we, CFE, and the Bank had to learn how to work with them.

Although the project was already in negotiation, our team introduced tight conditions to require the company to develop an organizational structure and obtain professional skills that would be conducive to participatory planning.

The Mexican delegation balked, but the Bank held firm. The resolution of the situation was helped, I have to admit, by an equally intractable procurement problem. Negotiations broke down; for the next seven months the project sponsors tried to raise money privately.

Many things had changed when they returned to the Bank seven months later. A national election had triggered a national political crisis, followed by a nationwide campaign to improve local participation in development. Our in-country counterparts were now much more receptive to our ideas about what needed to be done. Helped by late night beers, we spent long hours in discussion about a new approach to resettlement—an approach based on creating an institutional capacity for consultation and participation.

Developing or Harnessing Capacity

We began by asking three basic questions that we thought lay at the root of the resettlement problem. The first was if the company knew enough about the people being dis-

placed and their needs to prepare a good resettlement plan. The second was if the company had the skills and experience to manage a participatory resettlement program. The third was what channels were available for the people being resettled to make sure that agreements were respected and information flowed to decisionmakers when construction schedules began tightening.

Field-level information was strikingly incomplete. But more important than the lack of good planning information was the conspicuous lack of contact with the villagers being resettled. The company's planning teams had been set up to *plan* the resettlement programs and *explain* them to the villagers. They weren't equipped to *learn* from them or to collaboratively decide how they might want resettlement to proceed.

New teams were recruited. This time they came with different skills and experiences. Mixed groups of young professionals—from university, NGOs, and social work and applied science backgrounds—were sent into remote villages with terms of reference that required them to stay there for three weeks out of every four. The problem changed from one of getting the staff to listen to the people, to one of getting them to stop listening long enough to write something down.

If giving villagers a “voice” proved surprisingly easy, developing an institutional framework to act on the information proved surprisingly difficult. Yet there would be little point in having highly participatory fieldwork if the information were lost in some office building. Virtually all of our involvement in the project was about revising the institutional design for participation, rather than “doing” participation ourselves. CFE's organizational shakeup created a new, high-level Social Development Office that reported directly to the company management. Similarly, each project had its own, on-site high-level office that reported to the engineer in charge of construction.

Why was the company receptive to these changes? Undoubtedly the size of the Bank loan helped. It was believed that this would be the first of four projected \$500 million lending operations to the Mexican energy sector in seventeen years. But other factors were equally important. The new company president came from a political background and had already introduced several organizational reforms. Other changes taking place in the country's own development dialogue were leading to more requirements for environmental and social impact analysis. Given the virtual nonexistence of such units within CFE, the plan we'd developed during negotiations was as good a start as any.

Filling in the organizational boxes with qualified staff was the next step. In my experience, companies that are

generally well run, such as utilities and parastatals, can attract and direct good staff once they understand what is required. After some discussion over which qualifications were relevant for the new position, CFE assembled a good group of experienced planners, economists, and social scientists to staff the new unit.

Making sure that the company included units with enough incentives and weight to do resettlement right was part of the solution to the problem of power imbalances. We wanted, however, to make sure that there were independent sources of information and appeal as well. Each state government formed a “comité de concertación” involving different line agencies and headed by the governor to review and assist with the resettlement plans. The National Indian Institute—a branch of the Education Ministry—provided field monitoring. The company also appointed a senior, independent resettlement adviser (an internationally famous Mexican social scientist) to the company president to conduct intermittent field reviews of the project.

Making the Strategy into a Program

The two projects took different approaches to turning the general resettlement strategy into on-the-ground programs. Most of the people affected by the Aguamilpa project were Huichol Indians, a group known for their wonderful artistry and symbolically rich rituals but also among the most desperately poor people in the country. Aguamilpa's first attempt to organize group meetings and discussions about resettlement among the Huichol met with nearly complete failure. Villagers had no tradition of group meetings with outsiders; virtually the only such experience they'd ever had was when they were summoned by local governments to learn that their houses would be sprayed for malaria and yellow fever.

The project's independent adviser quickly recognized that a more culturally appropriate approach was needed. The company increased the number of small field teams and began house-to-house visits to the remote settlements dispersed in the high Sierra Madre Occidental. Local community leaders were offering to help. The project gradually built a series of basic service programs such as health, cultural recreation, and basic needs that developed trust *before* they moved into the resettlement discussion. After years of “top-down” planning, the Huicholes for the first time began contributing their ideas about good locations, proper housing designs, and where to find the right priests (*mara'kames*) for a proper inauguration. The video we made of the project ends with a small group of beautifully costumed old men, some of

the Huicholes' most respected *marakames*, blessing the dam and new villages.

Zimapan was a different kettle of fish. Lying in Mexico's central plateau, these communities have marched across the pages of Mexican history for hundreds of years. The irrigated orchards that would soon be flooded, for example, were expropriated from large *haciendas* and given by a grateful government to its revolutionary supporters during Mexico's great agrarian reform of the 1930s. For centuries they'd lived in a hostile symbiosis with the outside world: they depended on employment in the large grain *haciendas* of the rich, yet internally they'd had to repress dissension to avoid losing their lands to hungry outsiders. Unlike the Huichol, they were used to collective action. The *ejido* assembly hall, where we had first met the villagers, was the forum for all secular decisionmaking.

More recent developments had led to some deep cracks in the social structure. Seasonal migration to Mexico City and the United States reduced many people's ties to the land. The poor harvests and shared poverty of former years was giving way to a new crop of parabolic antennas on adobe huts. Dissatisfaction with the religious hierarchy had plowed the way for extensive evangelization by Protestant missionaries, further dividing the communities.

The participation strategy in Zimapan was more sophisticated than in Aguamilpa because the strategy itself was negotiated locally. Community antagonism toward the first resettlement proposals had been so intense that people had repudiated their official leaders, who had acceded to the company's plan, and formed their own leadership. This evolved into a "negotiating committee" that developed a protocol for all resettlement discussions with CFE: full disclosure of information, joint financial audits, no individual deal making, and so on. Although the new resettlement unit was allowed to field social workers, the only binding arrangements were those signed jointly in the monthly meetings in the assembly halls. Saul Alinsky would have been proud.

The Resettlement Summit

The company as well as the villagers liked the new arrangements. Field tensions quickly diminished. Particularly in Aguamilpa, the farmers came to trust the new teams and even started coming to them for advice. As the new social development staff started to think about long-term social impacts caused by CFE's development program, the company decided to hold a national resettlement conference to discuss the approach being developed for Aguamilpa and Zimapan in light of resettlement

elsewhere. The conference brought together engineers, researchers, activist groups, and academics.

The more open, more participatory approach drew favorable reviews from unexpected quarters. Articles in national and international newspapers compared progress in Aguamilpa and Zimapan favorably with resettlement elsewhere. Visitors from as far away as the United States and South America were also struck by the high degree of local involvement in the initial program.

Institutional Resistance

The first sign that implementation would not be all milk and honey came when a new head of the social development unit was appointed. Concurrently serving as political adviser to the company president, he removed many of the most competent staff. Field morale plummeted. The company also decided that it did not like reporting to independent monitors, whose analyses couldn't easily be discarded when they reported bad performance. Antagonisms with Zimapan villagers flared up again when villagers were excluded from the company's replacement land selection committee. The company, unused to so much outside scrutiny, was reasserting itself.

Relations with the Bank also became more brittle. Reports by the independent monitors showed that several of the agreements reached with the communities (and us) were not being fully implemented. At times, Bank pressure seemed to be the only way to induce a response.

Problems with Participation

It wasn't just the power company's intransigence that made for difficulties. Village-level problems also made the participatory strategy hard to implement. Two problems stood out. First, despite their small size, the communities themselves were highly factionalized. Participation was defined as much by who didn't want to work together as by who wanted to make joint agreements. Second, the communities were highly stratified. One group of farmers was desperately dependent on land, particularly on the irrigated fruit orchards that would be destroyed by the reservoir. The second, more diverse group consisted largely of land-poor or even landless laborers who had left the communities to work as *braceros* in the United States. Although most of these people had started off poor, many had become relatively wealthy once they received green cards that gave them access to regular seasonal employment.

As long as the issues confronting the communities were general ones that applied to everybody, community

leadership could negotiate fair deals on behalf of everyone. But once the big issues were resolved, private deal making and special arrangements guided by the interests of the rich became an increasing problem. Poor people were increasingly excluded from resettlement decisionmaking, and over time a new, small elite developed within the community that jealously guarded its monopoly of power, sometimes through force.

Women's Voices

Rich and poor weren't the only fracture lines in Zimapan. When CFE began its first community consultations, many of the participants were women, because their husbands were off in the United States or other parts of Mexico for the agricultural harvest. Initially too shy to speak up in public meetings, they became more assertive over time. Even some of the resettlement demands changed. Once the women had a chance to say what they wanted, negotiations had to include not just requests for land but also some credit to open sewing shops or a small bakery.

This didn't last long, however. As the consultations began to produce tangible actions, the men attended meetings and women were increasingly scarce in the monthly meetings. The social workers, who were mostly young women, continued to visit their homes and transmit their requests for schooling, health, and other services that rarely occurred to the men who now dominated the meetings. Women never again had the same voice in the big negotiations with CFE.

So What Happened?

I left the project about two years after the first villages were moved to make way for the coffer dams, although I've tried to maintain some contact with the Bank staff and consultants who have taken over.

Aguamilpa supervision reports that resettlement is working well, a particularly encouraging outcome because the Huicholes were especially vulnerable to the debilitating effects of mishandled resettlement. During my last mission there, not only had all of the resettled families remained in their new sites, but relatives had started to move into the area.

Resettlement in Zimapan's main villages got off to a bad start when people from the largest town discovered that one of the ranches bought by the project's land selection team lacked the promised irrigation water. Furthermore, as the villagers studied their new, irrigated, highly capitalized ranches, on which they'd formerly been low-paid workers, they realized that they didn't have the

skills or experience to run them. Coming at the same time as Mexico's dissolution of common property *ejido*, the villagers opted to sell the replacement farms negotiated with the company rather than move there, despite their original agreements. It seemed less risky to combine rainfed farming back in their home villages with seasonal emigration. In other villages, in which the approach evolved to the point that farmers could select their own land, it appears that resettlement went smoothly.

Compensation payments provided another flash point. Initial underassessments by the company were suddenly matched by an equally absurd overassessment by the community's negotiating committee. Company threats were matched by community visits to legislators and on-site work stoppages. For the first time, compensation rates were renegotiated and assessments raised to reflect the real costs of replacing them.

Dollars and Sense

No easy way exists to measure accurately the costs of our more participatory approach to resettlement. On the Bank's side, the costs consisted of little more than taking me along on regular missions. Our role wasn't to *do* the participation, only to help the company form and implement a more participatory program. Incremental costs for the Bank, therefore, came to about twelve weeks of staff time over the two years that I was with the project.

The cost issue is less clear when it comes to the borrower. The two projects have been the most expensive resettlement operations they've ever financed, costing at least double the most expensive previous program. There's no question that the higher resettlement costs are caused by greater participation; negotiation forced compensation rates up considerably—at least to market rates and probably somewhat beyond them. The company also had to form social and environmental impact units at a time when the Bank was otherwise recommending substantial staff slimming.

Project costs must be weighed against the benefits gained from the new approach. Aguamilpa and Zimapan are among the few large dams ever completed on time in Mexico. Although not every delay in the other projects can be attributed to fractious resettlement, many can be. During roughly the same period that Aguamilpa and Zimapan were being built, two other large dams—not financed by the Bank—were canceled entirely because of resettlement protests that blossomed into armed confrontations and marches into Mexico City. Because of the enormous costs of dam construction—nearly a billion dollars for the two projects—each year's delay in

project commissioning would have implied foregone benefits that exceeded the total cost of our entire participatory resettlement package by orders of magnitude.

I think that the program's social benefits exceeded the economic savings. The project's "participatory stance" led to happier people, not just among the resettlers but among the technical staff as well. During supervision we repeatedly met field engineers and supervisors who commented how relieved they were to be working on a project in which they didn't feel surrounded by hostile, bitter people.

Finally, I think that the nation as a whole benefited. There isn't any real way to capture the true costs of using state power to force resettlement, but they're high. Resettlement colonies in other projects we visited were often squalid places, mired in poverty and unhappiness. The children of Aguamilpa and Zimapan are already back in newly built schools, on their way to becoming the country's next generation of engineers, economists, and perhaps even anthropologists.

On Reflection

This is not a case in which hindsight produces a much clearer vision of what could have been done differently. Certainly it would have been better to begin the participatory approach earlier instead of having to rebuild from a fragile and already confrontational base. Yet many of the project's problems were not really related to planning.

My experiences in Aguamilpa and Zimapan taught me a lot about participation and development. More than ever before, I'm convinced that people make the projects. Yet, good people trapped in powerless positions can achieve little. Resettlement in Aguamilpa and Zimapan worked because the power company hired good people and gave them a mandate and sufficient resources to do what they already knew how to do. Once the field teams were in place, many of the ideas they came up with were much different from what I would have suggested, but usually they were better.

Resettlement also worked because community consultation and dissemination of information was so much better than in any previous resettlement program. People may not always have agreed with what happened, but they were rarely surprised by it. Furthermore, because there was so much more openness about what was supposed to happen, NGOs and other state and national agencies were able to pressure Mexico's civil institutions. Peasant resistance committees visiting state capitals may have been troublesome to project managers, but they returned resettlement to the national political system in which it belongs.

Not all the lessons are positive ones. Pressed by time and swept up in the enthusiasm and camaraderie of a new idea, we didn't operate with a clear understanding of the limits of our participatory approach, nor with an objective assessment of our role in making it happen. Field visits by Bank staff led to local beliefs that the Bank was on "their side." Such sentiments led to strong resentments in government agencies and raised legitimate questions about the Bank's proper role.

How important to the overall outcome was, in fact, the Bank's work in introducing a more participatory approach to the project? It's difficult to step back enough to provide a fully objective evaluation, but I think the Bank made a limited number of critical interventions that paved the way for new ideas. The Bank's big comparative advantage comes from its focus on policies and institutions, not in "doing" participation per se. We helped create the enabling environment that provided incentives and opportunities for CFE staff to work with the communities, insisted that the company assign qualified staff, and introduced cleaner lines for decisionmaking. We played almost no role in developing the specific participatory methodologies and activities.

That said, there's no question that the Bank's signals were heard throughout the power company. Details of the long discussion of resettlement at the Bank's Board were known by every engineer we met. As the project advanced, the Bank's Mexico Department director and the energy division chief gave the project a big boost by visiting the communities and meeting spontaneously with some surprised resettlers. These visits were as important for the impression they made on CFE management as for any facts they found in the field. Perhaps most important of all was that the Task Manager made a strong point of visiting the field sites on virtually every supervision mission, no matter how brief it was. Knowing that the Bank would come led to flurries of activity before and after our missions, during which some of the annoying problems that had been lingering on through bureaucratic inertia were magically solved on the spot.

The other big mistake we and CFE made in the project was in not thinking carefully enough about the implications of community stratification. Particularly in Zimapan, most of our assumptions about communities' abilities to make satisfactory collective choices turned out to be wrong. "Letting them decide" often turned into a way for unequal village social systems to become even more unequal.

Could we or CFE have done much more about it than we did? I'm not sure. In their few, short years of life, development projects cannot undo social systems that

have developed over centuries; this applies as much to the big bureaucracies with which we work as it does to the small communities affected by projects such as this one. I'm not convinced that we have the analytical and operational tools we need to deal with the local-level problems of conflict and inequality that we face once we get through the higher-level problems.

Several years after I left the project, I asked my in-country counterparts in the different Mexican agencies what they thought we'd done well and where they felt we made big mistakes. Somewhat to my chagrin, nobody singled out the Bank's use of a field anthropologist with years of experience working in central Mexico as being especially important. Instead, they focused on the Bank's "weight," the fact that such clear signals about participation came down to their own management. More than anything else, they said, the consistency of our overall message opened up space for them to try new ideas, often despite strong internal opposition to changing the status quo. One senior engineer, who strongly supported the changes, told me that he believed that the Bank has a lot more power to introduce changes than it thinks it does and a lot less than the government thinks the Bank does. The question was if the Bank had a clear enough strategy and resolve to make institutions like his more open to a participatory approach.

They also liked some of our technical exchanges. Early into the project, I helped organize a visit to the Hopi-Navajo relocation program in the United States so our Mexican team could see how industrial countries also

mess up resettlement. They used that trip well, commenting self-consciously about the differences among the levels of community participation in the program and adapting that program's creative approach to participatory monitoring of housing construction. We also mailed down a huge amount of literature on participation and resettlement that was copied and circulated.

What they liked least was the Bank's lack of self-awareness during field visits. They thought we were fair game for anybody who wanted to manipulate the missions—from project heads who warned staff not to relay bad news, to wily farmers who saw a chance to get a new round of concessions. Some of the more thoughtful people noted that because of the project's size, CFE and, by extension, the Bank, transformed and often in effect replaced traditional conduits and mechanisms for local decisionmaking. Neither the Bank nor the company, they said, had ever understood the ramifications of these changes on a regional environment. These are good points that I return to often.

Finally, I have to say that introducing a participatory approach was not all fun and games. Old ways fight back. We had our share of good times, and many of my in-country counterparts who developed the project remain not only close friends but also people who have gone on to reform projects elsewhere in Mexico. Still, it would be naive in the extreme to claim that all it took was a launch workshop and participatory training to get the new approach adopted. "Buy-in" and "ownership" are part of the story, but so are Bank pressure and willingness to stand firm on agreements.