

COMPLAINT LETTER

INDEPENDENT CONSULTATION AND INVESTIGATION MECHANISM

(MICI) INTER-AMERICAN DEVELOPMENT BANK (IDB)

ALTO MAIPO HYDROELECTRIC POWER PROJECT (PHAM), CAJÓN DEL MAIPO, CHILE

To:

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We the signatories of this letter and document represent the **COORDINADORA CIUDADANA NO ALTO MAIPO** [**NO TO ALTO MAIPO COORDINATING COMMITTEE**] (hereinafter, “the Coordinating Committee”), the non-governmental organization **ECOSISTEMAS**, and persons opposed to the **ALTO MAIPO HYDROELECTRIC POWER PROJECT** (hereinafter, PHAM) who reside in Cajón del Maipo and in the city of Santiago, in the Metropolitan Region of Chile.

This is where the PHAM is being built by the transnational corporation **AES GENER** and the company **ANFOGASTA MINERALS S.A.**, (hereinafter, “the Company”), which is part of the Chilean Luksic Group, with financing from international (IDB, IFC, OPIC, KfW, and DNB) and national banks (BCI, CorpBanca, Estado, and Itaú-Chile), and from Antofagasta Minerals S.A.

Our names and contact information is attached hereto.

We have suffered **and** will likely suffer additional harm as a consequence of the fact that the IDB has failed to comply with its **Relevant Operational Policies** applicable to the financing of a project like the PHAM, including most notably:

- OP-102: Access to Information Policy
- OP-703: Environment and Safeguards Compliance
- OP-704: Disaster Risk Management Policy
- OP-708: Public Utilities Policy
- OP-710: Operational Policy on Involuntary Resettlement

The representatives of the Coordinating Committee, Tomás González and Marcela Mella, as well as Juan Pablo Orrego, the President of Ecosistemas and Director of International Rivers, traveled

to Washington, DC in September 2015 to meet with representatives of the financial institutions headquartered in the United States that are financing the PHAM (IDB, IFC, and the guarantor bank of the U.S. government, OPIC). This meeting was requested because of the numerous intractable concerns about the risks posed by the PHAM that have not been seriously addressed by the Company, the financial institutions, or the Chilean State. The three Chilean leaders, accompanied by two representatives of CIEL, met with IDB staff members. Although OPIC officials had turned down the request for a meeting, two of them attended this one at IDB headquarters with no prior notice. Officials from both banks responded to the criticism of the PHAM put forth by the Coordinating Committee based on the studies commissioned by the Company to well-known consultants that the Chilean public did not consider to be suitable. The officials also informed the attendees of studies conducted by those same consultants and published on the IDB's institutional website that supposedly address some of the issues raised by the Coordinating Committee and other stakeholders. Neither the Company nor the lending institutions have proactively made these studies available to the public.

Some of the key issues raised by the Coordinating Committee at the meeting with IDB staff members were: a) The failure to consider, in the evaluation of the PHAM, the international precautionary principle and the preventive principle under Chilean environmental law. This should have put a halt to the evaluation, authorization, and initiation of this project, which clearly poses a risk to the irrigation and drinking water supply of Chile's capital, Santiago, and to the surrounding Metropolitan Region, a macro-region with more than seven million inhabitants that is undergoing a desertification process. The project also jeopardizes multiple other environmental services that the basin provides to the region. b) The irregularity of the project assessment, which was marred by lobbying and influence peddling; c) The alarming poverty, poor quality, and insufficiency of the studies done by the consultants, considering that it is such a high-risk project and a massive intervention in the strategic Maipo River Basin; and d) The financial institutions' failure to monitor compliance with the conditions imposed for the granting of credit. The officials offered rote responses, echoing the ones put forward by the Company pursuant to the consultants' studies.

The delegation also met with officials from the World Bank, the Department of the Treasury, and U.S. Senate Staff to convey the position of the Coordinating Committee and our complaints with respect to the PHAM. Finally, meetings were held with Victoria Márquez of the MICI-IDB, and Osvaldo Gratacós of CAO-IFC, who explained how these consultation and investigation mechanisms work and provided guidelines for filing complaints.

We, the members of the civil society organizations who oppose the PHAM, find it extremely concerning that these financial institutions, including the IDB, insist upon qualifying the PHAM favorably, in spite of all of the information that was presented to them in 2012 and 2013, and later in 2015. That information even demonstrates the economic infeasibility of the PHAM, given the significant decrease in flow rates in the waterways needed for its operation, the growing delays in its construction, the increased cost of the investment, and its social and environmental impacts at the local, regional, and national levels.

We respectfully ask the MICI to activate the Compliance Review Phase.

Attached to this letter is a Memorandum that goes into further detail regarding the context in which this project was approved, and the current status of its construction.

We respectfully ask the MICI to reply to this request.

Signed:

Marcela Mella [REDACTED]

Juan Pablo Orrego [REDACTED]

Coordinadora Ciudadana No Alto Maipo and Ecosistemas

With national support from: The Cajón de Maipo Chamber of Tourism; The Tour Operators' and Guides' Association of Cajón del Maipo; The Hotel and Tourism Association of Cajón del Maipo, and Movimiento Social por la Recuperación del Agua y la Vida [Social Movement for the Recovery of Water and Life]; Asamblea Agua y Soberanía de Puente Alto [Water and Sovereignty Assembly of Puente Alto].

With international support from: the Center for International Environmental Law (CIEL), International Rivers (IR), the Natural Resources Defense Council (NRDC), and Patagonia Inc.

Date: January 23, 2017

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DOCUMENTS SUPPORTING THE COMPLAINT LETTER

**Submitted to the Independent Consultation and Investigation Mechanism (MICI) of the
Inter-American Development Bank (IDB)**

Alto Maipo Hydroelectric Power project (PHAM), Cajón Del Maipo, Chile

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1. SUMMARY

In October 2013, the IDB invested US \$200 million in the development of the PHAM.¹ As discussed in detail throughout this document, we believe that the IDB failed to comply with its own mandate and policies by investing in this project.

The PHAM is a hydroelectric mega-project that represents a particularly severe intervention in the hydrological system of the upper Maipo River Basin, but also affects intermediate and lower areas of the basin. The Maipo River is the main water source for the Metropolitan Region, supplying around 70 percent of its current potable water demands, and nearly 90 percent of its irrigation needs.²

The Bank has classified this project environmentally and socially as a Category “A” project. This categorization requires that the project be evaluated pursuant to the highest environmental and social standards, and that those standards be applied during construction and throughout the life of the project. This has not taken place, nor is it currently taking place during the construction of the PHAM. Additionally, the environmental assessment process, failed to consider the critical aspects highlighted below.

Figure 1. Critical elements of the PHAM that were not assessed when it went through the Environmental Impact Assessment System (EIAS) and received a favorable Environmental Classification Resolution (ECR):³

- 1) Real effects of climate change and desertification
- 2) Ten consecutive years of drought in the basin affected by the project
- 3) Real flow rates of the rivers that will be affected
- 4) Effects on the sedimentology of the river
- 5) Effects of the project on glaciers and groundwater

¹ See: <http://www.iadb.org/en/projects/project-description-title.1303.html?id=CH%2DL1067>

² Source: Annex 08. River Basin Management and Climate Change. The case of the Maipo.

³ La ECR is the environmental permit or authorization that allows for the implementation and operation of the project according to current law in Chile.

- 6) Hydrogeological impact of the tunnels
- 7) Water quality prior to construction
- 8) Habitat of species like the torrent duck (*Merganetta armata*) in the area of the Volcán River, and the emblematic condor (*Vultur gryphus*) on the Colorado River
- 9) Cutting of native trees in areas that have not been assessed
- 10) Important social, economic, and cultural impacts, as well as impacts on the area's archaeological and paleontological heritage
- 11) Significant and successive changes to the engineering of the project from the time its environmental license (ECR) was obtained to the present, including: a) new construction sites and locations, lack of permits for the new construction works; b) changes to the tunnel construction methods and the management of contaminated water; and c) effect on fertile plains and high altitude wetlands, especially in Valle de la Engorda, El Yeso, and Aucayes.

There are also errors in the Company's project description and in representations made to the public. The official figures (published by the Chilean Environmental Assessment Service) indicate that the PHAM's annual production will be 2,500 GWh. However, this figure was obtained using records that overestimate the flow rates of the rivers. Independent calculations based on official statistics published by the National Water Bureau show that, due to the decreasing water flows of the Maipo River and its tributaries (average decrease of 23.5 percent between 2007 and 2014), the project would only have an annual output of 1.790 GWh.⁴

The PHAM does not meet the financing requirements established by this body and by most of the international financial institutions. The following points summarize why the PHAM fails to meet the central and basic elements of assessment, which also form part of the Bank's policies and directives:

- *A comprehensive assessment was not conducted:* Not all of the users of the basin were considered, and a very limited area of influence was established for the project. An appropriate assessment of alternatives was never conducted, nor have the project's risks been properly assessed or managed.
- *The cumulative effect of climate change was not assessed:* The central zone of Chile has experienced a record eight consecutive years of drought, a fact that the Company failed to take into account, and which Chilean authorities are defining as a "desertification process." With this drought, the volume of water in the rivers of the Maipo River Basin has dropped by 37 percent.⁵
- *There was no effective citizen participation:* The Company refused to open a dialogue with other users of the basin's water. The process for citizen participation in the environmental assessment process had no real impact on the design of the project, and did not legitimize it socially. On the contrary, it is perceived as a flawed process. None of the citizen observations presented in writing received an adequate response.
- *The project's environmental and social performance is not being managed:* Fourteen complaints have been filed with the Superintendency of the Environment, and various appeals for protection have been filed and are currently pending.

⁴ See: Annex 05. Potential contribution of hydroelectric power generation and financial rate of return (Stern, 2014).

⁵ See: "Atlas del Agua. Chile 2016", Capítulo 2, p. 62, Tabla 2.17. "Comparación del caudal medio anual con el caudal medio de los años 2013-2014 en 40 estaciones seleccionadas". Available at: <http://www.dga.cl/atlasdelagua/Paginas/default.aspx>

- *The PHAM is inefficient:* Based on an analysis of the available information on other renewable energy projects, it is evident that the PHAM is not only inefficient but is also practically the least efficient electric power project to be developed in Chile, absolutely exceeding the costs of other initiatives. By way of example, and in comparison to clean forms of power generation—which also face little public opposition and create few disputes—we can cite the El Romero Solar photovoltaic project, with an output of 246 MW. This project entailed a US \$343 million investment.⁶ In other words, it has a similar capacity to each one of the PHAM’s power stations which, individually, would cost US \$1.1 billion each—nearly triple the cost of the aforementioned solar project.⁷ In addition, the relationship between the installed capacity of the PHAM and the size, extent, and risk levels of the intervention in the basin demonstrates that it is a highly inefficient project.
- *Appropriate working conditions are nonexistent:* This has been evidenced by five different strikes involving contractors hired by the Company, dismissals and workplace accidents during the construction of the project, and the Company’s anti-union practices.
- *Violation of human rights:* This project has been cataloged by the National Institute of Human Rights as one of the 100 conflicts reportedly violating human rights in Chile.⁸ According to the Institute, the human rights at stake are the right to property, the right to a pollution-free environment, the right to water, the right to participation, the right to access to public information, and the right to territory and natural resources (ILO Convention 169). An exemplary case that we highlight later in this document—and in Annex 02, Case of El Alfalfal—is the town of El Alfalfal.

For this and other reasons developed extensively in the pertinent sections of this document, we allege that the PHAM does not comply with the following Relevant Operational Policies:

- OP-102: Access to Information Policy
- OP-703: Environment and Safeguards Compliance
- OP-704: Disaster Risk Management Policy
- OP-708: Public Utilities Policy
- OP-710: Operational Policy on Involuntary Resettlement

⁶ Source: <http://www.emol.com/noticias/Economia/2016/11/10/830548/Ponen-en-marcha-en-Vallenar-la-planta-solar-fotovoltaica-mas-grande-de-Latinoamerica.html>

⁷ For the complete analysis, see: Annex 01. Analysis of the Efficiency of the PHAM.

⁸ See: “Mapa de conflictos socioambientales en Chile” (INDH, 2015), p. 148. Available at:

2. PROJECT DESCRIPTION

Inter-American Development Bank- Project Number CH-L1067⁹

The PHAM consists of the construction and operation of two hydroelectric plants located in the lower part of the Maipo River Basin, approximately 50 km southeast of Santiago, Chile. In the upper basin, the PHAM will capture the main tributaries that feed the Maipo River, directing them to tunnels measuring 67 km in total length, and 6 to 8 meters in diameter. The tributaries belong to the Colorado, Volcán, and Yeso Rivers. The project will transfer the water from these three rivers to tunnels in order to return it to the Maipo River 100 km downstream.

According to official information from the Company, it will take approximately five years to build the project. However, this information increasingly differs from the real implementation times, since the PHAM has already been under construction for nearly four years and is far from being completed.

In recent months the Company has reported—through the media—a delay in the timeline for the execution of the PHAM’s activities stemming from engineering design and construction problems in the tunnel.¹⁰ This delays the timeline presented in the environmental assessment, increasing the duration of the construction phase and therefore extending the period during which specific environmental and social impacts will be felt in the area at this stage of the PHAM. The extension of these time periods and their negative consequences have not been assessed by the authority. These difficulties and delays demonstrate the superficiality and poor quality of the studies performed.

⁹ More information is available at: <http://www.iadb.org/en/projects/project-description-title,1303.html?id=CH%2DL1067>

¹⁰ Source: <https://www.df.cl/noticias/empresas/energia/aes-gener-oficializa-atraso-de-alto-maipo-y-pospone-un-ano-entrada-de/2016-02-24/212541.html>; <http://www.revistaei.cl/2016/02/25/proyecto-alto-maipo-alcanza-un-24-de-avance-pero-apertura-se-pospone-en-un-ano/#>

Figure 2. Map of the PHAM's location¹¹



The Company has promoted the PHAM by projecting and declaring an installed capacity of 531 MW and an annual output of 2,500 GWh. It has done so even though independent calculations based on official statistics published by the National Water Bureau show that, due to the diminishing water levels of the Maipo and its tributaries (average decrease of 23.5 percent from 2007 to 2014), the project will only have an annual output of 1.790 GWh.¹²

The PHAM is described as a run-of-the-river (ROR) project because it does not provide for the construction of a dam. Nevertheless, nearly all of the water from the Colorado, Yeso, and Volcán Rivers will be captured and diverted into the tunnels. There is considerable uncertainty with respect to the decline in the flow rates of those tributaries as a result of the diversions. According to independent calculations, with the implementation of the PHAM, the reduction in the flow rates of the tributaries of the Maipo could be much more significant than projected by the Company—60 to 90% of their natural flow rates—and this would be in the context of the desertification process and natural decline in the flow rates of the rivers already affecting Chile's northern and central regions. The diversions would reduce those flow rates to more than 100 km of the river valleys that make up the Maipo River Basin; this means that the winter flow rates of the Maipo River would look more like those of a minor tributary than those of the Metropolitan Region's principal river. The water will be diverted to the turbines through various tunnels totaling 67 km in length. Once full, the tunnels will

¹¹ Source: <http://www.altomaipo.com/>

¹² See: Annex 05. Potential contribution of hydroelectric power generation and financial rate of return (Stern, 2014).

contain 2 million cubic meters of water. This quantity of water is equivalent to the content of the reservoirs of major hydroelectric plants. Therefore, the project scale of the PHAM is clearly larger, and its operational design features, level of intervention in the basin, and impacts are much greater than a true ROR facility.

This improper categorization of the PHAM as an ROR project was done for the purpose of minimizing public and investor perceptions about its potential environmental and social impacts.

It bears noting that in Chile, according to the provisions of the Water Code and the regulations of the National Water Bureau, non-consumptive water rights¹³ such as those held by the Company for the PHAM require that the water be returned, after passing through the turbines, in the same quantity and quality as when it was captured. The law further stipulates that the exercise of this right must not limit the opportunities of third parties to use that water. Nevertheless, the PHAM diverts water from three different sub-basins, returning less water to the river (due to the fact that the groundwater deposited in underground water and aquifer systems is being affected by the tunnels), and water of a different quality (completely altered in terms of temperature, oxygenation, and sediments, since the three rivers have different qualities). Additionally, because of the impact on these waterways, the final amount delivered to the Maipo River will probably be diminished due to the stagnation of the water and the increase in temperature and evaporation along the riverbanks. Clearly, the way in which the PHAM would use the water from the tributaries and the Maipo River would severely limit the use of that water by other users. All of this amounts to an unlawful situation under Chilean law.

With respect to the investment needed to carry out the project, the figure has varied significantly over time. This information has not been disclosed clearly and transparently by the Company. Most notably, the amount presented to the authority responsible for assessing the project (and therefore to the public during the citizen participation process and throughout the project's execution) is much lower than the real estimated cost of the investment, which continues to increase as the project continues to fall behind schedule.

At the outset, according to the information published in the Environmental Impact Assessment System, the estimated cost of the PHAM was US\$ 600 million.¹⁴ Later, in 2012, the media reported that the project would increase the investment by 60 percent, indicating an increase from US\$ 1 billion to US\$ 1.6 billion.¹⁵ Nevertheless, and according to the information published on the IDB's website, the project reportedly cost US\$ 2.05 billion,¹⁶ of which the IDB would contribute US\$ 200

¹³ Water Code, 1981 - ARTICLE 14 – The right to non-consumptive use is that which allows the use of water without its consumption, and requires that the water be returned in the manner determined in the instrument for the acquisition or establishment of the right. The water shall always be extracted and returned in a manner not prejudicial to established third party rights to the same water, with respect to its quantity, quality, substance, availability of use, and other particularities.

www.bcn.cl – Library of the National Congress of Chile

¹⁴ Source: http://www.e-seia.cl/seia-web/ficha/fichaPrincipal.php?modo=ficha&id_expediente=2227972

¹⁵ Source: <https://www.df.cl/noticias/empresas/energia/costo-de-alto-maipo-sube-hasta-us-1-600-millones-y-obras-comenzaran-en/2012-12-10/205106.html>

¹⁶ Source: <http://www.iadb.org/es/proyectos/project-information-page.1303.html?id=CH-L1067>

million in financing.¹⁷ Recently, in July 2016, the Company announced an increase that could be 20 percent over the original budget (which, as we can observe, has never been clear) and a new delay in construction.¹⁸ According to information published in late August 2016, the final cost of the initiative reportedly fluctuates between US\$ 2.2 and US\$ 2.4 billion.¹⁹

The PHAM was entered into the Environmental Impact Assessment System for the first time on June 5, 2007. The initial project called for the use of the water resources of the Laguna Negra basin, which are designated exclusively to supply potable water to the Metropolitan Region. On the eve of the vote to decide whether to approve or reject the project on environmental grounds, and knowing that it was going to be rejected, the Company withdrew the project from the environmental assessment.

The PHAM was again submitted for an environmental assessment on May 22, 2008. This new version eliminated the use of Santiago's potable water reserves and made other minor changes. Nevertheless, that water will in fact be used, thanks to an agreement with the Aguas Andinas sanitation company (see Annex 12, section "Aguas Andinas and the risk to Santiago's potable water supply"). The PHAM finally obtained a favorable Environmental Classification Resolution on March 30, 2009.

In view of the growing controversy and public opposition to the PHAM, as well as the complaints filed by citizens, on the initiative of several representatives, the House of Representatives of the Chilean Congress established a Special Investigating Committee. Its mission was to investigate "Irregularities in the Approval of the COREMA RM²⁰ for the Alto Maipo Hydroelectric Power Project."²¹ The Committee held a hearing with representatives of various organizations, directors of public utilities, and regional and national public servants involved in the environmental assessment of the project.

The Committee concluded that there was sufficient background information to demonstrate that this project should not have been approved under the conditions in which it was presented.

The PHAM secured financing only once AES Gener reached an agreement with Antofagasta Minerals, agreeing to the shareholder participation (40 percent) of the Luksic Group, the parent

¹⁷ Source: <http://www.iadb.org/en/projects/project-description-title.1303.html?id=CH%2DL1067> (Documents, Approved, "Chile. Loan 3008A/OC-CH to Alto Maipo SpA")

¹⁸ Sources: <http://www.latercera.com/noticia/negocios/2016/08/655-692833-9-aes-gener-advierte-que-costo-del-proyecto-alto-maipo-podria-elevarse-hasta-20.shtml>; <http://www.emol.com/noticias/Economia/2016/08/17/817686/AES-Gener-preve-que-el-costo-de-Alto-Maipo-aumentara-en-un-20-de-su-presupuesto.html>; <http://www.nuevamineria.com/revista/alto-maipo-alza-en-costo-podria-superar-el-20-y-aes-gener-negocia-con-contratistas/>; <http://www.t13.cl/radio/negocios/conexion-tele13/noticia/consorcio-financia-alto-maipo-habria-frenado-entrega-dineros>

¹⁹ Source: <http://www.revistaei.cl/2016/08/25/alto-maipo-tras-alza-costo-del-proyecto-sera-casi-triple-una-central-gas-natural/#>

²⁰ COREMA RM stands for "Comisión Regional de Medio Ambiente de la Región Metropolitana" [Regional Environmental Commission of the Metropolitan Region].

²¹ Additional background information on the Special Investigating Committee is available at: https://www.camara.cl/prensa/noticias_detalle.aspx?prmId=36510; Annex 10. Session 14.01.2010 National Congress (Chamber-Voting Second Part Report PHAM-p.8-12). It bears noting that we cannot provide a link to access the Committee's complete report, as it is not available online. It should be available on the website of the National Congress and/or in the Library of the National Congress, but is not. Attempts to access the document through the link result in an error message.

company of Antofagasta Minerals, in the PHAM. It is only in this context that the national and international financial institutions granted the credit needed for the project, agreeing to the participation of the Luksic Group as a sufficient guarantee. The banking consortium that was established includes nine banks: three headquartered in the United States (IDB, IFC, and OPIC), three Chilean banks (Banco de Crédito e Inversiones, Banco Estado, CorpBanca/Itaú-Chile), the German bank KfW IpeX-Bank GmbH, and the Norwegian bank DNB Bank ASA.

Recently there has been growing doubt about the financial viability of the PHAM, especially in light of the new context of the Chilean electrical energy market. We note in particular the words of Francesco Starace, CEO of ENEL, who stated in October 2016 that *“It does not make much sense to add new power plants to the system.”*²² This is due to the fact that there is an excess of installed capacity in the market for the coming years. Accordingly, the CEO of one of the largest and most important generating plants in the country—the parent company of the HidroAysén Hydroelectric Project—explained that, in his analysis, *“In Chile, the balance between energy produced and energy consumed is nearing a very tight equilibrium, and if nothing changes, we think that in two or three more years the country may have excess production that the demand cannot absorb.”*²³

Specifically, and with respect to the PHAM, this has created tensions between the two partners behind the project (AES Gener and Antofagasta Minerals). The CEO of AES Corp, the parent company of AES Gener, acknowledged in November 2016 that the PHAM is now a *“less attractive”* project.²⁴ One of the problems is that the project was intended to operate in a market with values around US\$ 100 per MWh, much more than the values that came out of the most recent competitive bidding process for electric power, which were around US\$50 per MWh.²⁵ With respect to the position of the Luksic Group, the owner of Antofagasta Minerals, it bears noting that the president of the group’s parent company, Andrónico Luksic, stated to the press that: *“Undoubtedly, Alto Maipo has been tremendously costly for the Luksic family, and for me in particular.”*²⁶ In the September 3, 2016 edition of the newspaper *La Tercera*, A. Luksic was asked, *“If you had to make a decision now, would you invest in this project [PHAM] again?”* to which he answered, *“Not under any circumstances.”* At the same time, and with respect to the most recent increase in the cost of the investment needed for the PHAM, the CEO of Antofagasta PLC stated that *“The mining industry is going through a difficult time, so it is not easy for us to contribute additional funds in that context.”*²⁷

If the project continues to move forward, it is possible that the IDB, as well as the other banks, will have to assume this additional cost overrun, which AES-Gener estimates (01/20/17) could reach 22%. This once again demonstrates the absurdly poor quality, in all of its aspects, of the assessment of the PHAM, including the assessment performed by the banks. The PHAM is a significant financial risk for the Company and the lending banks: there is no market for the placement of its production except for the contract with Pelambres, and its cost is turning out to be exorbitant.

²² Source: <http://www.ecosistemas.cl/2016/10/03/francesco-starace-no-tiene-mucho-sentido-anadir-nuevas-centrales-al-sistema/>

²³ *Id.*

²⁴ Source: <http://www.latercera.com/noticia/dueno-aes-gener-reconoce-alto-maipo-hoy-proyecto-menos-atractivo/>

²⁵ *Id.*

²⁶ Sources: <http://www.latercera.com/noticia/sube-la-tension-entre-aes-gener-y-el-grupo-luksic-por-alto-maipo/>; <http://www.latercera.com/noticia/proximo-ano-sera-clave-desarrollo-del-proyecto-alto-maipo/>

²⁷ Source: <http://www.latercera.com/noticia/sube-la-tension-entre-aes-gener-y-el-grupo-luksic-por-alto-maipo/>

The IDB approved the financing of the PHAM in October 2012. At that stage, the environmental aspects of the project had already been approved by the Chilean authorities and there was no possibility for it to be substantially modified. The Bank made the decision to invest very rapidly, which indicates that it did not take sufficient time to properly evaluate and study the information presented by the Company. Additionally, when the project was assessed by the Chilean environmental authorities, the information submitted to the authorities and to the public (for instance, with respect to the amount of the investment, the quantity of energy generated, the recipient of the energy, and the time frames for construction) was different from what it has submitted in subsequent years; the information released by the Company and its associates (through different channels, including the media) has varied constantly, which makes it difficult to identify the official and real information about the PHAM.

An illustrative example of this is the case of a report prepared by the program “En La Mira,” on the Chilevisión television channel, called “Aguas Turbulentas en el Cajón del Maipo” [“Turbulent Waters in Cajón del Maipo.”] On that program, a senior PHAM executive, Deputy Director Armando Lolas, stated with respect to the contract to sell energy from the PHAM to the Los Pelambres mining company that, “*in terms of generation, we have 160 MW, I think,*” but was alluding to a contract between AES Gener and the Antofagasta Minerals mining company (without clearly explaining which contract). The journalist then asked him whether the PHAM “*is going to produce approximately 200, 250,*” to which the deputy director answered yes. It is not clear then whether they are referring to installed capacity or energy to be produced, how much is in fact going to be produced by the PHAM, or how much of this energy is earmarked for a mining project of Antofagasta Minerals. This type of confusion has been a constant in the Company’s way of working and operating, which makes it difficult to have a fluid, transparent relationship based on public trust.²⁸

These kinds of situations, among others, are what raise concerns about the conditions and quality of the information with which decisions about the PHAM have been made, by both the Chilean authorities and the financing banks.

3. NONCOMPLIANCE WITH THE RELEVANT OPERATIONAL POLICIES OF THE IDB

The PHAM is a hydroelectric mega-project that intervenes drastically in the hydrological system of the upper Maipo River Basin, the source of the water consumed by 40 percent of the Chilean population. Given the scale of this project’s intervention in the Maipo River Basin, many of the policies of the IDB simply cannot be observed.

Although this project was presented as a run-of-the-river (ROR) power plant, technically and legally it is not one. A project with 67 km of tunnels that diverts the water from three sub-basins and returns it to the Maipo River 100 km downstream, altering the quality and quantity of that water, and limiting many users’ rights to the water from four rivers is not a true ROR hydroelectric project.

²⁸ The television program is available at: http://www.chilevision.cl/en_la_mira/capitulo-completo/temporada-2014/aguas-turbulentas-en-el-cajon-del-maipo-25-de-junio/2014-06-26/001913.html

This project was approved by the Chilean authorities in 2009, when its estimated cost was one-fourth of the current cost. In addition, the process for the approval of its Environmental Impact Study was conducted with substantial irregularities and inaccurate information. For instance, the Company stated that the electricity produced would supply the general public; however, a large part of it is earmarked for a private mining project, Los Pelambres, of Antofagasta Minerals, located 250 km north of the PHAM. In the contract signed between the two companies, the Los Pelambres project of Antofagasta Minerals is guaranteed unrestricted access to up to 110 MW from the PHAM, for 20 years, in exchange for a 40 percent investment stake in the PHAM.²⁹

The IDB cannot improve the sustainability of a project that is, from the beginning, socially, environmentally, and even economically unsustainable. The Project description on the Bank's website states:

*“The Alto Maipo Hydroelectric Power project consists of the design, construction, operation and maintenance of two run-of-the-river hydroelectric plants (in hydraulic series) for a total of 531MW, located in the Maipo River Basin, 50 km southeast of Santiago, Chile, in the district of San José de Maipo.”*³⁰

Two particular elements of this description give rise to confusion:

- 1) *The PHAM is not a true run-of-the-river hydroelectric plant:* It is a hybrid hydroelectric project that involves the construction of 67 km of tunnels, diverting water from three sub-basins and returning the water 100 km downstream, its quantity and quality altered. It is not a true ROR hydroelectric project.
- 2) *The generation capacity of the PHAM is not clear:* The 531 MW only indicates the installed capacity of the PHAM. Official information indicates that the PHAM will have an annual output of 2,500 GWh.³¹ However, this figure was obtained using records from 60 years ago that underestimate the flow rates of the rivers. Independent calculations based on official statistics published by the National Water Bureau show that, due to the decreasing water flows of the Maipo River and its tributaries (average decrease of 23.5 percent between 2007 and 2014), the project would only have an annual output of 1.790 GWh.³²

With respect to this request, there are several points we are asking the MICI to review:

- a) **Irregularities in the evaluation and approval of the Environmental Impact Study and the granting of the environmental license for the PHAM:** Clearly, there was an incomplete, inadequate, and irregular—as well as controversial—evaluation, as summarized in the following points: i) there was a lack of information to establish appropriate baselines; ii) the evaluation of alternatives failed to include a no-project option; iii) the identification of the area of influence and critical risks and variables were not considered or assessed; and iv) others.

²⁹ See: AES Gener, 2015. Annual Report, p. 68-69.

³⁰ Source: <http://www.iadb.org/es/proyectos/project-information-page.1303.html?id=CH-L1067>

³¹ Source: Record of the Environmental Assessment Service of Chile: http://www.e-seia.cl/seia-web/ficha/fichaPrincipal.php?modo=ficha&id_expediente=2227972

³² See: Annex 05. Potential contribution of hydroelectric power generation and financial rate of return (Stern, 2014).

There were also problems involving transparency, inconsistencies, and irregularities during the assessment of the project, including: i) the promotion of the project as one of national interest without transparency about the end use of the energy to be produced; ii) lack of transparent and accurate information with respect to the cost of the project and the quantity of energy to be produced; iii) erroneous categorization as a run-of-the-river hydroelectric plant when it plainly does not meet those requirements, given that the scale and impact of the project are clearly greater than those of a ROR plant; iv) existence of a controversial agreement with the sanitation company that supplies potable water to a large part of the population of the Metropolitan Region; and v) significant public policy inconsistencies and irregularities in the environmental assessment of the project documented by the Special Investigating Committee established by the National Congress.

- b) **No consideration of climate change:** The cumulative effect of climate change was not assessed. The central zone of Chile has experienced a record eight consecutive years of drought, a fact that the Company failed to take into account, and which authorities are defining as a “desertification process.” With this drought, the volume of water in the rivers of the Maipo River Basin has dropped by 37 percent.³³
- c) **Lack of effective citizen participation:** The Company refused to open a dialogue with other users of the basin’s water. The process for citizen participation in the environmental assessment process had no real impact on the design of the project, and did not legitimize it socially. On the contrary, it is perceived as a flawed process. None of the citizen observations presented in writing received an adequate response.
- d) **Failure to manage the project’s environmental and social performance:** Fourteen complaints have been filed with the Superintendency of the Environment to date, and various appeals for protection have been filed and are currently pending.
- e) **Inefficiency of the PHAM:** Based on an analysis of the available information on other renewable energy projects, it is evident that the PHAM is not only inefficient but is also practically the least efficient electric power project to be developed in Chile, absolutely exceeding the costs of other initiatives. By way of example, and in comparison to clean forms of power generation—which also face less public opposition and have not created as many tensions and disputes—we can cite the El Romero Solar photovoltaic project, with an output of 246 MW. This project entailed a US \$343 million investment.³⁴ In other words, it has a similar capacity to each one of the PHAM’s power stations which, individually, would cost US \$1.1 billion each—nearly triple the cost of the aforementioned solar project.³⁵ In addition, the relationship between the installed capacity of the PHAM and the size, extent, and risk levels of the intervention in the basin demonstrates that it is a highly inefficient project.
- f) **Inadequate working conditions:** This has been evidenced by five different strikes involving contractors hired by the Company, dismissals and workplace accidents during the construction of the project, and the Company’s anti-union practices.

³³ See: “Atlas del Agua. Chile 2016”, Capítulo 2, p. 62, Tabla 2.17. “Comparación del caudal medio anual con el caudal medio de los años 2013-2014 en 40 estaciones seleccionadas”. Available at:

<http://www.dga.cl/atlasdelagua/Paginas/default.aspx>

³⁴ Source: <http://www.emol.com/noticias/Economia/2016/11/10/830548/Ponen-en-marcha-en-Vallenar-la-planta-solar-fotovoltaica-mas-grande-de-Latinoamerica.html>

³⁵ For the complete analysis, see: Annex 01. Analysis of the Efficiency of the PHAM.

- g) **Violation of human rights:** This project has been cataloged by the National Institute of Human Rights as one of the 100 conflicts reportedly violating human rights in Chile.³⁶ According to the Institute, the human rights at stake are the right to property, the right to a pollution-free environment, the right to water, the right to participation, the right to access to public information, and the right to territory and natural resources (ILO Convention 169). An exemplary case that we highlight later in this document—and in Annex 02, Case of El Alfalfal—is the town of El Alfalfal.

Below we review each one of the Relevant Operational Policies that we believe are not being followed by the PHAM. Reference is also made to the Policy Directives when pertinent.

- OP-102
- OP-703
- OP-704
- OP-708
- OP-710

OP-102: ACCESS TO INFORMATION POLICY³⁷

According to section II Responsibilities, point 2.1: *“The Policy requires that the Bank make publicly accessible information that it creates and certain information it receives during the course of doing business.”*

The PHAM fails to fully comply with this policy for a number of reasons. First, on the IDB’s web page about the project,³⁸ some of the links to downloads only work randomly and are not easy to access.³⁹ In addition, neither the Bank nor the Company have made a serious effort to disclose those documents to the community. It is clear from a review of the website that it is not in an easily accessible, user-friendly format that enables all citizens, with different types and levels of expertise, to easily access the content.

With respect to information about the project, there are—and there have been—significant problems gaining access to clear, official information about: i) the quantity of electricity that the PHAM would produce; ii) the quantity of electricity that the PHAM would give to the Los Pelambres mine; iii) the destination of the energy; iv) the project type and its real impacts; v) construction times; and vi) investment amounts.

The Company has promoted the PHAM by projecting and declaring an installed capacity of 531 MW and an annual output of 2,500 GWh. In addition to the fact that this calculation underestimates the current flow rates of the Maipo River—diminished as a result of drought and increased desertification—the Company has not, to date, informed the public with certainty about how much energy the PHAM

³⁶ See: “Mapa de conflictos socioambientales en Chile” (INDH, 2015), p. 148. Available at:

<http://mapaconFLICTOS.indh.cl/assets/pdf/libro-web-descargable.pdf>

³⁷ Source: <http://www.iadb.org/document.cfm?id=39430506>

³⁸ See: <http://www.iadb.org/es/proyectos/project-information-page.1303.html?id=CH-L1067>

³⁹ The following link presents an example: “CPG5 Sitios protegidos-ANNEXS”:
<http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38162244>

will really be able to generate, let alone how much of that electricity will be delivered to the Los Pelambres project of Antofagasta Minerals.

The situation with respect to construction times is similar. According to official information from the Company, the construction of the PHAM will take approximately five years; nevertheless, this information is inconsistent with the real implementation projections, since the project has already been under construction for four years and is very far from being finished.

Something similar has occurred with the information pertaining to the investment amount, as explained on page 9.

Finally, the PHAM is described as a run-of-the-river (ROR) project because it does not provide for the construction of a dam. Nevertheless, nearly all of the water from the Colorado, Yeso, and Volcán Rivers will be captured, reducing the flow rates of the tributaries of the Maipo by much more than projected by the Company—60 to 90% of their natural flow rates, according to independent calculations—and this would be in the context of the desertification process already affecting Chile’s northern and central regions. The diversions would reduce those flow rates to more than 100 km of the river valleys that make up the Maipo River Basin. This improper categorization of the PHAM as an ROR project was done for the purpose of minimizing public and investor perceptions about its potential environmental and social impacts.

OP-703: ENVIRONMENT AND SAFEGUARDS COMPLIANCE⁴⁰

The assessment, construction, and execution of the PHAM goes against the objectives of this Policy, and to a greater extent objective (ii), OP-703, to “*ensure that all Bank operations and activities are environmentally sustainable as defined in this Policy.*” We the groups that promote the sustainability of the Maipo River Basin maintain that the PHAM is not socially, environmentally, or economically sustainable at its assessment stage (the environmental license was approved with irregularities) or its construction stage. To illustrate this point, we have prepared two documents, one that summarizes the main social and environmental impacts of the PHAM, and a second one that summarizes the main problems with the environmental assessment of the project.⁴¹

Below we highlight seven aspects related to compliance with this standard that raise issues in the case of the PHAM, and later will review some of the policy’s directives in greater detail:

- a) Comprehensive assessment to identify the environmental impacts, risks, and opportunities of projects
- b) Comprehensive assessment to identify the social impacts, risks, and opportunities
- c) Effective citizen participation
- d) Efficient use of resources and pollution prevention

⁴⁰ Source: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=665902>

⁴¹ See: Annex 11. Incomplete, Inadequate, and Irregular Environmental and Social Assessment and Annex 12. Principal Social and Environmental Impacts of the PHAM.

- e) Health and safety of the community
- f) Conservation of biodiversity and sustainable management of natural resources
- g) Adverse effects on cultural heritage

(A) Comprehensive Assessment to Identify the Environmental Impacts, Risks, and Opportunities of Projects

- The PHAM entails impacts on and alterations to the hydrological system of a basin that supplies potable water to the capital of a country inhabited by 7 million people. Nevertheless, the project has confined the impacts to a much smaller area of influence that leaves out Santiago and the entire Metropolitan Region.
- The assessment of the project failed to consider a critical variable: climate change. The Company omitted this aspect from all of its assessments and presentations, notwithstanding the fact that the environmental authority, through the director of the then-National Environmental Commission (now the Ministry of the Environment) requested the respective studies. This did not occur, and the project was nevertheless approved by the Chilean environmental authorities.

(B) Comprehensive Assessment to Identify the Social Impacts, Risks, and Opportunities

- The PHAM jeopardizes the potable water supply of a significant part of the population of the Metropolitan Region, as well as the environmental integrity of a river basin that is essential to the quality of life of the regional population.
- At the local level, the PHAM jeopardizes the health and safety of children and adults who face the prospect of explosions, noise, vibrations, increased traffic, and water pollution, among other things. The PHAM has also meant an increase in crime, prostitution, and drug trafficking as a result of the massive influx of outsiders. The Company anticipates that some 4,500 workers will be present during peak construction.
- An important impact, especially during the construction stage, has been the noise and vibrations caused by tractor-trailer and heavy construction vehicle traffic along the sole access route. These types of impacts have been felt predominantly in towns like El Alfalfal and Los Maitenes. According to testimony from residents of those places, the Company has failed to respect the provisions of the Environmental Classification Resolution, working outside agreed times, driving at high speeds, failing to exercise proper oversight, etc. (see Annex 04). There have been a number of mobilizations by those affected by the project, even including PHAM workers. On September 15, 2016, the community of Los Maitenes closed the road, blocking the contractors' access to the project. They asserted that, *"There are multiple problems affecting the inhabitants of this town, who are tired of the abuses and lies about Alto Maipo."*⁴²
- The assessment of the social impacts was not comprehensive. The project in no way takes responsibility for its social impact in the area in which it is involved. One of the town's

⁴² Source: <http://www.biobiochile.cl/noticias/nacional/region-metropolitana/2016/09/15/vecinos-de-maitenes-cortan-ruta-para-protestar-contra-proyecto-hidroelectrico-alto-maipo.shtml>; <http://www.cooperativa.cl/noticias/pais/manifestaciones/vecinos-se-manifiestan-en-maitenes-contra-alto-maipo/2016-09-15/104124.html>

principal economic activities is tourism. According to the estimates of the Cajón de Maipo Chamber of Tourism, this region currently receives some 3.6 million visitors annually, and every weekend nearly 25,000 people (and 6,000 vehicles) are drawn to the natural beauty of the El Yeso Dam, the El Morado National Monument, Río Olivares Park, and the rustic thermal baths of Byears Colina and Termas del Plomo.⁴³

- According to Chamber of Tourism President Andrés Ahumada, tourism accounts for 1,500 direct jobs and 3,700 indirect jobs in the area. Ahumada estimates that around 70 percent of the jobs in Cajón del Maipo are tourism-related.⁴⁴ This kind of impact was not considered during the assessment, nor were any alternatives presented for its mitigation or compensation. The area's touristic value will be affected by this project during the construction phase by the roadway and transportation impacts, the detonation of explosives, and air and water pollution.
- Another effect on the local economic activity is related to the alteration of the macro balance of the basin. One of the social consequences of this impact is that it affects the source of employment that depends on agriculture and the extraction of sand and gravel from the river. This small-scale activity, together with tourism and agriculture, are the main economic and social subsistence activities in the basin. This entire socioeconomic and environmental network will be affected by the project, and it was not truly evaluated, mitigated, or compensated during the assessment of the PHAM.
- The PHAM guarantees the hiring of 700 local residents during the project's construction phase. The rest of the workforce (3,800 people) will come from outside the community, with the resulting "boom town effect," followed by their departure from the area once the construction is finished. The local jobs are not permanent, and will last only during the project's construction phase.
- The Company—as in many other cases in Chile—and within the framework of corporate social responsibility, established an agreement through the Los Maitenes Foundation to provide US \$200,000 per year for a period of 30 years to the community of San José de Maipo. This will be done through a competitive fund. This kind of compensation is problematic in several respects: 1) Under Chilean law, environmental harm cannot be offset by non-environmental measures like competitive funds. Nevertheless, this measure was implemented anyway. Chile does not have laws regulating the provision of this type of non-environmental compensation; 2) The total amount of this measure is no more than US \$6 million for the community—an insignificant sum if we consider the investment amount, rate of return, and impacts of the project; 3) The amounts allocated are inadequate for a town with a population of 14,000 inhabitants, many of them low-income.
- Finally, we should note the impact that the project has had on the local social fabric, given the significant social and economic vulnerability of the country and the area in which the PHAM is being built. When a corporation arrives in a town and offers economic benefits to the community in exchange for accepting a project, internal divisions often arise. Some people need the income that the Company offers and the financial compensation, even if it only

⁴³ <http://www.mma.gob.cl/1304/w3-article-54433.html>

⁴⁴ Source: Information provided by Andrés Ahumada (December 13, 2016).

provides temporary relief to their economic insecurity. There is a consensus that it is not ethical, moral, or sustainable to trade environmental goods and long-term quality of life for short-term financial benefits. This has led to conflicts within communities (see Annex 04). In Chile, this policy of using money to silence well-founded popular resistance to high-risk projects with potentially negative impacts—like the PHAM—has led to the proliferation of “sacrifice zones” throughout the country, with serious detriments to the population, including severe health impacts, loss of livelihood, and the loss of healthy and sustainable economies.

(C) Effective Citizen Participation

- There was active citizen participation during the project’s environmental assessment process. During its initial processing, public citizens (independently as well as through the Coordinating Committee) submitted 6,000 comments about the project. This first project was withdrawn in May 2008, before it was reviewed by the assessment committee, as its rejection was anticipated. Later that same month, the Company once again began the process to obtain environmental approval of the project. An even greater number of citizens participated in this second process, in which 8,000 comments about the project were received. None of the citizen observations were met with a proper response. In response to each observation, the Company copied and pasted some paragraph from the Environmental Impact Study (EIS) that did not necessarily respond to the observation or address the concerns. The same is true for the observations made by many of the public utilities. The addendums (additional information to the EIS produced by the Company in response to requests from public utilities and public comments) merely offered assertions without any evidence to support them, or presented mathematical simulations that were ambiguous in scope. Nevertheless, the project was approved.
- This situation has been repeated in innumerable conflicts throughout Chile, where organized citizens participate in environmental assessment processes without any guarantees. A citizen participation process is established, where the companies and authorities inform the public of the project and invite its participation. However, there are no guarantees with respect to the information disclosed (which is prepared by the infrastructure project proponents, without a public baseline with which to counteract it), or with respect to the citizen participation process. In spite of the public mistrust and skepticism about the EIS process, organized communities generally participate and present observations, since it is the only way to continue—in the event that the project is granted an environmental license—with administrative and/or judicial proceedings if the observations are not taken into account. However, citizen observations are non-binding and rarely have an effect on the design and evaluation of the project. This has led to innumerable conflicts throughout the country, and in the increased litigation of environmental assessment processes, since resorting to the courts is the only alternative that ultimately remains.⁴⁵

⁴⁵ A document with additional background on the matter, prepared in 2015 and 2016 by the Trade Union Citizen Parliamentary Committee (CSCP) for the Reform of the Environmental Impact Assessment System is available at: <http://www.chilesustentable.net/propuestas-comision-sindical-ciudadana-parlamentaria-para-la-reforma-al-sistema-de-evaluacion-de-impacto-ambiental/>

- The project was designed without a comprehensive assessment of its impacts, leaving other users of the basin out of the discussion at all times.⁴⁶ The PHAM only recognizes a limited zone as the project's area of influence. It fails to consider the impacts downstream of the return point, where there are irrigation channel and potable water intakes, sand and gravel extraction areas, and road and railroad infrastructure that connects Santiago to southern Chile. It also fails to consider the impact of the PHAM on the numerous environmental services that the basin offers the entire Metropolitan Region of Chile.
- The associations of channel users [*canalistas*],⁴⁷ and the river's users in general, were not taken into account, consulted, or considered during the design of the PHAM. Throughout the processing of the project, the Company refused to engage in dialogue with the other users of the basin. In the case of the channel users, the conflict ended up in the courts, where it was only through financial compensation that the Company was able to reach an agreement and silence the opposition. This has been the tone of the PHAM. Well-founded opposition and apprehensions about the real and imminent risks of the PHAM have been silenced with financial compensation.

(D) Efficient Use of Resources and Pollution Prevention

- The PHAM will capture the main tributaries that feed the Maipo River, and diverted through tunnels totaling 67 km in length. The project will divert the water from three rivers, returning it to the main river 100 km downstream. There is considerable uncertainty with respect to the diminished flow rates of the tributaries as a result of these diversions. According to independent calculations, with the implementation of the PHAM, the reduction in the flow rates of the tributaries of the Maipo could be much more significant than projected by the Company—60 to 90% of their natural flow rates—and this would be in the context of the desertification process and natural decline in the flow rates of the rivers already affecting Chile's northern and central regions. The diversions would reduce those flow rates to more than 100 km of the river valleys that make up the Maipo River Basin. This is absolutely inefficient, especially when we consider that the energy to be produced is not what the project promised publicly and at the time of its environmental assessment.
- The Company stated that the PHAM would have an annual output of 2,500 GWh. However, this figure was obtained using records from 60 years ago that underestimate the flow rates of the rivers. Calculations based on official statistics show that the project would only have an annual output of 1.790 GWh. The Company recently confirmed that less electricity would be generated than indicated previously.⁴⁸

⁴⁶ The use of water other than for the Company's hydroelectrical purposes includes, for instance, irrigation through the use of irrigation channels (hence the name "channel users" [*canalistas*]), human and animal consumption, and ecosystemic functions and uses, among others.

⁴⁷ There are a number of different water users' organizations in Chile. They include water surveillance boards, associations of channel users, and water communities. The purpose of the water users' organizations is to distribute the water from a main water source among rights-holders, as well as to build, use, conserve, and improve water intake infrastructure, aqueducts, and other structures needed for water use. In the case of natural waterways, users may be organized as surveillance boards, while associations of channel users are established for artificial waterways. They are usually organized on the principal channels of irrigation systems outside property lines, whose source is the river.

⁴⁸ See Chilevisión report: http://www.chilevision.cl/en_la_mira/capitulo-completo/temporada-2014/aguas-turbulentas-en-el-cajon-del-maipo-25-de-junio/2014-06-26/001913.html

- The Company failed to perform a hydrogeological study to assess the impact of the tunnel and the effect it would have on underground aquifers and water flows.
- The PHAM has an impact on high altitude wetlands and glaciers. The explosions detonated for its construction are contributing to the degradation of glaciers and snow caps. This, in turn, has an impact on a vulnerable zone that is experiencing the effects of desertification and climate change.
- During the construction and operation of the PHAM, there has been potential and actual soil, water, and air contamination with heavy metals and minerals found in the rocks that are pulverized and removed in the tunnel construction. This has widespread effects on the ecosystem and the people who depend on it. Legal and administrative actions have been brought because of the evident contamination of the water with heavy metals.
- The Company acknowledges that the project's operation directly affects the water rights of the current users in terms of quantity, quality, and availability. For this reason, several associations of irrigators, farmers, and channel users opposed the project from the outset, and only withdrew their actions pursuant to a financial agreement that does not address the environmental impacts or the impacts on all of the users of the basin's water.
- Finally, based on the analysis of available information about other renewable energy projects, it is evident that the PHAM is also inefficient with respect to the use of natural resources and ecosystemic services in general.

(E) Health and Safety of the Community

- As stated above, the project jeopardizes the potable water supply of the population of Santiago.
- With respect to emergency preparedness, one problematic point concerns the unexpected release of water. Although it was finally taken into account as a risk during the environmental assessment, the proposed mitigation measures (construction of a secondary canal) have not been evaluated by any competent body in Chile.
- It has been documented during the construction phase of the project that explosives are being transported and stored in an irregular manner and at all hours (for instance, the pickup trucks that transport explosives are on the roads at the same time the children get out of school). The presence of heavy metals in the reservoirs has also not been properly evaluated or treated.
- The situation is critical in the towns most affected by the construction of the PHAM (El Alfalfal and Los Maitenes, see Annexes 02 and 04). In the case of El Alfalfal, the community is currently confined inside four walls, since the environmental license required the PHAM to close off the perimeter surrounding the town for purposes of noise and pollution abatement. However, the measure has not diminished the noise or the pollution. The residents allege that the Company has not kept its promises, and the town has become divided between those who are for the project and those who are against it. The PHAM has additionally stated that

the residents who receive financial benefits cannot oppose the project.⁴⁹

(F) Conservation of Biodiversity and Sustainable Management of Natural Resources

- The upper Maipo River Basin is a unique high-altitude ecosystem that has been declared a Zone of Touristic Interest, a Hunting-Free Zone, and a Zone of Scientific Interest (protected from mining). Four of the Metropolitan Region's Priority Biodiversity Conservation Sites are located in this territory, which together cover a total of 462,253 hectares.⁵⁰ Therefore, it is incomprehensible and inconsistent for the same authority that enacted these instruments—which seek to protect the basin—to have authorized the PHAM, which completely disfigures it in environmental and social terms, jeopardizing the very interests that the public policy instruments seek to protect.
- During the environmental assessment of the PHAM, the Company failed to consider the habitat of species such as the torrent duck (*Merganetta armata*) in the area of the Volcán River and the condor (*Vulgar gryphus*) on the Colorado River.
- The cutting of native trees for the construction of the PHAM was not properly assessed.
- The degradation of the Maipo River affects one of the few essential recreation and “green lung” areas of the Metropolitan Region. As stated previously, this area is visited by 3.6 million people every year. The Maipo River Basin was selected as one of 97 priority areas for tourism in Chile.⁵¹ It is a very popular place for rest and recreation, as highlighted in a study by the National Tourism Service (SERNATUR) citing the figures on occupancy rates during holidays (for instance, winter vacations).⁵² At 72.6 percent, the Cajón del Maipo was one of the destinations that had occupancy rates over 70 percent.
- The implementation of the PHAM affects the quality of life not only of the local community but also of the inhabitants of the Metropolitan Region in general. This impact was not assessed or considered.

(G) Adverse Effects on Cultural Heritage

- The effects of the PHAM on the culture, traditional activities, and archaeological and paleontological heritage were not assessed. There are several protected heritage zones (such as historic buildings and the Valle de las Arenas) where the project's impact was not evaluated.

⁴⁹ See: report aired by the program *24 Horas*, reporting that residents fear talking to the television program's investigators about the PHAM: <http://www.24horas.cl/noticiarios/reportajes24/reportajes-24-el-muro-de-los-lamentos-que-divide-a-el-alfafal-2151883>

⁵⁰ Source: Plan de Acción Santiago Andino (2005-2015), available at: www.sinia.cl/1292/articles-37027_PDA_stgoandino.pdf

⁵¹ Source: <http://www.sernatur.cl/wp-content/uploads/2015/11/20150909-Informe-Focalizaci%C3%B3n-Territorial-Tur%C3%ADstica.pdf> (p. 31).

⁵² Source: Servicio Nacional de Turismo, Tasa de Ocupabilidad en Establecimientos de Alojamiento Turístico, 2016. Available at: <http://www.sernatur.cl/tasa-ocupabilidad/>

- There are sites of archaeological and paleontological interest that have been found in the project's area of influence and, according to experts, there are even more such sites that remain to be discovered. Many of them have not been included in the impact assessments and are now being dynamited and destroyed without the appropriate research and preservation. One example is the Camino del Inca—declared a world heritage site—which is being affected by PHAM construction works in the area of the Yeso River toward Laguna Negra.
- The PHAM will affect the traditional activities of mule drivers [*arrieros*].⁵³
- Tourism and outdoor sport and recreation activities, which are the engine of the local economy, will also be affected by this mega-intervention in a river basin that is essential to the Metropolitan Region.
- The town of El Alfalfal is also affected in this regard, since it has been deprived of community spaces (including its soccer field, which was moved to another town), as well as pastures and areas used for honey collection.

Analysis of Some Policy Directives Established for this Relevant Operational Policy

With respect to the directives established in OP-703, the IDB is in violation of policy directive **A. Environmental Mainstreaming**. Below we discuss several points related to this directive.

A.2. Supporting environmental and natural resources management operations

- The PHAM is reportedly accelerating the desertification of the central zone of Chile and harming ecosystems of significant worldwide relevance. It is a project that directly affects the ecological services of the basin and its capacity to adapt to climate change. The reports of the IDB indicate that the basin's water resources would only diminish 3-8% s between 2010 and 2070.⁵⁴ Nevertheless, in just the past 10 consecutive years of drought, the rivers making up the Maipo River Basin have decreased by 30 percent.⁵⁵
- The PHAM's construction operations have evidenced the significant shortcomings of Chilean environmental laws and regulations, demonstrating the lack of oversight capacity of the authorities of the Superintendency of the Environment in light of the 14 complaints filed against the project.
- The PHAM in no way restores environmental quality, it is not renewable, and it exacerbates the desertification process in Chile. It does not represent clean and efficient energy use. Nor does it contribute to the sustainable management of natural land and marine resources, as it degrades the hydrological cycle of the basin. Finally, it fails to protect the biodiversity and fragile ecosystem of the Mediterranean mountain climate that is in evident decline due to human impact and climate change. Even more seriously, the tunnels could affect the groundwater under the El Morado Natural Monument, the Quillayal Sanctuary, and San Francisco de Lagunillas.

⁵³ The mule drivers, who are generally men, take herds or droves of animals from one property to another, from one town to another, or even from one country to another. In the central zone of Chile, and in Cajón del Maipo, there are still people engaged in this activity as a means of economic—as well as cultural—subsistence.

⁵⁴ Source: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=37958020>

⁵⁵ See: Annex 08. River Basin Management and Climate Change. The case of the Maipo. (CHS-Stern, 2008).

- The PHAM does not improve the quality of life of urban areas near its construction, nor does it preserve culturally important sites like the town of El Alfalfal, Valle de las Arenas, or the traditions of the mule drivers, who depend on the high-altitude fertile plains where the project is being implemented (for instance, Valle de la Engorda).

A.3. Mainstreaming environment across sectors

- The IDB cannot improve the sustainability of a project that failed to include this variable in its design. There are no substantive modifications that could make the PHAM a sustainable project, given the way it was designed, and due to its scale and the degree of intervention in the rivers and the basin that it entails.

A.4. Supporting regional initiatives and international agreements

- Chile's entry into the Organization for Economic Cooperation and Development (OECD) necessitated the creation of a new institutional framework consisting of the Ministry of the Environment (MMA), the Superintendency of the Environment (SMA), the Environmental Assessment Service (SEA) and the Environmental Courts. The law stipulating these changes was enacted in January 2010. Hence, the PHAM was evaluated under the old environmental framework in Chile, which had standards that were even more inadequate for the evaluation of this type of project. The PHAM has made clear that both the old and new environmental frameworks fail to provide a satisfactory response in terms of their practices *vis-à-vis* a project of this kind. Today, the new environmental framework is also being called into question, and the government has had to convene a Presidential Advisory Commission to identify the main problems and propose reforms.⁵⁶
- The PHAM fails to respect the following international agreements: The Convention on Biological Diversity, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (RAMSAR), the United Nations Convention to Combat Desertification, and the United Nations Framework Convention on Climate Change.

A.5. Tracking environmental sustainability indicators

- The PHAM illustrates the poor response of the current institutional environmental framework, the oversight problems, and even the possible existence of false water quality analyses by the competent bodies, such as the Superintendency of the Environment (SMA).
- To expand upon the above point, we note that in February 2016 the Coordinating Committee filed a petition for the protection of constitutional rights with the San Miguel Court of Appeals (Santiago, Metropolitan Region) against Alto Maipo S.A., the company that owns the PHAM. This petition was based on the report of Dr. Andrei Tchernitchin, President of the

⁵⁶The limitations of the Chilean EIAS has been evidenced by academics, civil society organizations, public servants, and government authorities. Recently, the government convened a Presidential Advisory Commission to study the EIAS and propose reforms. Because it did not manage to assemble civil society organizations or the trade unions associated with the environmental framework—who did not trust the government authority—a parallel commission was created called the Trade Union Citizen Parliamentary Committee EIAS. More information is available at: <http://portal.mma.gob.cl/comision-asesora-presidencial-entrega-25-propuestas-para-reformar-el-sistema-de-evaluacion-de-impacto-ambiental/>; <http://www.chilesustentable.net/propuestas-comision-sindical-ciudadana-parlamentaria-para-la-reforma-al-sistema-de-evaluacion-de-impacto-ambiental/>

Environmental Department at the Medical Association of Chile, on the water quality of some sectors of the Maipo River Basin. This report demonstrated that the concentration of heavy metals exceeded recommended water quality standards in areas where the water is used for human consumption (especially for drinking). The analyses showed high levels of manganese, aluminum, and iron. The Court of Appeals ruled in favor of our arguments, ordering the SMA to conduct specific monitoring in order to determine whether the construction of the PHAM is the cause of that contamination. This petition was ultimately dismissed by the Court of Appeals of San Miguel on January 10, 2017, given that in its report, the environmental authority—the Superintendency of the Environment (SMA)—affirmed that the contamination was an isolated episode, and that subsequent water quality analyses did not yield evidence of contamination above the natural base level of the Maipo River. Disagreeing with this decision, and as allowed under Chilean law, the Coordinating Committee will take the case to the Environmental Court of Santiago. In the case of the PHAM, the SMA has consistently failed to exercise the oversight role it is supposed to play. Fourteen complaints concerning the PHAM are pending before the SMA, but there has been no response with regard to the matter. There has also been no information on whether the SMA has performed any oversight, or whether it has initiated any sanctions proceedings.

- New background information has come to light during the processing of these appeals, some of which is related to the deliberate submission of erroneous information by the SMA to the courts⁵⁷ and indicates that the authority has only given the appearance of conducting the monitoring ordered by the Court of Appeals of San Miguel. If true, this conduct is punishable under the Chilean Criminal Code, specifically in relation to the misrepresentation of the background information and its subsequent presentation to the courts.

A.6. Assessing environmental risk and opportunity

- This directive pays special attention to the risks, including the sector risks, of policy, governance, as well as vulnerability to natural risks and climate change. As noted earlier, the project is complex from the point of view of democratic governance if we consider the suspicions it has created with respect to influence peddling, the potential existence of corruption and irregularities, the unrest that it creates locally (which has been expressed in tensions within the communities) and nationally (massive opposition to the project), and with respect to the public mistrust of institutions and authorities, which in view of the background information that has been made public (for instance, the existence of a private contract between Aguas Andinas and the PHAM that jeopardizes the potable water of the Metropolitan Region) see this trust even further diminished (see attached Memorandum).
- According to Jorge Hernández, president of the Inter-Company Trade Union of Workers in Construction, Industrial Assembly, and Allied Sectors [*Sindicato Interempresa Nacional de Trabajadores de la Construcción, Montaje Industrial y Afines*] (SINTEC),⁵⁸ one of the main problems that the workers have had with the PHAM, through the two companies subcontracted for its construction (Hochtief and Strabag), concern anti-union practices and

⁵⁷ See: <http://www.radiovillafrancia.cl/reportaje-los-falsos-analisis-con-los-que-la-sma-desmintio-las-denuncias-por-contaminacion-del-proyecto-alto-maipo#sthash.ni8hOhtp.dpbs>

⁵⁸ To view the complete testimony of Jorge Hernández, see Annex 04. Videos and Testimony on Social Impacts of the PHAM and Labor Conditions.

working conditions. Recently, SINTEC workers were on strike against Hochtief for more than 30 days. The strike arose in the context of a negotiation on wage cuts, living conditions in the camp, and worker safety, especially in the case of the mining tunnel, which in SINTEC's opinion does not meet basic safety standards.

- The PHAM has an impact on the ongoing desertification process in the central zone of Chile that is the result of, among other things, climate change. The project increases the risk of irrigation and drinking water shortages for the city of Santiago.
- In the construction process alone, there is already evidence that the water has been contaminated with minerals and heavy metals, and legal and administrative actions have already been filed with respect to the matter.
- With respect to emergency preparedness, one problematic point concerns the unexpected release of water. Although it was finally taken into account as a risk during the environmental assessment, the proposed mitigation measures (construction of a secondary canal) have not been evaluated by any competent body in Chile.

A.7. Corporate environmental responsibility (CER)

- The CER actions with respect to water management have not been observed. There are reports that the water has been contaminated, making the environment unsafe for the community and the workers.
- In 2015, there were at least two work stoppages that affected the construction of the PHAM. The reasons were related to what the workers described as “*inhumane*” working conditions. One of the stoppages mobilized more than 800 workers who had been hired for mining work in the districts of Las Lajas and El Alfalfal, who claimed that their minimum working conditions and rights were not being met. They also alleged substandard hygiene, food, and safety conditions, as well as a total lack of oversight.⁵⁹

In late November 2016, the workers from one of the PHAM unions went on strike for more than 30 days, demanding better wages and safety conditions. The workers' demands concerned the ineffectiveness of safety gear and clothing, overcrowding in the camps, and the lack of protection in the tunnel works. According to national media reports, the Company cut off the water and electricity in the camps in retaliation, leaving the workers without those essential services.⁶⁰ The workers also reported the presence of 60 armed guards and increased unrest and insecurity in the area.⁶¹ According to Jorge Hernández, president of the Inter-Company Trade Union of Workers in Construction, Industrial Assembly, and Allied Sectors (SINTEC),⁶² one of the main problems the workers have had with the PHAM, through the two building subcontractors (Hochtief and Strabag), concern anti-union

⁵⁹ Source: <http://era.www.cambio21.cl/cambio21/site/artic/20150714/pags/20150714162426.html>

⁶⁰ Source: <http://www.biobiochile.cl/noticias/opinion/entrevistas/2016/11/23/sindicato-de-proyecto-alto-maipo-y-huelga-de-mas-de-20-dias-no-hay-una-voluntad-de-negociar.shtml>

⁶¹ Source: <http://www.eldesconcerto.cl/pais-desconcertado/2016/11/23/trabajadores-de-alto-maipo-en-huelga-denuncian-presencia-de-paramilitares-para-bajar-su-movilizacion/>

⁶² To view the complete testimony of Jorge Hernández, see Annex 04. Videos and Testimony on Social Impacts of the PHAM and Labor Conditions.

practices and working conditions.

- It bears noting that the PHAM has been cataloged by the National Institute of Human Rights as one of the 100 conflicts reportedly violating human rights in Chile.⁶³
- There have been a number of mobilizations by opponents of the project, even including PHAM workers. On September 15, 2016, the community of Los Maitenes in the Colorado River Valley closed the road, blocking the contractors' access to the project.

With respect to policy directive **B. Environmental Safeguards: Management of Environmental Risks and Impacts**, it bears noting that in the event that the IDB had truly adopted a precautionary approach, the PHAM would not have obtained financing. This was possible, in part, because the IDB did not take part in the initial evaluation stage of the project, when it was classified as risky by public entities and even by Aguas Andinas, the sanitation company responsible for Santiago's potable water, which only changed its mind about the project when it entered into a financial arrangement with the Company.

Below we examine the different points of this policy, and highlight some elements we consider crucial and illustrative of how the IDB is failing to comply with its own policies and directives:

B.1. Bank Policies

- The IDB made the decision to invest and confirmed its involvement immediately after the Company presented its studies, which shows that the Bank did not take sufficient time to properly evaluate and study the information submitted. The IDB failed to conduct a real assessment of the risks involved, or the impacts of the PHAM, meeting only the minimum formal requirements. This was confirmed at the meetings that social organizations held with the IDB and the other financial entities in 2013, when their executives were already talking about the PHAM as a done deal. All of the problems that the PHAM has had on different fronts demonstrate the absurdly poor quality of the project assessment carried out by the Company and the banks.

B.2. National laws and regulations

- These facts confirm that the PHAM does not comply with national laws and regulations. It also violates the international Convention on Biological Diversity, as it interferes directly with the hydrological system that supports four Priority Biodiversity Conservation Sites, three Nature Sanctuaries, and a National Monument, all within the National System of Protected Areas.

B.3. Screening and classification

⁶³ See: p. 148 in the following document of the National Institute of Human Rights:

<http://mapaconflictos.indh.cl/assets/pdf/libro-web-descargable.pdf>; and the following article:

<http://www.latercera.com/noticia/tendencias/2016/09/659-696310-9-instituto-de-ddhh-identifica-mas-de-100-conflictos-ambientales-en-el-pais.shtml>

- We must underscore that the assessment conducted by the IDB only met a formal checklist of requirements, since, as we have noted in this document, the investment decision was made immediately after the Company submitted its reports; therefore, the cumulative impacts on the entire basin were not considered.

B.5. Environmental assessment requirements

- On this point, we must take note of the problems related to citizen participation. No timely and appropriate consultation was conducted, let alone a real process of dissemination at the time the project was going to be built. In Chile, citizen participation is merely informative, and is not binding on the decisions imposed by the Company or the government. An example of the problems with the environmental assessment is the study “Summary Report Gap No. 7 Analysis of Alternatives,”⁶⁴ which failed to include a “no project” alternative. That report states that the PHAM “*Contributes to the optimal use of the water resources of the Maipo River Basin, given that in the ‘no project’ scenario it is unused potential energy.*” This type of assertion illustrates the ignorance and absence of systemic analysis that the assessment of the PHAM has represented, by stating that water that is left to run in the rivers rather than used for energy or commercial objectives is “lost.”
- This would not have been easily financed, had the economic analyses of alternatives to the project been performed, since its cost far exceeds that of other types of power generation in Chile (see Annex 01). It is also impossible to find the initial cost/benefit analyses.
- Andrónico Luksic,⁶⁵ the owner of Antofagasta Minerals, even stated that this project has been extremely costly to the reputation of his family, and that it is also not advisable given current energy prices. He stated that if he had to make the decision again today, he would not participate in the investment “*under any circumstances.*”
- As mentioned earlier, the project’s indirect and cumulative impacts on the entire basin have not been evaluated; rather, assessments have only been done with respect to the area of “direct influence” determined by the Company. There was also no consideration of the desertification process induced by the climate change underway in Cajón del Maipo, or of how the PHAM would affect the vulnerability of water resources.

B.6. Consultations

- The necessary consultations have not been held. There was only one meeting in 2013 in which just part of the town’s inhabitants were heard. This consultation was held at the construction phase and not during the project assessment. The opinions expressed at that meeting were not systematized or disseminated, as it was held on September 5, 2013.

⁶⁴ See:

http://www.altomaipo.com/Temas%20de%20interes/Analisis%20de%20alternativas/Conclusiones/Documents/analisis_de_alternativas.pdf

⁶⁵ Source: <http://www.latercera.com/noticia/negocios/2016/09/655-696231-9-sube-la-tension-entre-aes-gener-y-el-grupo-luksic-por-alto-maipo.shtml>

B.7. Supervision and compliance

- The community has not been informed of supervision and compliance processes, if any have been carried out.

B.8. Transboundary impacts

- In spite of the fact that the Maipo River Basin shares territory with Argentina, none of the public reports state whether Argentina has been notified of this project.

B.9. Natural habitats and cultural sites

- The PHAM will irreversibly degrade the totality of the hydrological system of the Maipo River Basin, and with it one of the 5 priority “hotspots” for the conservation of global biodiversity.
- The mitigation measures were established based on a deficient study, approved with irregularities, which failed to assess relevant environmental variables including the presence of the torrent duck (*Merganetta armata*) in the estuaries formed by the Volcán River, the effect of blasting on nearby glaciers, the impact of tunnel construction on the contamination of water and groundwater, and climate change.
- The culture of mule drivers and peasant farming life in the central area remains very much alive and goes hand in hand with tourist activities in the valley. The PHAM degrades the high-altitude fertile plains where the mule drivers take animals to graze, and the project does not take responsibility for its impacts on these variables.

B.10. Hazardous materials

- Explosives are being transported and stored in an irregular manner and at all hours. For instance, the pickup trucks that transport explosives are on the roads at the same time the children get out of school. The disposal of heavy metals in reservoirs has also not been properly handled, as the reservoirs do not have waterproof linings.

B.11. Pollution prevention and abatement

- In 2016, the Medical Association of the Metropolitan Region made public the results of a study that showed high concentrations of toxic elements in the waters of the Maipo River Basin. The samples taken by the Medical Association and analyzed in the laboratories of the National Environmental (CENMA) were from water extracted from sources near the PHAM’s tunnel excavation sites. The report revealed that the water samples had concentrations of different metals and metalloids affecting potable water and irrigation water that exceeded the Chilean standard as well as the recommendations of the World Health Organization.⁶⁶ Given this situation, 500 inhabitants of Cajón del Maipo, together with the Coordinating Committee,

⁶⁶ Iron was 5,337% higher than the Chilean standard for potable water and triple the permissible levels for irrigation. The manganese levels exceeded potable water and irrigation water standards by 189 and 145%, respectively. Molybdenum levels were 20% over the irrigation water standards, and arsenic was 5% higher than permissible levels

in for potable water in Chile. Lead levels exceeded the WHO's recommended levels for potable water by 170%.

filed an appeal for protection against the Company and against the Environmental Assessment Service for failing to monitor water quality—a condition that the Service imposed upon granting the project’s environmental license. Recently, in October 2016, the Aguas Andinas sanitation company carried out an Environmental Impact Study for a project of its own, which once again revealed that various metals and minerals in the water exceeded permissible levels under existing Chilean law.⁶⁷

- We urge the MICI to conduct *in situ* monitoring of the PHAM’s contamination of the water that supplies the capital of Chile. An independent delegation is urgently needed to clarify the issue and take the measures necessary to resolve this serious situation. Quite rightly, this is one of the most sensitive topics for the population of Cajón del Maipo and Santiago.

B.12. Project under construction

- According to this directive, *“The Bank will finance operations already under construction, only if the borrower can demonstrate that the operation complies with all relevant provisions of this Policy. If, as part of the Bank’s analysis/due diligence of a proposed operation that is already under construction, noncompliances with relevant safeguard Directives of this Policy are identified, then an action plan must be submitted to the Bank prior to Board approval of the operation. The action plan shall define the actions and associated schedule for the timely resolution of such noncompliances and include sufficient funding for its implementation.”*
- To date, there has been no known action plan. Given the background information already presented, that should have been done.

B.13. Noninvestment lending and flexible lending instruments

- This directive states: *“Taking into account that the Bank may finance loans with instruments that differ from traditional investment loans, for which ex-ante impact classification may not be feasible, these lending instruments may require alternative environmental assessment and management tools to determine their level of safeguard risks and operational requirements, as described in the policy guidelines. (...) The appropriate sequence of actions and conditions to ensure environmental sustainability will be reflected in the corresponding action plan, as required.”*
- This simply did not occur in the case of the PHAM, since the IDB agreed to contribute to the project’s financing when it was already at the construction stage.
- It is also not known that the IDB has implemented an Environmental Management System (EMS) for the PHAM, designed according to the particular needs of the operation in Cajón del Maipo—a plan that additionally requires that meetings be held with the affected communities, for instance to: a) Identify the significant environmental aspects mentioned earlier in this document relative to the serious intervention in the Maipo River Basin and its

Cadmium levels are at the maximum allowable limit according to WHO recommendations. Source: <http://opinion.cooperativa.cl/opinion/medio-ambiente/alto-maipo-y-la-contaminacion-del-agua-que-abastece-santiago/2016-03-20/064424.html>

⁶⁷ Source: <http://www.biobiochile.cl/noticias/nacional/chile/2016/10/05/informes-de-aguas-andinas-detectan-contaminacion-en-el-rio-maipo.shtml>

Tributaries and the intensification of the drought, desertification, and climate change process; b) Set goals to reduce environmental impacts; and c) Measure the progress of the reduction and remediation of environmental impacts according to the stated objectives.

OP-704 DISASTER RISK MANAGEMENT POLICY⁶⁸

From the beginning of its construction, this project has entailed a multitude of risks at the local and regional levels. This policy includes directive **A-2. Risk and project viability**, which is relevant in the case of the PHAM.

The PHAM was financed by the IDB even though it was classified as a high-risk (“A”) project.

Cajón del Maipo is an area that has been exploited extensively, from before Chile’s independence to this day. The activities that have had the greatest effect on ecosystems are mining, cattle ranching, firewood and water extraction, agriculture, energy, and residential occupation. This combination of productive activities has left the land in Cajón del Maipo overused and susceptible in view of extreme climate phenomena, the elevation of the zero isotherm, and new interventions. The seismic and volcanic nature of this territory must also be considered. There have been natural disasters associated with seismic activity, rising floodwaters, and landslides resulting in the loss of human life. In fact, two people died in April 2016 due to high-temperature rains that cut off potable water supplies to Santiago for a few days (this also occurred in January 2013).

The PHAM causes materials to collect in the riverbeds (especially in the El Alfalfal sector). When floodwaters rise, these materials are swept along the waterways, contributing to cloudiness and increased sediment in the water. This has forced Aguas Andinas to cut the potable water supply to Santiago when it is unable to treat the excess sediment in the water.

It is very risky to modify water flows and reservoir deposits in a river erosion, infiltration, and flooding zone. These zones are unstable and have high rates of chemical reactions, and the hydrological flows are near or upstream from populated areas, which generally means that they are of high environmental and social value.

No specific studies were conducted with regard to this type of risk. There was only a “Study of Cumulative Effects,” which did not include the risk of aggravating natural phenomena through the construction and operation of the PHAM. No mitigation measures have been included to address floods and other threats.

The PHAM disregards the precautionary principle, which is an international standard, as well as the preventive principle, the foundation of our country’s Environmental Framework Law. The seismic and volcanic hazards in the zone were not considered, which means that the project is not being built to withstand a magnitude 8 earthquake like the one that struck in 2010. No one is able to assert or

⁶⁸ Source: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39430562>

guarantee technically or scientifically that the PHAM does not pose an enormous risk to the future supply of water to the Metropolitan Region, as well as to other environmental and residential services provided by the basin, and to the diverse tourist activities that support the economy of Cajón del Maipo.

In this regard, from the beginning of its construction, the PHAM has posed a multitude of risks at the local and regional levels. Events at the initial construction stage confirm the threat level that it represents. Building tunnels without serious studies addressing the geological features of the zone—a seismic zone—increases the levels of socio-environmental vulnerability to threats, and allow natural phenomena to be exacerbated by climate change.

Independent audits, for instance with respect to water pollution, have already identified risks.

OP-708: PUBLIC UTILITIES POLICY⁶⁹

The PHAM is a mega hydroelectric project that affects the entire hydrological system of the upper Maipo River Basin. The Maipo River is the main water source for the Metropolitan Region, supplying around 70 percent of its current potable water demands, and nearly 90 percent of its irrigation needs.⁷⁰

The Company has maintained that the flow of the Maipo River will be reduced by only 15 percent as a result of the project. However, the decrease will be much more significant if we consider that this figure was obtained using measurements from 60 years ago when the flow rates were much higher. The figure that the Company uses also fails to consider that Chile has undergone increasing drought over the past eight consecutive years, which has caused a 37 percent reduction in the flow of the Maipo River, as reported by the National Water Bureau in 2014. Taking all of this into account, and according to independent calculations, the implementation of the PHAM could lead to a reduction in the flow rates of the tributaries of the Maipo that is much more significant than projected by the Company—between 60 to 90% of their natural flow rates.

Due to the Company's underestimation of the flow rates, the PHAM fails to respect the minimum ecological flow rates required to sustain life in the affected river ecosystems. The previous water law established 10 percent of the average annual flow of a waterway as the minimum ecological flow. The current law (2014) establishes that it should be 20 percent. In most of the rivers that will be affected, the PHAM fails to meet even 10 percent, as evidenced in the table below,⁷¹ which compares the natural flow of the rivers to the flow that will remain if the PHAM is implemented:

⁶⁹ Source: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39430662>

⁷⁰ Source: Annex 08. River Basin Management and Climate Change. The case of the Maipo.

⁷¹ Point 1 of the EIS of the PHAM, "Project Description," and point 5, "Baseline." Supplemented in Addendums 1 & 2.

Tributaries	Average flow without project (m3/s)	Ecological flow with project (m3/s)
Río Yeso	15	0.46
El Morado	3.7	0.17
Las Placas	1	0.1
El Volcán	8	0.3
Colina	6	0.37
La Engorda	2.1	0.15
Aucayes	5	0
Colorado River	30	0.66

In an area that is already in the process of desertification, a project like the PHAM poses the threat of unexpected negative effects on underground water deposits, affecting springs and aquifers. The tunnels are designed to have an incline of 2.14 meters per kilometer, which means that the water will not travel under pressure. Therefore, the tunnels will redirect and absorb all of the underground water conduits with which they make contact, causing the exhaustion and diversion of natural surface springs and similar water sources in the project zone. This is particularly serious if we consider the fact that many towns surrounding the Maipo River depend on deep wells for their potable water. This is because the concession held by the Aguas Andinas sanitation company in the town of San José de Maipo only covers 60 percent of the population. The remaining 40 percent rely on wells, aquifers, and rivers, using systems installed by the residents and communities. These wells and aquifers, and the flow rates of the rivers, could be affected by the impacts of the tunnels on groundwater.

In mid-April 2016, there was a storm in the Metropolitan Region that resulted in floods and three interruptions in the supply of potable water to the city. Four million people were affected. The Superintendency of Sanitation Services opened an investigation to determine responsibilities following the outage. In the Metropolitan Region, factors being investigated include the role of the PHAM in these service outages, since they were caused by the uncontrollably high turbidity of the water.⁷² One aspect of the project’s history raises suspicion of the PHAM’s responsibility for these events: the Aguas Andinas sanitation company opposed the PHAM for years, arguing—rightfully so—that it would jeopardize the potable water supply because it involved large-scale construction projects in the basin that could have these types of consequences. Its position changed after it entered into a contract with the Company (see Annex 12, section “Aguas Andinas and the risk to Santiago’s potable water supply”), which it was forced to disclose to the public pursuant to a 2013 judgment of the Santiago Court of Appeals.⁷³

Also in 2016, made public the results of a study that showed high concentrations of toxic elements in the waters of the Maipo River Basin. The samples taken by the Medical Association and

⁷² Source: <http://www.elmostrador.cl/noticias/pais/2016/04/26/todas-las-dudas-que-caen-sobre-alto-maipo-el-proyecto-que-complica-a-andronico-luksic/>

⁷³ Sources: <http://acuerdos.cl/noticias/corte-obliga-a-revelar-contrato-entre-aguas-andinas-y-aes-gener-por-proyecto-alto-maipo/>; <http://www.elmostrador.cl/noticias/pais/2013/02/18/el-acuerdo-secreto-entre-aguas-andinas-y-aes-gener-que-saldra-a-la-luz-en-las-proximas-semanas/>

analyzed in the laboratories of the National Environmental (CENMA) were from water extracted from sources near the PHAM's tunnel excavation sites. The report revealed that the water samples had concentrations of different metals and metalloids affecting potable water and irrigation water that exceeded the Chilean standard as well as the recommendations of the World Health Organization.⁷⁴

OP-710 OPERATIONAL POLICY ON INVOLUNTARY RESETTLEMENT⁷⁵

The case of the town of El Alfalfal stands out as an example of the social of the PHAM. The construction of four walls around the perimeter of the town to keep out noise and pollution constitutes a restriction on land use and access to resources that, according to the residents, has not been managed in a regular and transparent fashion.

In El Alfalfal, agreements have been made with the community to resettle some of the residents. This situation was not part of the project's environmental assessment process, and therefore is completely irregular. According to the agreements,⁷⁶ this is because these families are living in conditions of "*allegamiento*" [crowded or shared households],⁷⁷ and because of the residents' long-standing difficulty in formally obtaining title to the lands they inhabit. The underlying problem is that the Company has attempted to address the historic problems of the community's economic and social vulnerability in an irregular manner, because of its inadequate social legitimacy or inclusion, without the participation of the competent authorities that can guarantee the process. On the contrary, the solutions that the Company has offered have been limited to private negotiations with the community.

4. ACTIONS REQUESTED

4.1.- We respectfully request that the MICI accept this complaint, as it meets the established criteria. We have proven our status as persons affected by or interested in the PHAM. That status has already been proven and acknowledged from the time of the project's environmental classification process in Chile (entry into the Environmental Impact Assessment System) by the courts of justice that have heard the complaints and claims filed, by the municipal and regional authorities that have responded to our requests, and, fundamentally, by the social base that constitutes the "No to Alto Maipo" citizen's movement.

⁷⁴ Iron was 5,337% higher than the Chilean standard for potable water and triple the permissible levels for irrigation. The manganese levels exceeded potable water and irrigation water standards by 189 and 145%, respectively. Molybdenum levels were 20% over the irrigation water standards, and arsenic was 5% higher than permissible levels in for potable water in Chile. Lead levels exceeded the WHO's recommended levels for potable water by 170%.

Cadmium levels are at the maximum allowable limit according to WHO recommendations. (Source: <http://opinion.cooperativa.cl/opinion/medio-ambiente/alto-maipo-y-la-contaminacion-del-agua-que-abastece-santiago/2016-03-20/064424.html>).

⁷⁵ Source: <http://www.iadb.org/document.cfm?id=822554>

⁷⁶ See: Annex 06. PHAM-El Alfalfal Advancement Committee Agreement.

⁷⁷ "*Allegamiento*" [crowded or shared households] is a strategy used in households to resolve the housing problem. It consists of sharing a housing unit with another household. Hence, there is one household that is the "receiver" and another household or nucleus whose members are the "*allegados*," strictly speaking.

4.2.- We do not intend to engage in negotiation or mediation through the Consultation Phase of this complaint process. Instead, we request an investigation by the MICI through its Compliance Review Phase in order for there to be an objective assessment of the IDB's financing of Project CH-L1067, "Alto Maipo Hydroelectric Power Project" (PHAM).

Our request is based on the project's failure to comply with the Relevant Operational Policies of the IDB, as well as with Chilean and international laws and regulations. In addition, we ask the MICI to determine whether social and environmental consequences consistent with the objectives, mission, and policies of the IDB can be identified from the financing.

4.3.- We ask the MICI to take all possible measures to expedite the registration and eligibility determination process of this claim. Given that the operations and construction of the PHAM are fully underway and currently having environmental and social impacts in the region, it will be important to be able to begin the Compliance Review Phase as soon as possible.

4.4.- We ask the MICI to find, after examining the information presented and available about the PHAM, that the conclusions and recommendations resulting from the Compliance Review confirm noncompliance with the Relevant Operational Policies of the IDB, and to issue an incontrovertible and conclusive Report to the Board of Executive Directors, including the recommendation to suspend the execution of the project in view of the fact that it is causing serious and irreparable harm in Cajón del Maipo and for millions of Chilean citizens.