

FACT SHEET: Chile's Alto Maipo Hydroelectric Project (PHAM)

A large-scale run of the river project, the PHAM is funded by several multilateral banks and is pitched as a project for the public good. However, domestic legal violations, allegations of violations of environmental and social standards of the IFC and IDB, and the irreversible damage to Chile's water resources have prompted Chileans to call for the project to be stopped.

Overview

Currently under construction, the Alto Maipo Hydropower Project (PHAM) is described as a run-of-the-river (ROR) project, which uses the natural flow of a river to generate electricity without the construction of a dam. In this case, however, the impacts on the watershed will be immense, at a scale unheard of for a typical ROR project. The waters of the Maipo's three principle tributaries will be diverted for more than 100 kilometers, passing through 67km of tunnels bored through the Andes Mountains. This will dramatically affect the water flows of the Maipo River, of its major tributaries and the underground aquifers, and cause large-scale damage to water access, farming, tourism and the environment.

The project is located about 50 km southeast of Santiago, the load center of Chile's power grid. It would have an installed capacity of 531 MW and an estimated output in excess of 2,100 GWh per year. The construction period for the project was supposed to be approximately five-years, but has been extended repeatedly; estimated costs are now more than four times greater than when the project began. Approximately 90% of total civil works are expected to be underground; 17 km of transmission lines will connect with Chile's central interconnected grid.

In recent years, more than 15,000 people, representing close to 100 community organizations, marched demanding the project's cancellation, calling instead for the protection, conservation and restoration of this critical watershed. The *¡No Alto Maipo!* campaign has become Chile's second largest environmental cause due to its broad media outreach and the diversity of participating organizations.

Project Sponsor, Major Shareholders and Project Finance

The project company, Alto Maipo SpA, was, until January 2017, 60% owned by AES Gener S.A. and 40% owned by Antofagasta Minerals S.A. AES Gener is a Chilean company owned by Virginia-based AES Corporation (71%), Chilean pension funds (14%) and public investors (15%). Antofagasta Minerals is a wholly owned subsidiary of Antofagasta plc, a Chilean-based copper mining group with interests in energy, transport and water distribution. Antofagasta plc is listed on the London Stock Exchange and is a constituent of the FTSE 100 index, and is, in turn, majority-owned by the Chilean business consortium Grupo Luksic.

The PHAM has been financed by nine banks. The IFC has provided a loan of US\$150 million,¹ while the Inter-American Development Bank gave US\$ 200 million.² The US Overseas Private Investment Corporation, DNB ASA (Norway), and KfW IPEX-Bank (Germany), and four Chilean banks have also invested. Currently estimated to be only 35% complete, the total project cost is now projected to be US\$2.4 billion, \$200-400 million dollars over the previous budget.³

On January 19, 2017, Luksic announced it was withdrawing from the project, at a loss of \$350 million. In Luksic's absence, Austrian construction company Strabag, which is in charge of up to 70% of the project's construction, purchased 7% ownership of Alto Maipo SpA. AES Gener has seen the value of its stocks drop approximately 30% over the last six months; the company is now seeking additional finance from international banks to fill the gap from Luksic's exit.

Broad Opposition from the Maipo Basin Community and Chilean Organizations

The Maipo river basin is located 30 miles east of Santiago. Despite being promoted as a project to serve the public interest, much of the energy generated at the PHAM will directly benefit mining interests, and will cause extreme hardship for the residents of the Cajón del Maipo and for Santiago's population of 7 million. The project's severe – and likely irreversible – impacts were not properly evaluated. This includes:

¹ IFC Project data: <https://disclosures.ifc.org/#/projectDetailESRS/842>

² IDB Project data <http://www.iadb.org/en/projects/project-description-title,1303.html?id=CH-L1067>

³ <http://www.ecosistemas.cl/2017/01/18/alto-maipo-llama-a-directorio-extraordinario-por-financiamiento-de-sobrecostos-de-la-obra/>

- **Dramatic limitations on water access:** As a very large-scale *'run-of-the-river'* project, it is estimated to reduce the Yeso, Volcán and Colorado Rivers by up to 60%. These rivers, the main tributaries in the upper reaches of the Maipo river watershed, are the main source of drinking water for the residents of Santiago, and irrigate more than 120,000 hectares of farmland.
- **Significant erosion:** The project will cause significant erosion to the riverbed, affecting private and public infrastructure, including many intakes for drinking water, irrigation, bridges, and other waterways.
- **Desertification:** In the last 10 years, Chile has suffered long-term historic droughts so extreme that the country's northern and central regions are now experiencing a process of desertification – a process exacerbated by mining, construction, cattle-rearing, plantations, firewood extraction, and other activity. The Maipo watershed serves a unique and indispensable role in regulating local climate and alleviating air pollution in Santiago. The Alto Maipo project, in further diminishing the flow of water, is likely to accelerate the region's desertification process.
- **Impacts on protected areas and tourism:** Chile's Cajón del Maipo is home to the Glacial Natural Monument (1994), two Nature Sanctuaries (1995 and 2008) as well as other protected areas. There is concern that highly valued ecological and cultural assets could be at risk, as well as their rich paleontological and archeological elements. Furthermore, the project could cripple the valley's value as one of the most important recreational and tourist areas in Chile, receiving millions of national and foreign visitors a year.
- **Human rights at risk:** According to the Chilean National Institution of Human Rights and international experts, the project puts several human rights at risk including the right to water, the right to live in a healthy and clean environment, the right to develop sustainable local economic activities, the right to information and participation, among others.

Complaints Filed at the World Bank Group and Inter-American Development Bank for Faulty Environmental Impact Assessment and Lack of Adequate Consultation

The significant impacts of the PHAM and its implications on natural resources prompted the IFC to list it as a Category A project, yet were never properly evaluated. During the Environmental Impact Assessment process, thousands of citizens, scientists and public service providers expressed concerns. Opponents highlight that the project is inefficient, unnecessary, and lacking evaluation of long-term viability. Ongoing construction challenges have resulted from improper assessments of the region's basic geology and hydrogeology, and the PHAM may never produce the quantity of electricity the company claims because the cumulative impacts of climate change and ongoing desertification were not assessed. A proper consultation was not carried out and community concerns were ignored. Moreover, company employees have carried out five strikes protesting inhuman work conditions.

Signs of pending environmental disasters are further evident from the Chilean government's recent move to penalize the company for 14 separate violations of environmental norms and obligations. The Chilean Environmental Superintendent, an oversight body within the Environmental Ministry, found evidence of unauthorized activity, problems with waste management, lack of reporting on environmental impacts, amongst a host of other issues.⁴

In January 2017, a coalition of Chilean and international organizations⁵ brought these concerns to the international community, filing complaints at the IFC's Compliance Advisory Ombudsman (CAO) and the IDB's Independent Consultation and Investigation Mechanism (MICI). They allege both banks approved funding for the project in violation of their own environmental and social policies.

The project's opponents further question that the PHAM is registered as a UNFCCC Clean Development Mechanism Project.⁶

⁴ <http://www.sma.gob.cl/index.php/noticias/comunicados/785-sma-inicia-proceso-de-sancion-contra-proyecto-hidroelectrico-alto-maipo>

⁵ Coordinadora Ciudadana No Alto Maipo, Ecosistemas, Center for International Environmental Law (CIEL), Natural Resources Defense Council (NRDC), International Rivers (IR), and Patagonia Inc.

⁶ UNFCCC-CDM Project data: <https://cdm.unfccc.int/Projects/Validation/DB/2CB7GPPZM1GN0OG90BPS2R3LL4O5LR/view.html>