Research Influence on Public Policy: A Case Study

# Changing the Face of Mining in Peru

The news is both good and bad for miners and mining communities

Mining is a dirty, dangerous occupation, but never more so than when multinational mining companies set up shop in developing countries. Because these countries desperately need the foreign currency that the mining industry brings, they do not always enforce environmental and health regulations. Two projects in Peru, where mining is a major industry, illustrate the difficulties – and in one case show how the effective use of research can influence the policies of both business and government.

The Pacific coast town of Ilo in southern Peru has for neighbours two of the largest mines in South America – Cuajone and Toquepala, operated by the American-controlled Southern Peru Copper Corporation (SCPP). For most of the past 50 years the mines have been very bad neighbours.

Ignoring the protests of municipal officials and the farmers in the nearby valleys, the mining company polluted the region's air, fresh water, and coastal zones with impunity. Untreated mine tailings were discharged into the ocean, destroying marine life in the nearby Bay of Ite and polluting the ocean as far as 11 kilometres offshore and at depths up to 60 metres.

Tens of thousands of tonnes of slag were dumped on beaches, extending into the sea at a rate of 40 to 60 metres every year. Sulphur dioxide gases from the smelter caused health problems for the local people, destroyed more than 20 square kilometres of the surrounding natural coastal pastures, turned the area into a desert, and damaged farmers' crops inland.

Worse, the mines extracted high-quality water in the high Andes, reducing the quantity and quality of water available downstream for domestic and agricultural purposes. Geological studies showed that the company's extraction of water was responsible for a decrease in the flow of local rivers as well as an increase in salts in the river basins.

## Mobilizing for change

Things began to change in the 1980s when a local NGO called LABOR decided that international pressure was needed to redress the balance of power between the community and the company. In the words of Doris Balvín Díaz, a lawyer and a LABOR organizer: "Social and environmental conflicts in developing countries such as Peru do not take place under equitable conditions. Investors have more power than local communities and are supported by the state because they bring resources to the economy."

LABOR looked for an opportunity to level the playing field. They found it in the form of the second International Water Tribunal (IWT II). The IWT II, supported by more than 100 European environmental organizations, has no legal authority, but has successfully relied on international publicity to get results. Supported by the local authorities, LABOR's case was accepted by the Tribunal, which then asked IDRC to support the detailed research LABOR would need to present its case.

The Centre's expectations of the project's policy impact were fairly low, says Fernando Loayza Careaga, who evaluated the project for IDRC. "The feeling was that if they could assist LABOR in making a well-researched presentation to the IWT II, then the ensuing publicity might convince SPCC to improve their environmental behaviour." LABOR and its supporters, however, were much more ambitious. Balvín Diaz believed that a favourable finding would make the national government pay attention to the complaints of the local people, and change its lenient attitude toward SPCC.











LABOR had worked closely with the municipality of Ilo since the mid-1980s, and by the start of the 1990s had become the local government's main environmental advisor. Two successive mayors supported LABOR's cause. LABOR's case was also supported by the Multi-sector Permanent Commission on Environment (MPCE), made up of representatives of local municipalities and state government departments, as well as unions and civil society groups. And it just happened to be chaired by the mayor of Ilo, Ernesto Herrera Becerra. It was MPCE's role to oversee SPCC's compliance with environmental recommendations. The Commission members wanted to see concrete action from the mining company, and they weren't getting it.

### A victory

Edmundo Torrelio, of the Ilo Valley Commission of Irrigators, pointed out that the valley farmers also had a stake in the management of the scarce water resource. The farmers' persistent complaints eventually got the attention of the General Inspection Office of the Republic, and resulted in a major coup – the General Inspector agreed to testify before the Tribunal.

This brought the project national media attention. Three days before the IWT II hearing the newspaper, *Onda*, reported "The General Inspector of the Republic, Dr Luz Aurea Sáenz, said yesterday that during the last three decades some factors, such as lenient legislation and bad public servants, have allowed SPCC to impose its terms, to do nothing to solve problems, and to misuse water resources." Another newspaper, *La Republica*, quoted Dr Sáenz as saying that, while a favourable ruling from the IWT II would be only a moral victory, it would be acknowledged at the United Nations Conference on Development and Environment, held later that year in Brazil.

LABOR was able to put together a strong coalition of local and regional forces to support its case against SPCC before the IWT II. That case included the IDRC-funded study. Additional evidence was presented at the hearing in February 1992, including a video and live testimony from Dr Sáenz and mayor Becerra.

But Balvín Díaz and her colleagues realized that local support and a victory at the IWT II might not be enough. They would need political support at the national level to guarantee action. And they got it. Immediately after the Tribunal's decision was announced, 50 members of congress came out in support of its findings. This was the result of intense lobbying in the preceding months by two

local members of congress – Cristala Constantiñidez and Julio Díaz Palacios, who was mayor of Ilo during the 1980s.

In its findings the IWT II Jury condemned SPCC for its abuse of freshwater resources, its negligence in disposing of toxic slag, and for emitting enormous quantities of sulphur dioxide gases. It accused the company of taking advantage of lax enforcement of environmental laws and regulations, and of increasing its profits at the expense of the local community.

#### Concrete results

While the jury's findings were everything that LABOR and its coalition had hoped for, it was in one sense anti-climactic. Just two months before the IWT II hearing, anticipating a negative outcome from the Tribunal, SPCC signed an accord with the national government committing an investment of us\$200 million for environmental projects and a further us\$100 million for new technologies and equipment.

Since that time the company has built an earthquake-proof tailings dam so that tailings are no longer discharged into Ite Bay. The bay itself has been reclaimed, and the flamingos, fish, and shrimp have returned. Slag dumps on the shore near Ilo have been removed.

The company compensates farmers for damage to crops, and has established a fund for agricultural loans and technical assistance. Water recycling has been increased and SPCC no longer exploits water wells in the Ilo valley. A three-stage project to reduce sulphur dioxide emissions by 92% was scheduled for completion at the end of 2004, but the government recently approved a two-year extension.

There have also been changes in public policy. Most significantly, the government of Peru adopted a new environmental regulatory framework for mining activities. How much this was influenced by LABOR's campaign depends on whom you talk to. LABOR staff and both the current and former mayors of Ilo believe that the Ilo case was critical in determining the new framework.

On the other hand, officials such as Luis Alberto Sanchez at the Ministry of Energy and Mines attribute the reforms more to the privatization process and pressures from multilateral financing institutions. He concedes, however, that the mining industry's legacy of pollution and environmental degradation played a role.

#### High altitude mining: an occupational hazard?

In 1990 Cerro de Pasco, 4,300 metres above sea level, was the largest and highest mining town in the world. About one-third of its population of 71,000 are miners and their families — and according the Dr Alberto Arregui, of the Centro Medico San Felipe, they were dying too young, much younger than people who lived at sea level.

The main cause of death was chronic mountain sickness (CMS), which is essentially a process of loss of adaptation to high altitudes. Preliminary research carried out by the Universidad Peruana Cayetano Heredia, at the request of the miners' trade union, had suggested that a combination of factors led to the high incidence of CMS among the miners of Cerro de Pasco. Many smoked tobacco, drank alcohol, and chewed coca leaf. But more than bad habits, the research suggested that shift work and the severe working conditions in highaltitude mines increased the incidence of CMS.

In 1989 IDRC funded a study to explore these results with a view to gaining recognition of CMS as an occupational illness by the government and the International Labour Organization. However, the project included no formal strategy to lobby policymakers or other social agents.

The 18-month study did find a higher incidence of CMS among the miners than among the general population, and concluded that "the highly exhausting physical activity of miners in general, and mining drillers in particular" accelerated the symptoms of CMS.

The results of the study were outlined in a presentation to the miners' trade union. Leaflets were published and distributed in other high-altitude mining centres in Peru. The results were also published in an award-winning book, Desadaptación a la Vida en las Grandes Alturas (loss of adaptation to life at high altitudes). However

there was no concerted effort to meet with the government, the mining industry, or community-based organizations. The effort to gain recognition for CMS fell far below what was expected, according to Dr Arregui and researcher Marcel Valcarcel.

This was in part because of the threatening presence of Shining Path guerillas in Cerro de Pasco, which forced the research team to keep a low profile. Then both the Ministry of Health and the mining industry representatives challenged the project's findings because they contradicted the "traditional assumption" that people born at high altitudes are "well adapted" to these conditions. In addition, it was suggested that the findings of the initial study were biased, that the miners had been "induced to express perceptions of health discomfort."

Thus, despite some positive findings, the study has had a negligible impact on occupational health and safety or mining policies in Peru, says Fernando Loayza Careaga, who evaluated the project's policy impact. Among officials at both the National Institute of Occupational Health and the Ministry of Energy and Mines, as well as among representatives of industry associations, he could find no one in 2002 who was aware of the study. Union officials, however, were aware of the study, but they now had other priorities.

Since the study was conducted, Peru, like many other Latin American countries, has undergone major economic reforms, including labour market reform and the privatization of state companies. This has resulted in a rapid increase in the number of miners working on contract, and a subsequent weakening of the miners' union. The weakened unions have largely lost their ability to influence policy, says researcher Marcel Valcarcel.



Concluding his evaluation of the two projects, Fernando Loayza Careaga assessed the type of policy influence each project had, the factors that affected policy influence, and IDRC's role in the project's ability or inability to influence policy. Some of his conclusions:

☐ The overriding purpose of the LABOR case against SPCC before the IWT II was to influence corporate policies toward the environment and to change the Peruvian government's lenient

attitude. LABOR correctly saw the IWT II hearing, and the attendant national and international media coverage, as an instrument to bring about change. In the case of the high altitude mining study, however, government officials remain convinced that CMS is not an occupational disease, and there has been no organized attempt to use the evidence provided by the researchers to confront this perception and identify the need for further action.



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- ☐ Two main factors account for the LABOR project's success at influencing policy: the development from the outset of a strategy to disseminate the research results among key national and international stakeholders, and the ability to build community support around the issue. While the high altitude study did publish its results, there was insufficient follow-up, and neither the mining community nor the unions was actively involved in promoting a dialogue on the causes of CMS.
- ☐ In both cases, the projects might have had a greater policy influence if IDRC had had a framework in place to assess a project's impact after its completion. For example, disseminating LABOR's study to a broader group of research institutions supported by IDRC could have had a great influence on the environmental regulatory framework in Peru, and possibly in other mining countries in the region.



#### Some lessons

- ☐ Influencing policy is not a spontaneous by-product of good quality research; when a project is part of a broader strategy to influence policy, its effectiveness improves significantly.
- ☐ Empowering local communities by providing technical and specialized information breaks through their isolation and enables them to influence policy.
- ☐ Careful planning and analysis from project design to project implementation and dissemination of results are needed to close the gap between research and policy.
- ☐ Small things can make a big difference: providing LABOR with a fax machine enabled them to be in touch with activist groups nationally and internationally.

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The International Development Research Centre (IDRC) is a Canadian public corporation, created to help developing countries find solutions to the social, economic, and natural resource problems they face. Support is directed to building an indigenous research capacity. Because influencing the policy process is an important aspect of IDRC's work, in 2001 the Evaluation Unit launched a strategic evaluation of more than 60 projects in some 20 countries to examine whether and how the research it supports influences public policy and decision-making. The evaluation design and studies can be found at: www.idrc.ca/evaluation/policy