

lessons learned: pangue hydroelectric



Summary



Environment & Social Development Department

Preface

In the early 1990s, IFC commenced a decade-long involvement in the Pangué Hydroelectric project in Chile. The project sparked a multitude of controversies that have greatly influenced the Corporation's approach to addressing environmental and social issues. By IFC standards at the time, the Pangué project reflected precedent-setting efforts to promote environmental and social stewardship. Yet, no other project in the history of IFC has led to such ongoing controversy, and far-reaching institutional change.

The fallout from Pangué was a difficult but valuable learning experience for IFC management and staff. Two formal complaints were lodged with IFC's Compliance Advisor Ombudsman (CAO), an independent review was ordered by World Bank Group President, James Wolfensohn, and the project was subject to intense NGO scrutiny for over a decade. The resultant cost to IFC has been significant in terms of millions of dollars spent in staff time and public relations, legal and consultant fees.

Unknown to many, it was the Pangué project that catalyzed the strengthening of IFC's institutional capacity to address environmental and social issues, most notably the emergence of IFC's Environment and Social Development Department; the adoption of the Safeguard Policies; the formulation of robust environmental and social project review procedures; and the establishment of the CAO's Office. All these aspects have become a mainstay of IFC business. This case study has been written for an internal audience to relate key aspects of the Pangué story from the perspective of IFC. Its purpose is to ensure that 'lessons learned' by staff who worked on the project can benefit the wider institution as IFC moves forward with its focus on sustainability.

Project Implementation

IFC agreed to finance Pangué as a stand-alone project, and the project was constructed between 1993 and 1996. While Pangué was the first, major hydroelectric dam built on the Bío-Bío River, ENDESA had disclosed a conceptual plan in the late 1980s to construct as many as five additional dams, one of which was the 570 MW Ralco hydroelectric storage facility. Located around 13 miles upstream of Pangué, ENDESA started construction on Ralco in 1998 amid much controversy. Wholly owned by ENDESA, Ralco did not receive funding from IFC.

The Bío-Bío watershed is home to Indigenous Pehuenche communities, and the Pangué dam flooded 450 hectares of land, displacing 53 people. Set in the context of direct impacts of fifty hydroelectric projects worldwide (hectare inundated and persons displaced per MW), Pangué is among the lowest impact hydro developments in the world. However, as IFC's experience in this project revealed, minimal direct impacts are not a measure of a project's simplicity. Most of the controversy surrounding Pangué would result from indirect impacts arising from the project's construction, and from concerns relating to the cumulative effects of ENDESA's future hydro projects namely Ralco.

Regardless of the quality of the project, hydroelectric developments are unpopular and NGOs had been engaged for many years in opposing large dams. Projects such as the Three Gorges dam on the Yangtze River in China, and the Narmada dam in India had brought these concerns home to World Bank staff. In the lead-up to Board approval of Pangué in 1992, IFC received a record number of petitions from concerned Chilean and international NGOs demanding that the Corporation not finance the project on environmental and social grounds.

The Four Major Dilemmas and Lessons Learned

While there were scores of individual challenges associated with the Pangué project, many of the clustered around four broad dilemmas. Each illustrates the breadth and complexity of the issues that challenged IFC, the Sponsor, and stakeholders during the course of the project. Each dilemma has generated a number of lessons learned.

Dilemma 1— Indirect Impacts

Problems arose relating to the land tenure of fourteen indigenous families residing at El Avellano, on the shore of the Pangué Reservoir. In mitigating the project's 'direct impacts', 8 families (53 people) were resettled due to reservoir inundation. However, the El Avellano families suffered an 'indirect' consequence of dam construction, namely a rise in land prices that threatened them with eviction. These issues did not fall neatly within IFC's appraisal and supervision procedures at the time and posed significant procedural challenges to IFC and the Sponsor. Evolving practice has demonstrated how essential it is to identify and manage indirect impacts to avoid the type of risks and reputational damage that was experienced with the Pangué project.

Lessons Learned

- **Large development projects affect land values.** This issue should be systematically addressed at appraisal. This is particularly important in situations where weak land registration systems exist and/or indigenous or other vulnerable groups live in the project area.
- **Indirect impacts can pose equal, if not greater, reputational risk to IFC and the sponsor than direct project impacts.** It is in the interests of both parties to anticipate all risks that may arise from a project, and manage them proactively.
- **New and unanticipated risks will inevitably arise in a project— resolution procedures should be agreed in advance between IFC and the sponsor.** It is critical that IFC and its clients have an understanding, from the outset, as to how environmental and social issues not covered in the Investment Agreement will be handled.
- **Engage with affected communities when unforeseen circumstances arise.** Direct consultation with affected communities is crucial in order to find effective solutions that are acceptable to all parties.
- **Select a sponsor that demonstrates a commitment to environment and social responsibility.** The handling of environmental and social issues can be particularly complex in situations where IFC and the sponsor have divergent views, interests and approaches. It is critical to choose a sponsor who shares common values and demonstrates a commitment to environmental and social responsibility. The client must be aware that they may be required to find alternative solutions to resolve issues as they arise.

Dilemma 2— Cumulative Effects

A Cumulative Effects Assessment (CEA) was undertaken to address the potential impact of future hydroelectric dams planned by ENDESA on the Bío-Bío river system. While IFC did not fund ENDESA's Ralco project, it became embroiled in this controversial issue through its involvement in Pangué.

Lessons Learned

- **At project appraisal, IFC must be cognizant of the potential impacts of other projects and activities in the area-of influence of its investment:** Sponsors' long-term plans must be clearly understood and considered strategically at appraisal.
- **CEA should be dealt with at appraisal when IFC's leverage is highest.** CEA should be used as a tool for decision-making, as part of the environmental and social assessment process at project appraisal. The process for undertaking CEAs should involve proper consultation in order to set the scope of the boundaries (time and space), to agree on projects to be included in the CEA, to agree on methods for collecting data, and to select analytical techniques.

- **CEA requirements can insert IFC into the host country's decision-making process on sector development scenarios.** The purpose of a CEA is to evaluate environmental and social impacts of an investment together with reasonably future projects, not to bring into question the decisions of national authorities on future sector investments. IFC's involvement in a project may cause it to become sandwiched between the two. In light of this, IFC guidance on CEA should proceed with considerable caution and in an incremental manner. Specific project experiences should be collected, analyzed and synthesized into IFC guidance on the CEA process.

Dilemma 3— Added Value

The ambitious community developmental goals for the Pehuen Foundation were backed by unique design features, including representative governance; funding directly linked to project profitability; participatory design; and independent evaluation. It was a cutting-edge program that went well beyond the standards and guidelines prevailing at that time.

Despite these innovative features and the good intentions of both IFC and the Sponsor, the Pehuen Foundation became a target for criticism. Problems arose during the implementation of the Pehuen Foundation's programs. This dilemma illustrates the challenges on the ground of undertaking community development with vulnerable social groups. While IFC tried to push beyond minimum requirements to 'add value' to a project, this resulted in unanticipated outcomes.

Lessons Learned

- **Social initiatives require sustained commitment, supervision, and monitoring from all parties to guarantee successful outcomes:** The potential rewards of sustainability initiatives are evident, but IFC and project sponsors must be aware of the sustained effort and commitment required to achieve success. Value-added initiatives require regular and careful supervision and monitoring and require IFC to locate specific expertise.
- **Interim evaluations of community development programs are a valuable tool for assessing effectiveness:** Community development programs involve trial and error, and setbacks and learning are part of the process. Interim evaluations are a valuable tool for assessing progress and making midstream adjustments. Evaluations should be built into the design of such programs and program beneficiaries should be involved in the evaluation process.
- **Local values and needs may diverge from a program's best intentions:** It should not be assumed that external values such as 'sustainability' and 'capacity building' are priorities for poor communities. Participatory processes can result in surprising outcomes that are different from, and even contrary to, anticipated development objectives and local expectations. Specific issues of leadership within indigenous communities have to be understood and mechanisms put in place to ensure that expressed needs are clear.
- **Target most vulnerable groups to ensure they benefit from implemented programs:** Requiring “co-payments” or other contributions from program beneficiaries to promote ownership and accountability can, in some cases, result in exclusion of the poorest from participation in the program. Careful targeting is needed to ensure that vulnerable groups benefit.
- **Meaningful community participation is easier in theory than practice:** Consultative processes can be a challenge on the ground due to large distances, lack of transport and communication systems, and low literacy rates amongst affected communities. These barriers must be considered from initial planning stages to ensure a minimal burden is imposed on participating households while effectively garnering community inputs in the development program.

- **Strong commitment to capacity building is critical for success:** If local communities and vulnerable groups are to participate effectively in development programs, time and commitment is required from both IFC and the project sponsor. When designing social development initiatives it should not be assumed that local communities have the capacity or desire to step directly into externally imposed decision-making structures. A phased approach, accompanied by training and joint team building across groups, should be considered.

Dilemma 4— Disclosure

Disclosure is a crosscutting topic that affected virtually all aspects of the Pangué project. IFC made significant upgrades to its environmental and social review procedures, and disclosure policy during its involvement in Pangué. With each revision, the IFC disclosure requirement bar was raised, and IFC and the Sponsor were increasingly confronted by situations regarding the public release of studies, evaluations, and reports related to the environmental and social performance of the project. An important factor to note is that these changes were reflected in IFC's approach to environmental and social matters in 'real time,' as the Pangué project itself unfolded.

Lessons Learned

- **Limited or partial disclosure can raise more questions than answers, often obscuring positive elements of a project:** Without disclosure, IFC and the sponsor lose a valuable opportunity to gain credit for their efforts with regard to environmental and social concerns. Limited and partial disclosure does little to satisfy demand for information and creates an impression that IFC, and the project, have something to hide. IFC will strengthen its position when it promotes information sharing.
- **Disclosure and transparency are as important in principle as practice.** Transparency builds trust. Disclosure of project information, on principle, may be more important than the content of the documents themselves. IFC should endeavor to work with its sponsors on the presumption that disclosure is best practice.
- **All environment and social documentation should be fully disclosed:** IFC should agree with the sponsor upfront that all environmental and social documents relating to a project, including evaluations and audits, will be made public if there are no business confidentiality issues.
- **IFC should beware that “client confidentiality” does not become a hindrance to disclosure:** IFC should discern between legitimate business confidentiality concerns, and the importance of releasing relevant environmental and social project information.
- **Adopting a 'need to share' ethic rather than operating on a 'need to know' basis:** If IFC's work is to “add value”, it is of the utmost importance that it discloses the results of its efforts in the value-added arena. The “need to know” approach to disclosure should be replaced with a “need to share”, both internally and externally.
- **Disclosure itself has a development impact:** Access to information builds the capacity of local communities and other stakeholders to engage in the development process, and enhances their ability to partner and forge relationships with other stakeholders. It also promotes accountability by all parties.