



Canadian Lithium Investments in Chile: Extractivism and Conflict



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This project was possible thanks to the support of Fundación Tantí and the sponsorship of 11th Hour Project



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The implementation of energy transition policies for the decarbonization of industrial economies -mainly based on the commitments to reduce CO2 emissions established in the Paris Agreements- is being carried out through a process of technological change where the massification of electromobility, especially in the most polluting countries of the planet, plays a central role. Paradoxically, these measures are based on the development of new “green” technological markets that reproduce old mechanisms of capitalist accumulation. These technologies require large quantities of minerals such as lithium, copper, cobalt, nickel and rare earths, as well as water and energy for productive metabolisms, which has given way to a new commodities boom and the deepening of an extractivist development model of colonial origins. The areas where metals and minerals for the energy transition are mined are mostly located in territories inhabited by rural and Indigenous populations that have been historically marginalized. Mine sites affect ecosystems such as salt flats and Andean wetlands, which lack any real protections despite their importance as a source for community livelihood, biodiversity, and are key areas to regulating the climate.

In its Andean salt flats, Chile has one of the largest proven reserves of lithium in brines and is the world's second largest exporter of this mineral after Australia. The country is also the world's leading exporter of copper, a metal whose use in electric cars can be up to five times greater than in cars running on internal combustion engines. In this context, the extractivist policies implemented by the right-wing government of Sebastián Piñera are echoed in the neocolonialist plans of countries such as Canada, whose explicit interest in mineral exploitation in Chile has materialized in the form of numerous lithium mining projects throughout the territory of the Southern nation. This is how “green extractivism” has become the focus of conflict within indigenous and rural territories that are heavily degraded in socio-ecological terms, threatening communities and land and environmental defenders who are currently facing the impacts of the pandemic as well as climate change that the electric vehicle (EV) market promises to solve.

Therefore, it is of utmost urgency to understand the strong inequalities and injustices hidden behind the green growth imagery promoted by governments and corporations as a supposed way out of the climate crisis and as a mechanism for post-pandemic economic recovery. These projects seriously endanger various territories under siege by companies that, together with national and foreign agencies, seek to accelerate exploration processes and the granting of environmental licenses for lithium extraction. All these take place under very limited conditions for broad and democratic social participation, and in the midst of a strong distrust of state institutions.

Faced with this complex situation, we, the authors of this brief report, in dialogue with local actors who are usually made invisible, seek to explain the responsibility of Canadian investments in the emergence of new socio-environmental conflicts in Chile's salt flats. In this way we hope to contribute to the national and international public debate on possible futures with climate justice as a fundamental criterion for the elaboration and implementation of policies that, beyond a corporate energy transition, allow us to envision a real and just socio-ecological transformation.

Ramón Morales Balcázar and Cristián Flores Fernández, Coordinators

Part 1.

Canada and the colonialist capitalization of the climate crisis for the expansion of extractivism on a global scale

“Climate change is both the challenge of our time and the economic opportunity. The mining sector will play a critical role in supplying the minerals and metals for batteries needed in a clean economy ... This makes good sense for the planet and for the economy.”

Jonathan Wilkinson, Canada's former Minister of Environment and Climate Change

The current climate emergency caused by the intensive use of fossil fuels has the world worried, but particularly those communities that are already suffering from climate calamities. Therefore, the solution proposed by communities in the territories, NGOs and activists accompanying them is that a paradigm shift is needed to move towards a just transition¹. However, the solution that enjoys perhaps the greatest popularity is the one promoted by

the mining industry, neoliberal organizations and governments in the Global North, a solution that proposes a way out of the climate crisis by deepening mining extractivism and externalizing the associated socio-environmental costs. In order to reduce CO2 emissions, these actors propose the extraction of metals and minerals needed by the technologies that will facilitate a low-carbon future. This solution completely disregards the fact that the expansion of

the extractive frontier associated with the “critical minerals” of the transition may actually increase environmental destruction and cause greater threats to biodiversity than those avoided by climate change mitigation actions².

¹. YLMN (2021) On the Frontline of Lithium Mining, YLMN- Lithium <https://yestolifenotomining.org/recent-news/ylnm-litio-comunicado-1/?lang=es>

². Sonter, L.J. et al. (2020). Renewable energy production will exacerbate mining threats to biodiversity. Nature Communications 11, 4174;

Zeng, Y. et al. (2020). Environmental destruction not avoided with the Sustainable Development Goals. Nature Sustainability 3: 795-798.

CANADIAN MINERALS AND METALS PLAN (CMMP): why is Canada pushing lithium mining as a solution out of the climate crisis?

In an attempt to capitalize on the energy transition, Canada has announced the implementation of several policies, at the federal and provincial levels, to promote the extraction and production of minerals and metals domestically. These include the Metals and Minerals Plan (CMMP)³ and the Québec Plan for the Development of Critical and Strategic Minerals (2020-2025) respectively.

In order to enhance the competitiveness of Canada's minerals and metals industry and position the country as a leading mining nation, the Government launched the Canadian Minerals and Metals Plan (CMMP) in 2019. Canada highlights the fact that, unlike other jurisdictions in the Global South, the nation is developing within its borders a sustainable mining industry that respects human rights and the environment, a policy that makes the country a stable destination and a "sustainable metals supplier" for the energy transition⁴. As noted by Canada's Minister of Natural Resources, Seamus O'Regan, during the PDAC (Prospectors & Developers Association of Canada) in 2021: "We are one of the only Western nations that has an abundance of cobalt, graphite, lithium and nickel, all essential to creating the batteries of the future."⁵

The plan, substantially supported by the Canadian mining industry,



Map 1: Lithium Projects in Canada. Based on information from Mining Intelligence Data (2021) Properties - Overview Report

has identified 31 critical minerals in Canada⁵, lithium being one of them. There are currently 160 'active' lithium projects in the country, of which 82 are in the exploration phase and 21 are in the advanced exploration phase. More than half of these projects are located in the province of Québec. According to the government, in the post-covid-19 context, mining and the CMMP will play a significant role in

Canada's economic recovery. Electromobility is the cornerstone on which these plans and the decarbonization of the economy are expected to develop. It should be noted that the plans make no mention of the exacerbated impacts of such extractive expansion on natural areas, fresh waters, and indigenous rights and territories. It also omits the systemic failures of a 'captured' and weakened regulatory regime.

³. The Canadian Minerals and Metals Plan. Update to Action Plan 2020 https://www.minescanada.ca/sites/default/files/pictures/PDF/cmmp_actionplan2020_update_final-en.pdf

⁴. Rumbominero (2021) PDAC 2021: Canada raises critical minerals boost to recover from Covid-19 <https://www.rumbominero.com/peru/noticias/mineria/en-pdac-2021-canada-plantea-impulso-de-minerales-criticos-para-recuperarse-del-covid-19/>

⁵. Donna Slater (2021). "Canada positioning for post-Covid-19 recovery with critical minerals push – O'Regan". *MiningWeekly*. <https://www.miningweekly.com/article/canada-positioning-for-post-covid-19-recovery-with-critical-minerals-push-oregan-2021-03-09>

For example, the government has been accused of working with the Mining Association of Canada⁶ to promote the interests of its members and justify the need to extract more raw materials to meet the demands of the “green economy”, ignoring alternative solutions that do not involve more extraction, such as reducing demand by discouraging individual mobility and by creating incentives for recycling.

In this context, the federal government has announced investments to support the so-called “green transition”, including funds earmarked for mining and lithium technology companies, as well as for the electric car industry in the country. In order to support the development of this sector, the government is offering incentives of up to CAD 5,000⁷ for the purchase of an electric vehicle. It will also require that 100% of all new cars and light trucks sold in Canada by 2035 be zero-emission vehicles.

OTHER PUBLIC POLICIES DRIVING MORE EXTRACTIVISM IN CANADA

These domestic initiatives are reinforced by the 2020 Joint Action Plan on Critical Minerals Collaboration between the United States and Canada⁸, whose main task is to ensure the reliability of the supply chain of critical minerals and the competitiveness of the mining industries of both countries. The prevailing arguments within these spaces are in support of local industry and job creation, national security, and competitiveness against countries such as China.



At the provincial level, the Québec Plan for the Development of Critical and Strategic Minerals 2020-2025 (QPDCSM)⁹ highlights lithium as a strategic mineral for the province’s public policies: green transportation and renewable energies. There are in fact 6 lithium projects under development in Québec.

Similar initiatives can be observed at the city level. Toronto and Montreal have recently launched policies aimed at increasing the installation of electric charging stations. Other local initiatives tend to encourage future users, including lower parking fees for electric car owners in Montreal. According to the mayor of Montreal, the aim of such an initiative is “to show how serious Montreal is about encouraging, supporting and rewarding people who are buying an electric car”¹⁰.



6. IPolitics (2021) O'Regan's relationship with mining lobby is too cozy <https://ipolitics.ca/2021/07/07/oregans-relationship-with-mining-lobby-is-too-cozy>

7. Government of Canada (2021). Zero Emission Vehicles. <https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles>

8. Government of Canada (2020) Canada and U.S. Finalize Joint Action Plan on Critical Minerals Collaboration. <https://www.canada.ca/en/natural-resources-canada/news/2020/01/canada-and-us-finalize-joint-action-plan-on-critical-minerals-collaboration.html>

9. Government of Quebec (2020) Québec Plan for the Development of Critical and Strategic Minerals 2020-2025. https://cdn-contenu.quebec.ca/cdn-contenu/ressources-naturelles/Documents/PL_critical_strategic_minerals.pdf?1604003187

10. CBC News (2021) Toronto needs to speed up its electric vehicle infrastructure to meet targets, critics say <https://www.cbc.ca/news/canada/toronto/electric-vehicle-toronto-1.6147646>

Clearly, the focus so far has been on the need to decarbonize the transportation system, particularly conventional cars for private use, with measures intended to encourage the manufacture and purchase of electric cars and, consequently, the extraction of the lithium needed to manufacture their batteries.

Thus, lithium, electric cars and climate change are words increasingly used side by side, almost interchangeably. The discourse that systematically uses them is intended to explain, time and again, that in order to combat climate change we need to extract more lithium—through mining and refining processes which use exorbitant amounts of water and is associated with the violation of the rights of indigenous and rural peoples in the Global North and South—because this mineral is the basis of electromobility, which is presented a clean alternative that allows people to continue their lifestyles without—apparently—emitting CO₂. That is, a lifestyle that necessarily means an increase in the global consumption of raw materials instead of one that favors their reduction. In this way, the same extractive model that has brought us to the current climate emergency is being sold to us by governments and companies in the mining and automotive sectors as the solution to climate change: replacing one type of extractivism with another; the fossil fuel industry of the past with the so-called green mining of the future.

A question arises in this context: how are these Canadian-driven initiatives reshaping the demand for

lithium from mining ventures both in Canada and in countries of the Global South, such as Chile?

“IF LITHIUM IS THE NEW WHITE GOLD, WATER IS OUR BLUE GOLD.”

This extractivist approach intended to boost the global energy transition has been strongly criticized by many NGOs and by indigenous and non-indigenous communities within Canada, for failing to recognize the social and environmental costs associated with this type of mining and for prioritizing the economic gains of such projects. The Long Point First Indian Nation opposes Sayona Mining’s Tansim lithium project because of the environmental impacts associated with lithium mining, mainly water contamination, and also because

of its profoundly negative effects on their livelihoods, such as hunting and fishing. Indigenous leader Steve Mathias has explained that this project will be located in a “very sensitive area; people are not to sacrifice that, just so that electric cars can be built”.

Another group mobilized against lithium mining in Québec is the Comité Citoyen Protecting the Esquer, also opposing the Sayona Mining’s Authier lithium mining project. Rodrigue Turgeon, spokesperson for the Committee, states: “If lithium is the new white gold, water is our blue gold. It must be protected above all else. We must beware of greenwashing speeches that attempt to justify practices that will likely lead to major social and environmental problems.”¹¹



Export Development Canada’s office in downtown Ottawa (2017) © Alex Tétreault

11. MiningWatch Canada (2020) Conference report: “Turning down the heat: Can we mine our way out the Climate Crisis?” p.06 <https://miningwatch.ca/publications/2020/11/16/conference-report-turning-down-heat-can-we-mine-our-way-out-climate-crisis>

CANADIAN CAPITAL AND MINING LOBBY IN CHILE

In Chile we find a group of actors that promote in different ways the presence of Canadian capital and companies in the territory. These actors range from the Chilean-Canadian Chamber of Commerce, Export Development Canada (EDC) to the Canadian Embassy in Chile, through its commercial attaché. These concerted efforts have had fruitful results in Chile. Canada is the second largest foreign investor in the mining sector. In March 2021, during PDAC, Canadian Ambassador Michael Gort opened the Chilean delegation's presentation 'Chile and its Mining in Chile: Driving the Green Economy' with a clear message to Canadian mining companies: "It is my hope that your attention will be focused on Chile... There are significant business opportunities for you. I look forward to seeing you in Chile."

These "business opportunities" refer notably to access to Chilean metals and minerals. In addition, the Chilean-Canadian Chamber –which brings together companies such as Barrick, Minera Candelaria, Minera Vizcachitas Holding, Kinross, Minera Quebrada Blanca S.A., Teck and Yamana– has capitalized on the Chilean social crisis¹² with the "TRUST" initiative, which, according to the president of the Chamber, Pablo Herrera "is conceived as an instance of deep reflection to contribute to strengthen trust in our country, taking as a starting point the Canadian policies and practices that can serve as an example in the construction of the new Chile¹³".

CMMP AND CHILEAN LITHIUM

Canada plans to increase electric vehicle sales to 2.7 million by 2035, implying that the country will demand approximately 200,000 tonnes of lithium by that year¹⁴. Canadian companies that manufacture lithium battery technologies have told government officials: "Unless we start making battery materials and lithium battery cells here in North America, we will have to source large quantities of lithium from places like Chile."¹⁵

While the CMMP is a pan-Canadian initiative that seeks to develop the metals and critical minerals mining industry in Canadian territory, it is also being promoted internationally, in countries such as Chile, as an example to follow. Since 2019, shortly after the CMMP was launched in Canada, the Canadian embassy in Chile has been promoting it in parallel in various pro-mining spaces. In August 2019, for example, a Canadian delegation travelled to Copiapó, Chile, in order to promote the plan¹⁶. Canadian Ambassador Patricia Peña at the time tweeted, "@GAC_Corporate is here to support Canada's minerals and metals priorities internationally."¹⁷

It is worth mentioning that their target is the Maricunga Salt Flat, located in the Atacama Region, 168 kilometres northwest of Copiapó, where the country's first Lithium Research Center was also recently inaugurated. Lesley Muñoz Rivera, from the Colla Community of the Copiapó Commune and a member of the Plurinational Observatory of Andean Salt Flats (OPSAL),

recalls, "there were meetings with the Canadian ambassador and the Intendente [regional representative of the central government] of Atacama; we think that their intention is to invest in our territory to exploit it and extract lithium, with the promise of creating new jobs". In January 2020, representatives of the Canadian embassy were also present at a meeting organized with Atacameño or Lickanantay communities of the Atacama Salt Flat. "I asked them about their interest in coming to our territory," recounts Jorge Muñoz Coca, then leader of the Atacameño Community of Solcor and a member of OPSAL, "they told me that they were only interested in learning about the reality of the salt flat."

Likewise, and according to Gonzalo Muñoz - commercial attaché of the mining department of the Canadian Embassy in Chile: "of the minerals that Canada has identified as critical, a large majority can be found in Chile, such as copper, cobalt and lithium. [Canada] has, then, a fairly high potential interest in mining properties in Chile and in their development."¹⁸

The shift to a low-carbon economy, which is being driven from Canada, is accelerating nowadays partly because both the federal and provincial governments see it as an economic opportunity. Thus, the corporate energy transition¹⁹ boosted in the North with the alleged purpose of addressing the planet's climate crisis is causing irreversible damage to biodiversity and to fragile ecosystems, regardless of the rights of hundreds of indigenous, rural and urban communities, as we will see in this report.

¹². CIPER (2019) The "Social Outbreak" in Chile: a historical overview <https://www.ciperchile.cl/2019/10/27/el-reventon-social-en-chile-una-mirada-historica/>

¹³. Chile-Canada Chamber of Commerce. Trustalks <https://www.trustalks.cl/>

¹⁴. YYC Policy (2021) Why are poor villages paying the price for Canada's electric vehicle demand? <https://www.yycpolicy.org/blog/2021/4/18/why-are-poor-villages-paying-the-price-for-canadas-electric-vehicle-demand>

¹⁵. House of Commons Canada (2021) Standing Committee on Natural Resources <https://www.ourcommons.ca/DocumentViewer/en/43-2/RNNR/meeting-19/evidence>

¹⁶. Canadian Embassy in Chile twitter account (2019) <https://twitter.com/EmbCanChile/status/1159877722925088769?s=20>

¹⁷. Patricia Peña twitter account (2019) <https://twitter.com/patriciapena1/status/1159090357881180160?s=20>

¹⁸. Minería Chilena Magazine (2021) https://issuu.com/csa2020/docs/mch_478

¹⁹. TNI (2019) Energy Transition: ¿Corporate or Popular? <https://www.tni.org/es/publicacion/transicion-energetica-corporativa-o-popular>

THE PROSPECTORS & DEVELOPERS ASSOCIATION OF CANADA



The Prospectors and Developers Association of Canada (PDAC) is one of the world's leading mining industry associations, which, according to its website, works to support "a competitive and responsible mining sector." PDAC's existence and political power, along with that of the Mining Association of Canada, are examples of Canada's enormous presence in the global mining industry. Toronto, and Canada in general, are known as the "belly of the beast" when it comes to the global impacts of the mining industry, as they are home to the headquarters of most of the global mining companies, listed on Canadian stock exchanges.

PDAC lobbies intensively to secure government support and dilute the regulatory burden for the exploration and development sub-sector of the mining industry. Its members comprise many of the world's largest mining companies and a plethora of lesser-known small and junior companies that are often the industry's first steps into the realm of the latest extractive frontier. PDAC is known for its annual convention, a global reunion that convenes tens of thousands of members representing the bulk of the world's mining industry. From Canada to Chile, South Africa to Mongolia, corporate

and government representatives from around the world travel to downtown Toronto (or join via a virtual connection) to revel in the discursive portrayal of the mining sector as good corporate citizens, crucial to sustainable economic development in its current form. In simple words, considering its role as "the world's premier mineral exploration and mining convention," PDAC represents an astonishing summation of the power of the extractive industry.

Be it through an investors exchange, in trade shows or in conference sessions, PDAC is the place where industry lobbyists, executives and employees mingle with government representatives, ministers and leaders, along with mining suppliers, academics and think tanks. Mid-tier exploration companies seek to attract investors and/or bet on minerals in larger corporations looking to produce lucrative commodities. PDAC even hosts "Mining Matters"²⁰, a charity initiative that brings school children and educators to the convention, exposing them to the latest industry propaganda, making sure they leave with posters and coloring books about the mining industry's social responsibility and sustainability statements.

PDAC AND THE ENVIRONMENTAL ISSUE

Recent years have exposed two observable trends in PDAC with respect to environmental degradation and climate change. The first includes the industry's promotion of its own Corporate Social Responsibility (CSR) or Environmental and Social Corporate Governance (ESG) projects, which focus on the environment and are largely concerned with managing a com-

pany's exposure to risk. The second involves promotional efforts to attract investment to a country by wrapping the potential of its geological profile in a narrative of sustainability and climate awareness.

Predictably, in the context of environmental degradation and climate change, PDAC has become a central location for the mining sector to impose its own vision of environmental management. Here, companies and their government partners showcase their latest CSR and ESG efforts to attendees, distorting their negative social and environmental impacts. Plans for electrification and carbon emissions reduction, new life for the nuclear industry, mitigation of biodiversity impacts and a renewed focus on tailings pond management attain a significant platform at PDAC, and every word of the discourse is devoured by investors, media and spectators of all kinds. Flashy brochures, reports, panel discussions and small talk emphasize the alleged responsibility of the mining industry, while critical voices, ongoing lawsuits and/or recent catastrophes are either ignored or largely forgotten.

The climate crisis has not escaped the realm of mining industry propaganda. Originating in places far apart from altruism or corporate responsibility, the mining industry's commitment to environmental degradation and climate change takes the form of a sales pitch where the sector finds its own ways to capitalize on these crises. In this context, PDAC provides an exemplary venue for mining companies and their government partners to strategize and present their own approach to ensuring long-term growth and profits for the mining sector.

²⁰. Mining Matters Website <https://miningmatters.ca/>



Canadian First Nations during the march “Disrupt PDAC: People Before Profit” (2020). © Ramón Morales Balcázar

For example, countries seeking to label their jurisdictions as favorable in environmental crisis conditions, market themselves as crucial to the transition to green energy in PDAC. During the 2020 convention, for example, Chile’s minister of Mining highlighted how the country is a “leader in metals that facilitate the future,” despite the well-documented conflicts arising from ongoing and prospective lithium projects in the territory (including those discussed in this report). At PDAC 2021, the Ministry of Mining and the representatives of InvestChile, a government agency responsible for attracting foreign direct investment, launched their mining guide entitled *Minería Chilena: Impulsando la Economía Verde (Chilean Mining: Driving the Green Economy)*²¹ and promoted the country’s abun-

dance of cheap, low-carbon energy as an incentive to invest in the mining sector, allowing companies to reduce their greenhouse gas emissions and increase profit margins.

As the host country and home to such a large contingent of the global mining industry, Canada is also eager to promote, and to give unwavering support to, its own mining sector at PDAC, relying on a very similar discourse on green extractivism as a valid justification. As Prime Minister Justin Trudeau made clear in his address to conference attendees, the risks of environmental degradation and climate change, and the need for solutions to combat these crises, offer a great business opportunity for Canada’s mining sector:

“The mining industry can not only drive the clean transition, but also benefit from it. To produce high-density batteries and wind turbines, you need copper, nickel and cobalt. To build a solar panel, you need 19 metals and minerals. Well, Canada is home to 14 of them. But to keep our mining sector strong, it needs a partner in government to help it grow and remain competitive in the global marketplace. Our government is that partner. Last year, right here at PDAC, we, along with many of you, as crucial partners, launched the Canadian Minerals and Metals Plan to raise awareness of the importance of this sector, respond to the new challenges facing your industry and help you seize new opportunities in a changing economy.”²²

21. Minería Chilena Magazine (2021) <https://www.minmineria.cl/mineria-chilena-impulsando-la-economia-verde/>

22. PDAC (2020). Prime Minister Justin Trudeau speaks at a mining conference in Toronto: www.youtube.com/watch?v=TS7xdyNiQ88 (19:05)



Photo: Demonstrators in front of PDAC 2020 during Chile Day. © Ramón Morales Balcázar

In essence, government and industry events, such as PDAC, act as spaces in which green extractivism percolates down towards to every attendee, and its core ideas are promoted as the only way out of ongoing environmental degradation and climate change. Such efforts stand in stark contrast to those of civil society organizations, solidarity groups, and indigenous and frontline communities, which continue to highlight and confront the emerging conflicts between the technologies needed to decarbonize the global economy and the destructive extractive processes needed to create such technologies.²³ These voices and experiences, however, are largely excluded from events like PDAC, since the profit motive occupies a central place in contemporary green extractivism.

CHILE IN PDAC.... OR PDAC IN CHILE?

During the last version of PDAC, Michael Gort, Canada's current ambassador to Chile, said: "Canada is the largest investor in Chile in the mining sector (...) there are significant opportunities for Canadian mining suppliers globally at this time. It is my hope that your attention will be focused on Chile, where current projects are under construction or in advanced stages of development. There are significant business opportunities for you. I look forward to seeing you in Chile".

Canadian interests are largely supported by the agenda of the Chilean government, which plays a central role not only as a key player in the delivery

of contracts and environmental licenses to favor the exploration and exploitation of the salt flats, but also in the overt search for investors for mining projects, despite the known impacts that the current extraction of lithium accumulates in the Atacama Salt Flat. On the other hand, the pandemic not only meant a social and health crisis for the inhabitants of this territory, but also facilitated the rapid approval of mining projects in indigenous territories, such as the Maricunga Salt Flat, and the consolidation of green extractivism, under the pretext of economic recovery. Juan Carlos Jobet, minister of Energy and Mining, pointed out in the same instance: "We are convinced that economic recovery after Covid-19 will be based on responsible mining. Minerals are essential for almost all products and services needed to maintain

²³ E.g.: MiningWatch Canada (2020). Turning Down The Heat: Can We Mine Our Way Out of the Climate Crisis? https://miningwatch.ca/sites/default/files/miningwatch_review_page.pdf

and improve our standard of living”.

Over the last few years, Chile has shared its ambition to become a leader in the export of minerals and metals that may contribute to sustainable development. Today we reinforce our commitment to the determination to become one of the main mining districts for green investment.” Jobet even took advantage of the opportunity to capitalize on the social crisis that his own government contributed to deepen: “at the end of 2019, in the face of the social unrest that our country experienced (...) we defined a democratic institutional roadmap to draft a new constitution that requires a consensus to agree on the new contents of the constitution and ensures that international treaties and agreements and judicial agreements are fully respected”.

RESISTING PDAC AND THE TENTACLES OF CANADIAN MINING:

The flashy PDAC convention may indeed be the pinnacle event of the extractive industries, but it is also the simple manifestation of a form of extraction that has its foundations in a settler colonialism, in imperialism and in the neoliberal domination that meet at the heart of Toronto for several days a year. This must be exposed side by side with the continued exclusion of frontline communities from the mining industry and the Canadian government discourse and decision-making processes. This is the reason why civil society organizations, solidarity groups, academics and activists have increasingly fo-



Photo: Demonstrations in front of PDAC during the march “Disrupt PDAC: People Before Profit” (2020). © Ramón Morales Balcázar

cused on resisting the tentacles of Canadian mining everywhere, beyond the extraction site, even in the PDAC itself. And the sum of all that has led to a series of events and activities, including grassroots protests and a counter-conference showing how these industry events are critical case studies of extractivism and opportune moments to organize, disrupt and challenge destructive extractive trends.²⁴

The virtual format of PDAC 2021 due to the pandemic did not allowed space for wide debate and criticism from civil society. However, in 2020, during the last face-to-face convention before the pandemic extended worldwide, the delegation led by then minister of Mining, Baldo Procurica, was received amid protests organized by the Chilean community in Toronto and solidarity groups: at that time the country

had been plunged for three months into the worst social crisis since the dictatorship, and the images of human rights violations perpetrated by the government of Sebastián Piñera had been seen all around the world. It was during “Chile’s Day” that dozens of demonstrators crowded in front of the Toronto Convention Center with banners and placards, seeking to be heard by those attending the event, which included Canadian and Chilean authorities, representatives of ENAMI (Empresa Nacional de Minería), investors and specialized journalists. Messages such as “Water is a right, not a business” and “Lithium mining kills” were exposed side by side with drawings of eyes mutilated by bullets, and the demonstrators’ chants reached the rooms reserved for Chilean representatives.²⁵

At PDAC 2020, OPSAL joined the

²⁴. Mailchi (2020) People before Profit! An Epic #DisruptPDAC Report-Back <https://mailchi.mp/1d00867cbac3/people-before-profit-an-epic-pdac-report-back?e=22b61b2433>

²⁵. Beyond Extraction (2020) Beyond Extraction Counter Conference: <https://www.beyondextraction.ca/becc-landing>

counter-conference Beyond Extraction, organized by the collective of the same name at York University in Toronto, with a presentation on the contradictions and conflicts associated to lithium mining at the Atacama Salt Flat. In addition, OPSAL was part of a massive mobilization in front of the convention center that housed PDAC, in the heart of

the Canadian extractive capital. The march, convened by various collectives and social movements under the slogan "People Before Profit", took place during the blockades of rail lines in Ontario and Québec, organized in solidarity with the Wet'suwet'en First Nation who were resisting the Coastal Gaslink Pipeline project, a controversial initiative

that seeks to build a gas pipeline in the ancestral territories of this First Nation. Amidst speeches and artistic performances, hundreds of demonstrators remained for several hours in front of the Convention venue, where the funders of Coastal Gaslink and the representatives of large Canadian and Chilean extractive projects shared space.



Photo: Demonstrators in front of PDAC 2020 during Chile Day. © Ramón Morales Balcázar

Part 2.

A brief history of Canadian mining in Chile



The presence of Canadian capital in the Chilean mining sector dates back to the beginning of the 1990s. This, coinciding with a new momentum acquired by copper and gold mining and also with the increase in mining investments under contracts signed with the State, which ensured the invariability of their conditions (Decree Law 600).²⁶ For example, the “La Coipa” gold project, originally owned by Placer Dome (later acquired by Canadian Barrick Gold) began operations in 1993, while the “Quebrada Blanca” copper project did it in 1994. The latter was originally owned by Cominco Q.B. Resources Ltd. (acquired in 2007 by Teck Resources)²⁷ and Cerro

Colorado, then owned by Rio Algom Ltd. (now a subsidiary of Australia’s BHP).²⁸ In 1997, the Canada-Chile Free Trade Agreement (CCFTA) entered into force, regulating and facilitating the transaction of goods and services between the two countries. The CCFTA also includes environmental and labor cooperation agreements.²⁹ This agreement - which contemplates tariff liberalization - boosted the massive entry of Canadian capital into the Chilean mining sector not only in the exploration and mining segment, but also in the engineering, environmental, mine closure and equipment supply segments, among others. In 2008, representatives of both governments signed

a Memorandum of Understanding (MOU) on “Cooperation for the Sustainable Development of Minerals and Metals” to, among other things, promote investment and trade in minerals and metals, as well as corporate social responsibility (CSR)³⁰ actions. The MOU marks the beginning of joint work between the Department of Natural Resources Canada, the Chilean Ministry of Mining and the Canadian Embassy in Chile, which in 2012 published the so-called “Mining Toolkit” in support of investors interested in the sector.

An important platform for the entry of Canadian capital into the mining sector in Chile is the International

²⁶. Moguillansky, G. (1998). Chile: Las inversiones en el sector minero 1980-2000, Serie Reformas Económicas, CEPAL. https://repositorio.cepal.org/bitstream/handle/11362/7433/2/S9800075_es.pdf

²⁷. Mining Watch Canada & OLCA (2020). Analysis of the Quebrada Blanca Expansion Project Phase II. https://miningwatch.ca/sites/default/files/eng_-_quebrada_blanca_report.pdf

²⁸. Moguillansky, G. (1998); Consejo Minero de Chile (n.d) <https://consejominero.cl/quienes-somos/mapa-minero/> Projects currently belonging to Canadian capitals, such as Candelaria. They began operations in the first half of the 1990s, while they were still in the hands of investors from other countries (specifically the U.S. Phelps Dodge until 2014).

²⁹. Their latest amendment agreements date from 2017 and came into force in February 2019. They include a chapter on Gender and Trade <https://www.subrei.gob.cl/acuerdos-comerciales/acuerdos-comerciales-vigentes/canada>

³⁰. Canadian Embassy in Chile (2012), Canada-Chile Cooperation for the Sustainable Development of Minerals and Metals. https://www.canadainternational.gc.ca/chile-chili/bilateral_relations_bilaterales/mining.aspx?lang=eng

Investment Forum for Mining Suppliers, organized annually by the Chilean agency Corporación Chilena de la Producción (CORFO). Another one is the aforementioned PDAC convention held annually in Toronto. In the context of the latter, in 2019 the Chilean Minister of Mining and the Canadian Minister of Natural Resources signed a new MOU for Cooperation in the Sustainable Development of Minerals and Metals, aimed at strengthening cooperation and exchange ties and generating conditions to promote mining investment projects in Chile. On that occasion, the then Chilean Minister of Mining emphasized that both countries “are committed to combating climate change, and it is mining that will provide materials for clean and renewable energies”.³¹ Canadian mining investment has been dynamic in terms of project transfers and acquisitions, positioning Canada as the main source of foreign investment in the mining sector in 2019, currently occupying the third position in terms of total investment stock.³² Also as of 2019, Chile was the second country, af-



Photo: Signing of the Chile-Canada PDAC 2019 Memorandum of Understanding. Source: Ministry of Foreign Affairs, Chile

ter the United States, with the largest Canadian mining assets, with 53 Canadian exploration and mining companies.³³ Among the Canadian conglomerates with projects in current operation we can mention Barrick Gold, with Zaldívar (50% ownership)³⁴; Kinross, with La Coipa, Lobo-Marte and Maricunga³⁵; Yamana Gold, with El Peñón³⁶ and Minera Florida³⁷; Lundin Mining Corp., with Candelaria³⁸; and Teck, with

Quebrada Blanca and Carmen de Andacollo.³⁹

According to data from the Chilean Copper Corporation (COCHILCO), 23% of the total mining investment portfolio for the 2020-2029 period corresponds to Canadian capital, which is by far the main source of investment, second only to Chilean capital and companies.⁴⁰ In copper mining (89.4% of the total),

31. América Economía (2019) Chile and Canada agree to collaborate in the sustainable extraction of minerals and metals. <https://www.americaeconomia.com/negocios-industrias/chile-y-canada-acuerdan-colaborar-en-la-extraccion-sustentable-de-minerales-y-> Ministerio de Relaciones Exteriores de Chile (n.d.) <https://chile.gob.cl/canada/noticias/participacion-de-chile-en-pdac-2019>; EMOL (2019) Chile and Canada seal mining support and promotion of 32 investment projects

32. Banco Central (n.d.) Foreign Direct Investment Second Trimester 2021. <https://www.bcentral.cl/web/banco-central/areas/estadisticas/inversion-extranjera-directa-ied>

33. TV Senado (2021) Green mining for the 21th Century <https://tv.senado.cl/tvsenado/programas/evento/seminarios/especiales-tvs-mineria-verde-para-el-siglo-xxi/2021-07-30/054017.html>

34. Barrick (n.d.). Zaldívar, Chile. <https://www.barrick.com/English/operations/zaldivar/default.aspx>

35. Kinross (n.d.) Our Projects. <https://www.kinrosschile.cl/nuestros-proyectos/nuestros-proyectos/default.aspx>

36. YamanaGold (n.d.) Portafolio, El Peñón. <https://www.yamana.com/English/portfolio/producing-mines/el-penon/default.aspx>

37. YamanaGold (n.d.). potafolio, mINERA Florida, <https://www.yamana.com/English/portfolio/producing-mines/minera-florida/default.aspx>

38. LundinMining (n.d.) Candelaria Mining Complex. <https://www.lundinmining.com/operations/candelaria-mine/>

39. According to Teck, Quebrada Blanca Phase 2 would start production in the second trimester of 2021 <https://www.teck.com/es/>

40. Canadian investment would amount to MMUS \$ 17.330, followed by investment coming from the United Kingdom, which represents 10% of the total, with MMUS \$ 7.526. COCHILCO (2020). Chilean mining investment-Project Portfolio 2020-2029 <https://www.cochilco.cl/Listado%20Temtico/Inversion%20en%20la%20mineria%20chilena%20-%20cartera%20de%20proyectos%202020-2029%20VF.pdf>

Canadian investment represents 20% of the project portfolio. Among the projects considered, the main Canadian investors are Newgold-Teck, through the NuevaUnion project, and Teck, with its Quebrada Blanca Hipógeno or QB2 project.⁴¹

This powerful advance of Canadian mining companies in Chile has not been without controversy, especially regarding the socio-environmental impacts and damage caused on the territories, the population and the ecosystems. One of the best-known cases is the binational gold, silver and copper project Pascua Lama, owned by Barrick Gold. This project was totally and definitively shut down even before it began operating, due to the very serious environmental regulations infringements, such as non-compliance with glacier and glaciarets monitoring; water discharges and river contamination, putting the population at risk due to exposure to manganese; affecting the Andean ecosystem of meadows, and other violations.⁴² One recent case involves the conviction of Minera Maricunga, owned by Kinross, for environmental damage caused by the operations of the Refugio mining project, and specially by its water extraction, which drained more than 70 hectares of Andean meadows in the



Map 2: Main Canadian Mining Projects in Chile (active and non-active). Own elaboration.

Laguna del Negro Francisco and Laguna Santa Rosa complex. This area is protected by the Ramsar Convention due to its international importance for biodiversity.⁴³ Another case concerns the claims filed for environmental non-compliance against Teck's Carmen de Andacollo mining company, related to com-

plaints by the community regarding air quality and population resettlement.⁴⁴ Ongoing projects such as Andes Copper's Vizcachitas are also the focus of conflict today, facing fierce opposition from the inhabitants of Putaendo⁴⁵ due to the lack of community participation in the early stages of the project, and

41. Op. Cit. Another important Canadian mining project on the agenda is the Vizcachitas project, belonging to Los Andes Copper, and "the next largest copper mine in Chile", according to the same mining company <https://www.losandesopper.com>

42. Primer Tribunal Ambiental de Chile (2020). The First Environmental Court confirms the final closure of Pascua Lama and upholds fines of up to 7 billion pesos. <https://www.1ta.cl/primer-tribunal-ambiental-confirma-clausura-definitiva-de-pascua-lama-y-mantiene-multas-de-mas-de-7-mil-millones-de-pesos/>

43. Tribunal Ambiental de Chile (2018). The Environmental Court of Santiago condemns Maricunga Mining Company for environmental damage in high Andean wetlands in the Atacama region. <https://www.tribunalambiental.cl/sentencia-maricunga-d-26-27/>

44. Primer Tribunal Ambiental de Chile (2021), Municipality of Andacollo submits complaint against SMA for alleged infringements by Teck Mining Company. <https://www.1ta.cl/municipalidad-de-andacollo-ingresa-al-primer-tribunal-ambiental-reclamacion-contra-la-sma-por-supuestos-incumplimientos-de-minera-teck/>

45. Putaendo Libre website: <http://putaendolibre.com/tag/putaendo-sin-mineras/>

their fear of the environmental impacts that the project would generate in an area affected by water scarcity⁴⁶ and which is home to fragile ecosystems that depend on glaciers and Andean wetlands directly affected by the mining company's operations.

In addition to the environmental questions against Canadian mining, authorities have detected various acts of corruption, as in the case of Minera Candelaria, owned by Lundin Mining. This company has faced in the past, and is currently facing again, some environmental sanction procedures for environmental non-compliance.⁴⁸ Its actions have directly affected the quality of life of the towns and communities surrounding its operations in the commune of Tierra Amarilla. In a criminal trial currently underway, authorities are investigating a network of lobbying, bribery and payoffs in which, through contributions of close to US\$ 22.5 million, the mining company prevented the municipality of Tierra Amarilla from hindering the environmental approval obtained in 2015 for the operational extension of Candelaria until 2030. In April 2021 a formal investigation was initiated against Lundin's Minera Can-



Photo: Inspection visit to wetlands of the Pantanillo-Ciénaga Redonda Biological Corridor drained by Kinross Source: Second Environmental Court of Chile (2016).⁴⁷

delaria and its former manager for alleged bribery, as well as against the former mayor of Tierra Amarilla for bribery.⁴⁹ In September 2021 the formalization of a sitting congressman was requested for his participation in the corruption scheme.⁵⁰

Canadian mining in Chile, like all extractivism, has been a source of socio-environmental conflicts and, in many cases, has operated through corruption at various levels. Without significant changes in Chilean legislation, the idea of main-

taining a development model based on the plundering and destruction of nature as a way out of the climate, health and economic crisis could result in the emergence of new conflicts in the lithium mining frontier.

We will next review how Canadian investments are pouring into salt flats (salares) in Northern Chile, and how some OPSAL members understand this new extractivist onslaught on their territories.

⁴⁶Drilling activities associated with the mining project were first proposed in 2007, and rejected on environmental grounds. The company insisted in 2019 and was granted an environmental permit, which was revoked in 2020 by the courts, in acceptance of legal remedies sought by the affected communities. In May 2021 the drilling proposal was accepted again. The numerous administrative appeals that have been presented since then are still being processed by the judiciary.

https://seia.sea.gob.cl/expediente/expedientesRecursos.php?modo=ficha&id_expediente=2143396497

⁴⁷Tribunal Ambiental de Chile (2016). Environmental Court carried out verification visit to wetlands that would have been affected by the operations of Maricunga Mining Company in the Atacama region.

<https://www.tribunalambiental.cl/tribunal-ambiental-llevo-a-cabo-visita-inspectiva-a-humedales-que-se-habrian-visto-afectados-por-operaciones-de-minera-maricunga-en-la-region-de-atacama/>

⁴⁸Superintendencia del Medioambiente (2021) SMA Formulated Six Charges to "Compañía Contractual Minera Candelaria" <https://portal.sma.gob.cl/index.php/2021/07/27/sma-formulo-seis-cargos-a-compania-contractual-minera-candelaria/>

⁴⁹Consejo de Defensa del Estado de Chile (2021) CDE participated in a new judicial procedure to investigate crimes of corruption by the Municipality of Tierra Amarilla. <https://www.cde.cl/cde-participo-en-nueva-formalizacion-de-causa-en-que-se-investigan-graves-delitos-de-corrupcion-cometidos-en-contra-de-municipalidad-de-tierra-amarilla/>

⁵⁰Cooperativa (2021). Representative James Mulet will be formally accused for the act of passive bribery.

<https://m.cooperativa.cl/noticias/pais/region-de-atacama/diputado-mulet-sera-formalizado-por-el-delito-de-cohecho-pasivo/2021-09-18/162139.html>

Part 3.

Andean salt flats and wetlands: lithium or life ?



According to Chile's National Geology and Mining Service, SERNAGEOMIN,⁵¹ salt flats (salares) are continental salt deposits with high concentrations of lithium, potassium, boron and sodium, all of economic interest. They are located in the north of the country, between the regions of Arica-Parinacota and Atacama, in an area of 250,000 km², between 1,000 and almost 5,000 meters above sea level. According to their specific location, they are classified as Coastal Range, Central Depression, Pre-Andean and Andean salt flats. Among these, the salt flats of main interest due to their lithium concentrations and their conditions for exploitation are the Pre-Andean and Andean salt flats. Although lithium mining began in the Atacama Salt Flat in the 1980s, the aquifers of this and other

salt flats continue to be exploited by the extractivist cycles of saltpeter and copper mining, as well as other metals, up to the present. According to the same state agency, the public information available on these complex ecosystems and the impacts that lithium mining generates on them are "of different origin, scope and degree of detail", which has been reaffirmed in various studies and research that assert that its exploitation advances thanks to the existence of a high degree of scientific uncertainty and the lack of political will to properly apply the precautionary principle in order to ensure the preservation of nature and the conservation of the environmental heritage.⁵²

Both the State and the mining companies that seek to exploit the

salt flats tend to describe them as inert spaces whose value lies only in the minerals that can be extracted from them.⁵³ Government officials usually catalogue their mineral-rich groundwater not as water as such, but as brines, in order to authorize their extraction in overexploited and hydrologically depleted basins.⁵⁴ Moreover, none of the existing lithium projects in Chilean salt flats have been subject to a process of free, prior, informed and non-discriminatory consultation with the indigenous peoples affected by their operations. However, the truth is that the salt flats, especially the Pre-Andean and Andean (or high Andean) ones, constitute fragile dynamic hydrogeological systems with an unparalleled environmental value. Their waters are associated with lagoons, meadows

⁵¹ Gajardo, A. & Carrasco, R. (2010), Salares del norte de Chile: potenciales fuentes de litio. CEPAL, Santiago de Chile. https://www.un.org/esa/dsd/susdevtopics/sdt_pdfs/meetings2010/EGM_Latinamerica/Presentations-and-Speeches/Session-2/5_ANIBAL_GAJARDO_C/7A.SERNAGEOMIN.Seminario-Litio.CEPAL.GAJARDO.v2.pdf

⁵² Cámara de Diputados (2019). Informe de la Comisión Especial Investigadora de los actos del gobierno relativos al origen y adopción del acuerdo entre CORFO y SQM; Liu, W. et al. (2019) Spatiotemporal patterns of lithium mining and environmental degradation in the Atacama Salt Flat, Chile. *International Journal of Applied Earth Observation and Geoinformation*, 80:145-156; Amphos 21 (2018). Estudio de modelos hidrogeológicos conceptuales integrados para los Salares de Atacama, Maricunga y Pedernales, Informe Final Etapa 3. Elaborado para Comité de Minería No Metálica de CORFO; Babidge, S. (2018). Sustaining ignorance: the uncertainties of groundwater and its extraction in the Salar de Atacama, northern Chile. *Journal of the Royal Anthropological Institute*, 25(1): 83-102.

⁵³ From a legal point of view, this stance is based on the definition included in the Chilean Constitution and the mining regulations enacted during the dictatorship, which placed the salt flats in the same legal category as mines and mineral deposits. This ruling allows for the allocation of mining concessions in areas within those natural formations.

⁵⁴ Jerez, B. et al., (2021). Lithium extractivism and water injustices in the Salar de Atacama, Chile: The colonial shadow of green electromobility. *Political Geography*, 87, 102382; Bustos, B. et al. (2021). Harvesting Lithium: water, brine and the industrial dynamics of production in the Salar de Atacama. *Geoforum*, 119: 177-189; Ejeian, M., Grant, A., Shon, H. K., & Razmjou, A. (2021). Is lithium brine water?. *Desalination*, 518, 115169; OPSAL (2021) Garcés, I., & Álvarez, G. (2020). Water mining and extractivism of the Salar De Atacama, Chile. *WIT Transactions on Ecology and the Environment*, 245, 189-199.

and wetlands (commonly called Andean wetlands) that have supported the development of millenary indigenous communities and have given rise to a unique and ample biodiversity, ranging from extremophile organisms to the emblematic flamingos.⁵⁵ It is no coincidence that most of the Andean salt flats and wetlands impacted by mining extractivism are located in Atacameño, Lickanantay, Colla, Quechua or Aymara territories; or that they are in areas protected by National Reserves, National Parks, Nature Sanctuaries or Ramsar Sites. The threat that lithium mining projects pose to this cultural and biological wealth calls into question the viability of a transition based on extractivism as a development model, and on dispossession as a mechanism for the appropriation of critical minerals by the great polluting powers of the planet.⁵⁶

CANADIAN LITHIUM PROJECTS IN CHILE'S SALT FLATS

Compared to its general position of leadership in terms of foreign investment in the Chilean mining sector, Canadian investments in lithium projects are so far marginal. Of the four production projects that currently have environmental qualification to operate, only one of them has a minority participation of Canadian capital, the so-called "Blanco Project" in the Maricunga Salt Flat, located in the Atacama Region. In general, the "projects" (or rather, interests) of Canadian companies linked to the exploration and potential exploitation of lithium in Chile correspond to junior companies, and their execution is subject to a considerable degree of speculation and uncertainty due to their current state

of progress and to the multiple permits required. Despite this, the socio-environmental impacts of these projects start from the exploration phase, especially when they are located in sensitive areas such as the Andean salt flats inhabited by indigenous communities, and where historical mining extractivism has caused synergistic and cumulative damage that adds to the effects of climate change.

BEARING LITHIUM AND THE "PROYECTO BLANCO" IN THE MARICUNGA SALT FLAT

Compared to its general position of leadership in terms of foreign in-



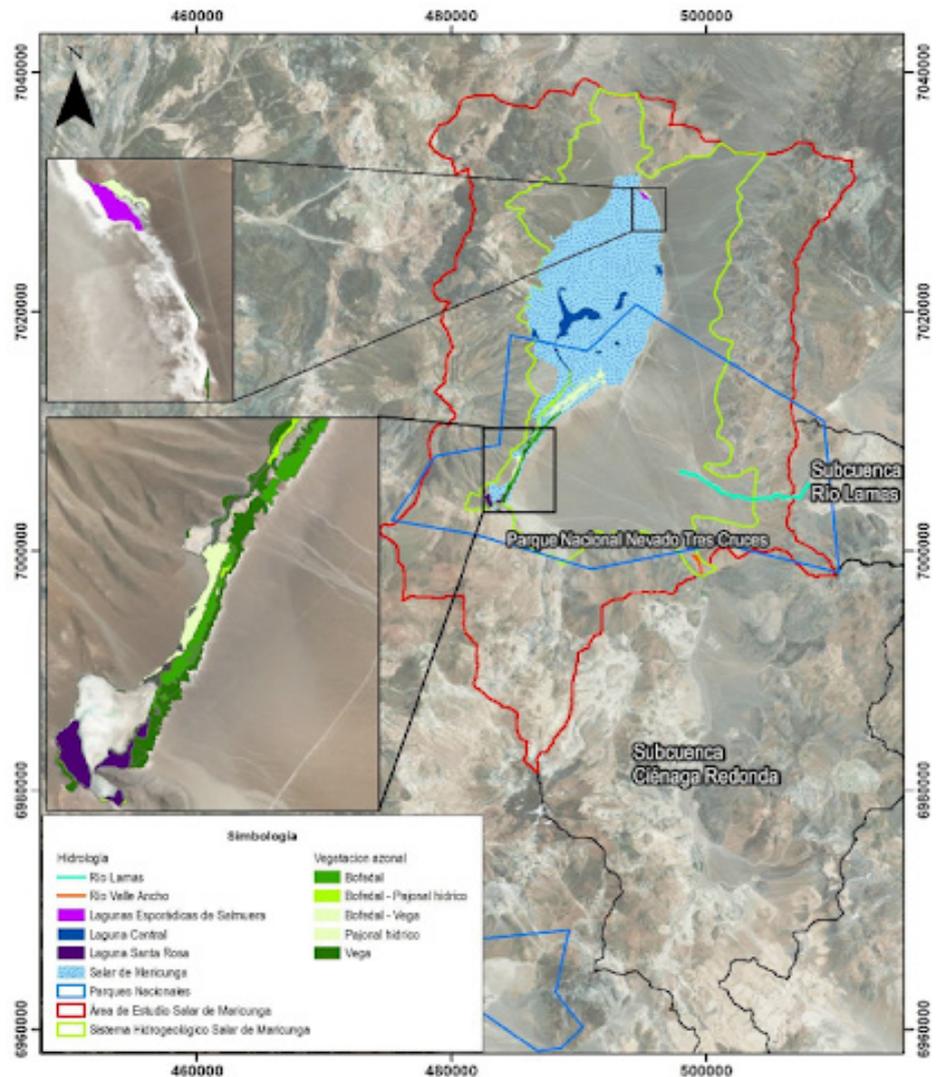
Photo: Rudecindo Espíndola Toroco restoring the family farm in Quebrada de Soncor (2021). © Ramón Morales Balcázar

⁵⁵ Bonelli, C. & Dorador, D. (2021) Endangered Salares: micro-disasters in Northern Chile, *Tapuya: Latin American Science, Technology and Society*, DOI: 10.1080/25729861.2021.1968634; OPSAL (2021); Garcés, I., & Álvarez, G. (2020).

⁵⁶ Bustos et al., (2021); Jerez et al., (2021); OPSAL (2021), *Ecología de saberes por la protección de nuestros salares y humedales*; Voskoboinik, D. M., & Andreucci, D. (2021). Greening extractivism: Environmental discourses and resource governance in the 'Lithium Triangle'. *Environment and Planning E: Nature and Space*, 25148486211006345.

vestment in the Chilean mining sector, Canadian investments in lithium projects are so far marginal. Of the four production projects that currently have environmental qualification to operate, only one of them has a minority participation of Canadian capital, the so-called “Blanco Bearing Lithium Corp, (formerly Bearing Resources Ltd) is a Canadian company based in Vancouver, British Columbia, and trading on the Toronto Stock Exchange (TSX Venture Exchange), presently engaged in the exploration and development of lithium projects. Bearing Lithium holds an 18% ownership interest in the so-called “Proyecto Blanco” of Minera Salar Blanco S.A. (MSB), which is 51% owned by Australia’s Lithium Power International and 31% by Chile’s Minera Salar Blanco S.p.A. Among Canadian investments in this area, this is the project with the highest state of progress, and it is in the construction stage.

The Blanco Project, located in the Maricunga Salt Flat—the southernmost salt flat in Chile— received its favorable RCA (Environmental Qualification Resolution) in February 2020, which makes it the first lithium (and potassium) production project approved outside of those already operating in the Atacama Salt Flat, Antofagasta region. The Blanco Project was environmentally evaluated in record time, with the explicit support of the government of Sebastián Piñera. The President included it in the list of priority projects of the “Office of Sustainable Projects Management” (GPS Office)⁵⁷, which he himself created and later disintegrated in the face of questioning, when it came to be considered an internal lobbying office, aimed at “promot-



Map 3: Maricunga Salt Flat: Lagoons, Meadows, Wetlands, National Park and Ramsar System. Source: Flo Solutions (2018) Salar de Maricunga Conceptual Hydrogeological Model - Blanco Project Rev.2.

ing sustainable investment”.⁵⁸ The salt flat and its waters are connected to the Santa Rosa Lagoon, which in turn feeds a complex lagoon system which includes meadows and wetlands with a fundamental environmental importance and ecosystem value for the biological conservation of vulnerable flora and fauna. It has been recognized as part of the Nevado Tres Cruces National Park and also as the Ramsar Site, or wetland of international importance, Negro Fran-

cisco Lagoon and Santa Rosa Lagoon complex. These important conservation sites have already been affected by Canadian mining activity, specifically by the operations of the Kinross subsidiary that drained more than 70 hectares of Andean meadows. These negative impacts were confirmed by the judgment handed down by the Chilean environmental courts that, in 2018, ruled against the company for the environmental damage caused to the Valle Ancho meadow.⁵⁹

57. The “GPS Office” was created in July 2018, but its funding was finally rejected by the parliament in the discussion of the budget for 2021. It functioned, from the headquarters of the Undersecretariat of Economy, as an internal body for the acceleration and simplification of project approval. In January 2020, GPS signed an agreement with the Environmental Evaluation Service (in charge of the evaluation and environmental qualification of projects) for the transfer of resources for more than 90 million pesos [110.000 USD apx.] to make the permit approval processes “more efficient” <https://www.bcn.cl/leychile/navegar?idNorma=1120369>

58. The problem with the GPS is that, in contradiction with its own name, many of the projects it has supported are far removed from sustainability and have been in the eye of the storm due to the significant environmental damage they have caused. This suggests that the government is only concerned about injecting resources and activating the economy, without thinking about the environmental impacts that may arise from these activities. Among the projects supported by GPS are Alto Maipo, Los Bronces, Dominga, Mina Invierno and Mall Vivo. Por la Acción Climática (2020) Statement made by the SCAC when the budget for the GPS Office was eliminated <https://www.porlaaccionclimatica.cl/declaracion-de-la-scac-ante-la-eliminacion-del-presupuesto-de-oficina-gps/>

59. Tribunal Ambiental de Santiago (2018). Environmental Court of Santiago condemns Minera Maricunga for environmental damage to high Andean wetland in the Atacama Region. <https://www.tribunalambiental.cl/sentencia-maricunga-d-26-27/>

The current mining development of Minera Salar Blanco corresponds to Phase 1 of the project, and is being implemented in the territorial concessions that the mining company established prior to 1979, with authorization from CCHEN for the exploitation and sale of lithium.⁶⁰ Although MSB owns more mining concessions on the Salt Flat, they are dated after 1979, so the exploration and exploitation of lithium requires the prior signing of contracts or agreements with the State or its companies (in addition to the authorization of the CCHEN).

In order to make progress in the eventual implementation of Phase 2 (in post-1979 concessions), in August 2019 MSB signed an MOU for the joint development of lithium projects in the Maricunga Salt Flat with the state mining company CODELCO, whose subsidiary "Sales de Maricunga SpA" signed in 2018 a Special Lithium Operating Contract (CEOL) with the State of Chile. To secure financing for its projects, in 2021 MSB entered into an MOU with Japan's MITSUI, committing to the potential sale of annual quotas of battery grade lithium carbonate for an initial period of 10 years.⁶¹

During the environmental qualification process for the project, the studies submitted by the mining company were questioned by the public entities in charge of reviewing them, by participants in the citizen participation process and by the Colla indigenous communities. These

questioning were later dismissed by the environmental authority. Consequently, multiple administrative and judicial appeals were filed after its approval, denouncing, among other points, the deficiencies of the models and studies used to implement measures and actions intended to prevent and rule out impacts on hydrological and vegetational resources and traditional practices of the Colla indigenous communities in the sector. Some of the Colla communities claim to have been excluded from the indigenous consultation processes, totally disregarding the traditional and symbolic use they make of the salt flat waters –such as livestock transhumance and plant gathering, among others– in contravention of ILO Convention 169.

While some of the protection actions filed have been rejected by the Supreme Court, some administrative remedies (complain and invalidation appeals) are ongoing and seek to override the RCA of the project, which has already begun to intervene, severely and irremediably, in the salt flat, threatening the ecosystem and the biodiversity, as well as the sustainability of traditional practices.⁶² Elena Rivera, representative of the Colla Community of the Copiapó Commune and member of OPSAL, points out that the communities located downstream of the Maricunga Salt Flat had been contacted by private mining companies and CODELCO, but when they expressed their rejection of lithium

extractivism in their territories, they were never contacted again. On the other hand, the companies began negotiations with communities farther away from the salt flat, but which are located in the brine evaporation area, in basins and communities distant from the area where the salt flat is located. In this way, and with the approval of the SEA, it has been argued that the project 'fulfilled' the requirement of indigenous participation.

The concern of the surrounding Colla communities, whose female leaders have become true guardians of the Maricunga Salt Flat, is due to the multiple projects that are superimposed on the same territory. They are also worried by the lack of attention from the authorities and by their own lack of means to effectively and safely defend the territory.⁶³ "The actions we have taken as a community are a Remedy of Protection and an Appeal for Invalidation for the Salar Blanco Project; a Remedy of Protection and an Appeal of Claim for the Maricunga Salt Flat Project, and a Remedy of Protection against CODELCO, since in none of [those two projects] an indigenous consultation was implemented", explains Lesley Muñoz Rivera; and adds "they enter with the typical green discourse, with cliché words such as sustainability, transition, when the only thing that matters to them is production, creating more wealth at the expense of the territories, with the promise of better jobs. We believe that Chile and its capitalist policies contribute to make us, indigenous peoples, the first to be

⁶⁰. CCHEN (2018) Board of Directors Agreement N°2277/2018.

⁶¹. Globenwire (2021) Minera Salar Blanco, Agrees Strategic Alliance with Mitsui for the Development of Maricunga and Future Developments in Chile. <https://www.globenwire.com/en/news-release/2021/05/11/2226778/0/en/Minera-Salar-Blanco-Agrees-Strategic-Alliance-with-Mitsui-for-the-Development-of-Maricunga-and-Future-Developments-in-Chile.html>

⁶². Mayor detalle en OPSAL (2021), 166 y ss. El estado actual de tramitación de las vías administrativas se puede consultar en la página del SEA: https://seia.sea.gob.cl/expediente/expedientesRecursos.php?modo=ficha&id_expediente=2141401298

⁶³. Voces en Defensa de Maricunga: Cápsula N°2 - Elena Rivera, Comunidad Indígena Colla Comuna de Copiapó (2021). Voices in Defense of Maricunga: Capsule N°2 <https://resumen.cl/articulos/video-voces-en-defensa-de-maricunga-capsula-n2-elena-rivera-comunidad-indigena-colla-comuna-de-copiapo>; Ercilia Araya: the female Pai-ote leader criminalized for fighting against Canadian mining companies in Chile. (2019). <https://observatorio.cl/ercilia-araya-la-lideresa-pai-ote-criminalizada-por-luchar-contra-las-mineras-canadienses-en-chile/>



Photo: Elena Rivera (Colla Community of Copiapó / OPSAL) walks in front of Santa Rosa Lagoon, Maricunga Salt Flat (2020).

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affected by this longed-for development. There is no respect for the environment... and above all, there is no conscience of preservation of both the territories and the indigenous peoples.”

WEALTH MINERALS LTD. AND ITS PROJECT PORTFOLIO

Wealth Minerals Ltd. (WM) is a Canadian company based in Vancouver, British Columbia, engaged in the acquisition, exploration and development of lithium projects in South America. The company trades on the Toronto Stock Exchange and continually updates and evaluates its portfolio of metals exploration projects. Originally formed in 2005, in 2016 it was established as a company specialized to lithium resources, initiating that same year the search for mineral

properties in Chile.

ATACAMA SALT FLATS

The Atacama Salt Flats are the source of 100% of the lithium currently extracted and exported from Chile by SQM and Albemarle companies. In the same salt flats, the copper mega projects Minera Escondida, controlled by BHP and Rio Tinto, and Minera Zaldívar, controlled by Antofagasta Minerals and the Canadian company Barrick, are extracting fresh water. The presence and impacts of these mega-mining companies have been the subject of controversy between the companies, the 18 Atacameño communities gathered in the Council of Atacameño Peoples, and the State itself. Although the companies have managed to establish a solid system of community relations through various agreements, questions regarding the irrevers-

ible damage that their operations would have on the complex ecosystems of the Atacama Salt Flat basin increase, as these impacts become more visible, especially in the lagoon systems that exist in the marginal areas of the Salt Flat. It is in this context that WM arrives in the territory with the “Salar de Atacama” project –to be located in the north of the salt flat– as its central and priority initiative. According to WM, its intention is to follow the success of third-party facilities located to the south of its properties,⁶⁴ adding that the proximity of the project with such facilities allows to infer that its exploration potential is favorable for the discovery of productive brines, adding that the proximity of the project with such facilities allows to infer that its exploration potential is favorable for the discovery of productive brines, and that the direction of geothermal water flows coming from the north of the Salt Flat would increase this potential.⁶⁵

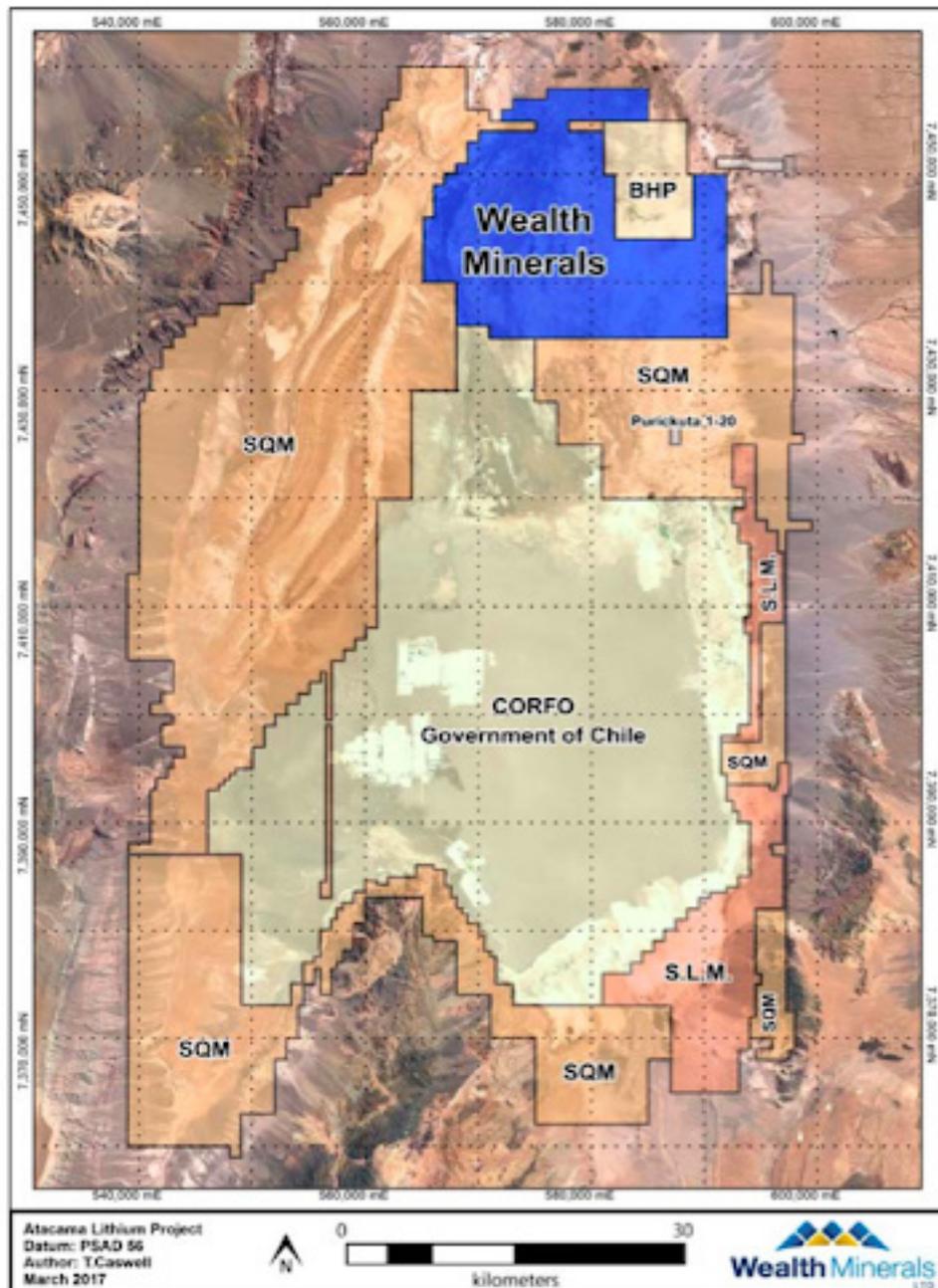
⁶⁴. WM (2021) Corporate Presentation. https://wealthminerals.com/wp-content/uploads/2021/08/WML-Corporate-Presentation_August_2021.pdf

⁶⁵. WM (n.d) Project Atacama Salar. <https://wealthminerals.com/projects/atacama-salar>

WM indicates that its concessions cover an area of approximately 46,200 hectares⁶⁶ of the northern part of the Salt Flat, attaching a map that shows their location (until 2019 it indicated that there were more than 54 thousand hectares).⁶⁸

However, public data available from the Mining Concessions Registry of SERNAGEOMIN⁶⁷ indicate that most of these concessions correspond to exploration concessions that are being processed and not yet constituted, therefore, they do not yet exist. In practice, this means that the process of establishing exploration concessions has not been fine-tuned, and the same can be said of the exploitation concessions. Anyhow, fine-tuned or not, it would still require an authorization from the CCHEN and the signing of a CEO or administrative contract with the State or its companies, plus all the relevant environmental permits. In 2018, WM signed a joint venture with the state-owned company ENAMI. The venture was to be formalized in 2020, but to date there is no news that this has taken place. In October 2019 WM signed a Memorandum of Understanding (MOU) with the company Uranium One (of the Russian group ROSATOM), for the sale of 51% of the project, which would include the incorporation of lithium production technologies without water evaporation.

Despite the various announcements, the progress of the project continues to be extremely complex, given the state of overexploitation of the Atacama Salt basin and the ongoing socio-environmental conflicts related to lithium and copper



Map 4: WM's 'proprietary' concessions (according to the company). Source: WM (2017) Technical Report Atacama Project.

mining that confront the communities, mining companies and the State. All of the above has generated strong resistance to the advance of new extractive projects, many of which have been paralyzed or abandoned for this reason. It should be remembered that the salt flats are located within the ancestral territory of the Atacama people and

also within the ADI (Indigenous Development Area) Atacama la Grande. In addition, several of its sectors —lagoons, meadows and wetlands— are protected as part of the Los Flamencos National Reserve and as Ramsar sites. This reality has been ignored by WM, who in its "Technical Report Atacama Lithium Project"⁶⁹ published in 2017 stated

66. WM (2019) Corporate Presentation. <https://wealthminerals.com/wp-content/uploads/2019/12/2019-12-05-CP-WML.pdf>

67. SERNAGEOMIN (n.d.) Catastro Minero On Line, <http://catastro.sernageomin.cl>

68. CONADI (n.d) Áreas de Desarrollo Indígena, <http://www.conadi.gob.cl/areas-de-desarrollo-indigena> <http://www.conadi.gob.cl/areas-de-desarrollo-indigena> 10.09.2021

69. WM (2017) 43-101 Technical Report on the Atacama Lithium Project. https://wealthminerals.com/wp-content/uploads/2017/06/Atacama-43-101-final-mar10_17.pdf

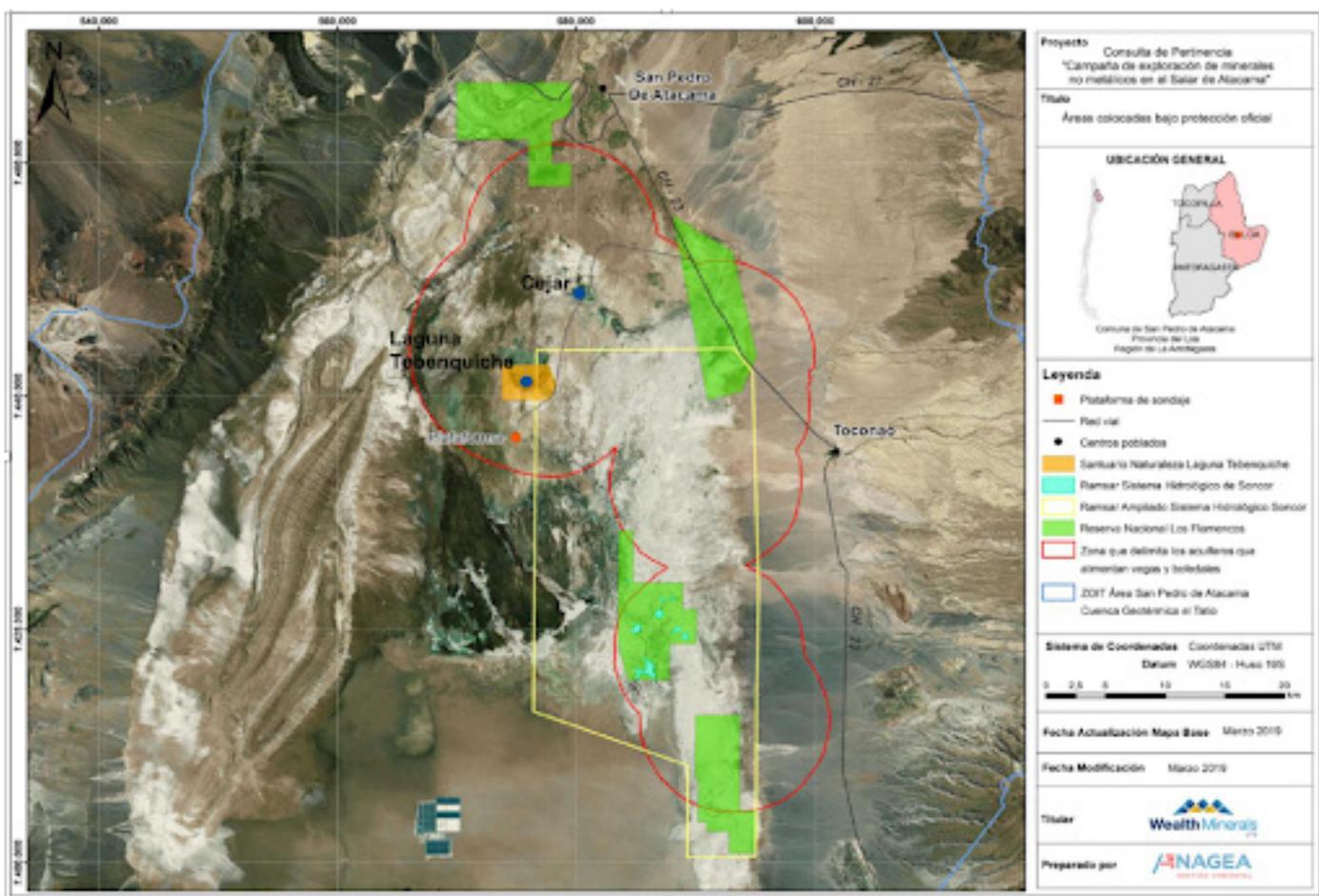
that it was not aware of “any environmental responsibility” related to the project and failed to mention the presence of indigenous communities whose rights might be violated as a result of the projected operations. In this same report, however, a budget of US\$50,000 is established for a special program focused on relations with local communities and on creating a positive corporate image in the territory.

In April 2019, WM submitted a consultation request to the Environmental Assessment Service (SEA) on whether it was necessary, or not, to have an environmental assessment of its project “Exploration campaign for non-metallic minerals in the Atacama Salt Flat”, assuring incidentally

that the project would not affect the environment or the communities. This was rebutted by the Atacameño Indigenous Community of Coyo and the Council of Atacameño Peoples (CPA), who pointed out that the project would be carried out within the territory of the Coyo Community, putting the Tebenquiche ancestral plain at risk. Therefore, they believed that an indigenous consultation process should be opened beforehand, given the probability of direct impacts of the project on the community and its members. Public agencies such as the Dirección General de Aguas (General Water Authority, DGA in Spanish) and the Corporación Nacional Forestal (National Forestry Corporation, CONAF in Spanish) raised serious objections to the project, contradicting

WM’s assertion that it would not carry out actions intended to bring groundwater to surface. The agencies also indicated that the project was likely to cause environmental impact and should enter the Environmental Impact Assessment System (SEIA).

The objections indicated that the proposed drilling platform overlapped with areas under official protection, such as aquifers that feed ecosystems of high interest –meadows and wetlands, among others. The overlapping includes the zone of tourist interest (ZOIT) of San Pedro de Atacama, the Tebenquiche Lagoon, the Soncor Hydrological System (RAMSAR site) and the Tambillo sector (Tamarugo Forest) belonging to the Los Flamencos National Reserve.⁷⁰



Map 5: Overlapping WM Drilling Platform with protection zones: protected aquifers, sanctuaries and ZOITs.

Source: WM (2019) Consulta de Pertinencia, p. 18

⁷⁰. Ord. DGA Antofagasta N°261, 23/05/2019 and Ord. CONAF Antofagasta N°42/2019, 27/05/019. All documents related to the request for relevance are available at: <https://pertinencia.sea.gob.cl/api/public/expediente/PERTI-2019-958#/>

Among other issues, all these are sensible geographical areas due to the fact that in them "thousands of wild birds feed, rest and reproduce every year, highlighting among them the three species of flamingos, which are in conservation category, as well as a forest of about 600 ha. of the Tamarugo species (*Prosopis tamarugo*), which is also with conservation problem".⁷¹

"We had already told him in the initial dialogue that we did not agree with the project and we will continue with the pertinent actions to prevent this project from being installed in the salt flat, because we know that this territory is overexploited, they take five times more water out of it than it takes in and they also intend to install it few kilometres from Laguna Tebenquiche⁷², which is a Nature Sanctuary"

(Sergio Cubillos, former president of the indigenous association Consejo de Pueblos Atacameños).⁷³ Despite this, in May 2019 the company was caught drilling without authorizations or having informed the Coyo Community of these operations. The community itself denounced what for its members would be a "possible environmental crime and usurpation occurred in our Nature Sanctuary (Laguna Tebenquiche)". Carabineros (police) and support groups from the Atacama Somos Todos (Atacama We Are All) also arrived at the site, managing to stop the operations, at least temporarily.

Disregarding the objections expressed by the communities and public agencies, in August 2019 the Regional Director of the SEA decided that the project in question

should not enter the SEIA, considering that it was not appropriate to carry out a process of indigenous consultation and that the "objects of protection" (protected aquifer, ZOIT, among others) would not be susceptible to be affected.⁷⁵ As a response against this decision, members of the Atacameño Community of Coyo filed an appeal for protection before the Court of Appeals of Antofagasta, requesting the invalidation of the SEA's decision and an order that the project must enter the SEIA due to its potential impacts, which would merit an indigenous consultation process in accordance with ILO Convention 169.

The appeal argued that the request for relevance completely disregarded the community and the ancestral and current uses of the



Photo: Protesters stop drilling near Laguna Tebenquiche (2019). Image shared on social networks by the group Atacama Somos Todos.⁷⁴

71. Sentencia Corte Suprema Rol N° 36.416-2019, 14/05/2020. Dissenting vote of Ministers Muñoz and Vivanco

72. El Mercurio de Calama (2019) <https://www.mercuriocalama.cl/impresa/2019/08/20/papel/>

73. Comunidad Atacameña de Coyo (2019). https://www.facebook.com/permalink.php?story_fbid=411378949590339&id=403703350357899_20.09.2021

74. Sitio web Atacama Somos Todos (2021) <https://atacamasomostodos.cl/>

75. SEA (2019), Resolución Exenta N° 0207/2019 de fecha 07 de agosto de 2019

territory where development is intended, especially those linked to the territory of the Tebenquiche valley “an important aquifer belonging to the Ramsar Site Soncor Hydrological System, owned by the Atacameño communities of Coyo and Solor, territories transferred free of charge by the Chilean Treasury, through its Ministry of National Assets, by means of the deed No. 549, pages 1886 to 1889, dated April 1, 2004 (...).” It was also stated that the aquifer and ecosystem that would be affected by the implementation of the Wealth Minerals project have an ancestral value, and that “this impact falls on a place of the greatest relevance for the Coyo Community because because, as expressed by Mr. Tomás de Aquino Vilca Vilca, there are ancestral uses of the Tebenquiche Lagoon: the maintenance of the tradition and identity of the Lickanantay people is strongly linked to their customs. Here, in this place, there were forage meadows, that is to say, it was used for the grazing of goats, sheep, llamas. On the other hand, the ancestral ceremonies that maintain a harmonious relationship between man and nature; ceremonies for rain, pastures for the multiplication of livestock (enfloramiento), for burnings (August 1st), for healing, for solar or lunar eclipses, among others (...). Initially we took care of it for the fodder and the flamingos and now it is also important to take care of these microbes, which for us are ‘ancestral muds’. Today we must add that this place even has become a healing centre, where we do therapies with these ancestral muds, for bone healing. Scientific studies are now discovering these bacteria that give as the ‘origin of life’.”⁷⁶

According to the testimony of an ancient inhabitant of Coyo quoted in the appeal, “From full consciousness we will

understand that water, or Puri, is the intelligence of nature, which contains basic services for human survival; this is how the ancestral man of the Atacama Desert understands it, self-educating and adapting to his reality, generating the sustainability of his habitat, being part of his genetics, of his own water. This is how your cells are formed; we are water in human form, Puri spirit of the Earth that makes me understand how sacred you are, for being the blood that waters the earth, that makes it fertile; you are the reference of the purity and identity of every living being, from the ancestral knowledge: when you are trapped in a dam, it is my humanity that is being stopped; when you are intervened in your tributaries, it is my arms and legs that will stop acting; we are one and that one is in me, being part of that collective conscience, of that science of nature; the impacts and the tendency to erase the memory of the ancestral peoples will translate into social and cultural environmental impacts.”⁷⁷

This vision contrasts with that of the mining company, who considers that there will be no impacts on water resources since “the relevance consultation is not related to groundwater extraction, and only 90 liters of brine would be extracted”.

In view of this, the members of the appellant community pointed out that “for the Atacameño people, there is only one water (the ‘puri’), and what is called “brine” is the water deposited in the center of the salt flat. About 70% of what is contained in the brine is water. For its part, the Atacama SaltFlat basin is an interconnected system of surface and groundwater run-off that feeds meadows, wetlands, lagoons and salt flats and represents the basis of balance of a deep drainage

network that gives life to oases such as Peine, Toconao, Socaire, Coyo and other communities that have ancestrally inhabited this territory (...).”⁷⁸

“We believe that one of the main values taught by our grandparents and parents has been transgressed; we talk about the need to ask for PERMISSION, an action that the company has not carried out; [they are] using private roads and enabling a NEW ROAD with schedules that generate uncertainty. It is regrettable that this is already a repeated practice on the part of the company, and even more serious that this time they do it even accompanied by the Environmental Evaluation Service. Faced with this situation, we can only ask ourselves: Why do we want to go unnoticed?” (Lady Sandón, president of the Atacameño Community of Coyo).⁷⁹

The appeal for protection was rejected by the Court of Appeals, thus accepting the stance of WM and the SEA. The community members sought to overturn this ruling by appealing to the Supreme Court, but the highest tribunal in the country upheld the decision of the Court of Appeals by a narrow margin of 3 votes to 2 on May 14, 2020. The minority vote exposed at length the contradiction, from a precautionary perspective, that emerged from the fact of disregarding the warnings of the sectoral bodies and the communities about the potential impacts that the project would generate on ecosystems, biodiversity and indigenous communities.

TRINITY PROJECT, QUISQUIRO OR LOYOQUES, AGUAS CALIENTES AND PUJSA SALT FLATS

Another project located in the San Pedro de Atacama Commune and

76. Remedy of Protection filed by Lady Sandón and others against the SEA of the Antofagasta Region and its regional director, Ramón Guajardo, case No. 3.106-2019 of the Court of Appeals of Antofagasta. p. 21.

77. Ibid.

78. Ibid., p. 26.

79. Sitio web del Consejo de Pueblos Atacameños <http://www.lickanantay.com/#!/-noticias>

which was included, until recently, in WM's brine lithium project portfolio is the so-called "Trinity Project" in the Quisquiro or Loyoques, Aguas Calientes Norte and Pujsa salt flats. All of these salt flats are included in the territorial claims of the Atacameño Community of Toconao, and there is also the fact that the Pujsa Salta Flat is located within the Los Flamencos National Reserve and is protected by the Ramsar Convention, being among the 14 priority sites of importance for the conservation of Andean flamingos in Argentina, Bolivia, Chile and Peru.⁸⁰

According to this portfolio, Wealth Minerals would have concessions covering 6,100 hectares, as reported by the company itself. However, in SERNAGEOMIN's public registry data there are no concessions of any kind on behalf of WM on the surface of these salt

flats. In WM's most recent corporate presentations (August 2021) the project is no longer included, having also been excluded from its corporate website.

Although the company states that it has sought dialogue with communities, there are growing concerns about these concessions, not only from the point of view of territorial demands but also related to the extractive process itself and the potential loss of water due to brine evaporation.

"They have their eyes on the Aguas Calientes Salt Flat. They have their eyes on Tara. They have their eyes on Quisquiro as well. (...). Wealth Minerals says that we are going to own part of the production (...). We ourselves are asking: what process is this? What process is this that is not so harmful, that

is better than SQM and that is better than Albemarle? (...). So, in fact we, several community members, outrightly said no, Wealth Minerals won't get in here. And they will never be able to get in here because they are arriving with lies about an (extractive) process that never existed." (Interview with an Atacameño community member who participated in a meeting with WM representatives, 2021).

Currently, the company continues to state through communiqués to investors that it has held continuous meetings with the indigenous peoples located in the Atacama Salt Flat area, "building trust and dialogue".⁸¹ These communiqués are in direct contradiction with the statements and actions of the Atacama institutions. On the other hand, some inhabitants of the Atacama Salt Flat continue to express their concern about



Stromatolites in Laguna Tebenquiche, Atacama Salt Flat (2015) © Ramón Morales Balcázar

⁸⁰.Servicio de información sobre Sitios Ramsar, Salar de Pujsa <https://rsis.ramsar.org/es/ris/1871?language=es>

⁸¹. Wealth Minerals (2020) Corporate Update: Continuing to Build Value <https://www.globenewswire.com/en/news-release/2020/04/01/2010065/0/en/Wealth-Minerals-Corporate-Update-Continuing-to-Build-Value.html>

the progress of these projects and the latent risk that the legal actions filed will be rejected and, as has already happened in other cases, that extractivist interests will be favored, giving priority to the already known mechanisms of economic compensation for environmental damage to the detriment of a real recognition of the rights of the people and the effective protection of ecosystems.

OLLAGÜE SALT FLAT

Another project in WM's portfolio is the so-called "Vapor Project" for lithium production in the Ollagüe Salt Flat, located in the Antofagasta Region and close to the Chilean-Bolivian border. WM has exploration concessions on part of the surface of this salt flat, which according to WM would cover a total of 6,420 hectares. The company has declared that it has already carried out drilling and probing work that would have confirmed the lithium-bearing potential of its brines.

This area is home to indigenous Quechua communities such as Ollagüe and Estación San Pedro, which develop livestock, agriculture and medicinal plant collection activities. Ollagüe has surface water rights in nearby streams and springs, whose flow, however, is marginal in contrast to the groundwater allocated for the state mining company CODELCO.⁸²

HUASCO SALT FLAT AND THE CINCO SALARES PROJECT

Until 2019 WM also included the Huasco Salt Flat in its portfolio of lithium production projects from brines. The company indicated that it had concessions covering a total of

2,800 hectares of this salt flat, located in the extreme northeast of the Tarapacá Region, which contradicts the information that appears in the Public Cadastre of Concessions, in which there are no concessions, constituted or in process, in favor of WM. Currently, the project in the Huasco Salt Flat, as well as the Trinity Project, does not appear on the corporate website or in the company's latest presentations. At least until 2017, WM's interests in the Huasco Salt Flat are included in the now defunct Cinco Salares Project, which would include concessions in the Ascotán, Piedra Parada, (Laguna) Lejía and Siglia salt flats, located in the Antofagasta and Atacama regions.⁸³

The Huasco Salt Flat is a protected site, as part of the Huasco Salt Flat National Park, and has been declared a Ramsar Site for its ecosystem, which includes lagoons, meadows and Andean wetlands. There are archaeological sites associated with the Huasco Salt Flat and its hydrological system that testify to the occupation that has taken place there for thousands of years. In the meadows and wetlands nearby, members of the Aymara people carry out traditional grazing and livestock raising activities, mainly of llamas and alpacas. Despite the above, one of the main threats to the salt flat is the extraction of water above the aquifer recharge levels, a danger associated with mining activities.⁸⁴

The Ascotán Salt Flat is related to the Quechua community of Ollagüe that lives in the Ascotán basin, which has already suffered a severe impact due to borate extraction by SQM and Quiborax, as well as to

water extraction by mining companies such as CODELCO and El Abra. Lejía Lagoon is part of a hydrological and ecological system that interconnects several lakes in the middle of the Andean high plateau and its associated fauna, including migratory birds such as parinas and flamingos.

LAGUNA VERDE

The Laguna Verde Andean salt lagoon was also part of WM's portfolio. At the time the company reported that the project concessions covered an area of 8,700 hectares. Like the Trinity Project and the salt flats included in Cinco Salares, this lagoon, located in the Atacama Region, no longer appears to be part of the range of projects that WM is seeking to develop, considering that it has been excluded from the recent update statements.

SIETE SALARES PROJECT

In 2017 WM announced the signing of a letter of agreement to acquire about 24.5% of the so-called "Siete Salares Project" in which Tianqui and Albemarle, participated with similar shares. Both did it through Talison, which holds 50%.⁸⁵ This project would cover a total area of 39,400 hectares in La Isla, Agua Amarga, Parinas, Grande, Aguilar, Piedra Parada and Maricunga salt flats. Like many of the projects in WM's portfolio, the agreements for its progress do not seem to have materialized; it has been excluded from the official platforms of the company, which only seems to maintain its interests today in the Atacama and Ollagüe salt flats.

⁸²-SERNAGEOMIN (n.d.) https://portalgeo.sernageomin.cl/Salares/SALAR_DE_OLLAGUE/FICHA_TECNICA_COMPILADA_SALAR_DE_OLLAGUE.pdf 20.09.2021

⁸³-WM (2017) Corporate Presentatrtion. <https://wealthminerals.com/wp-content/uploads/2017/06/Wealth-Minerals-Corporate-Presentation-September-2017.pdf> 19.09.2021

⁸⁴-SERNAGEOMIN (n.d.) : https://portalgeo.sernageomin.cl/Salares/SALAR_DE_HUASCO/FICHA_TECNICA_COMPILADA_SALAR_DE_HUASCO.pdf 10.09.2021

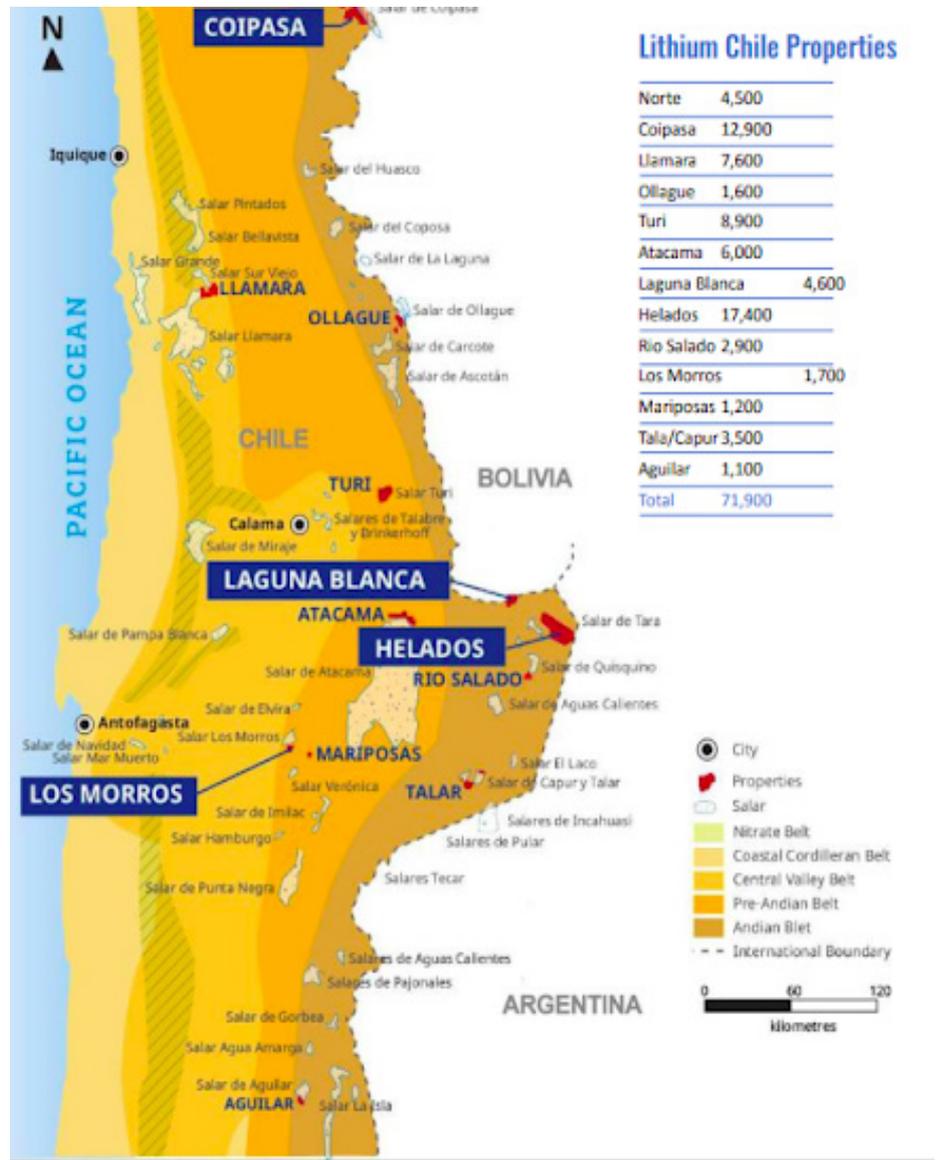
⁸⁵- WM (2017) Wealth Minerals signs letter agreement to acquire interest in seven salars lithium projects. <https://wealthminerals.com/news/wealth-signs-letter-agreement-to-acquire-interest-in-seven-salars-lithium-project-in-chile/> 01.09.2021

LITHIUM CHILE INC.

Lithium Chile Inc. is a Canadian company based in Calgary, Alberta, and traded on the Toronto Stock Exchange. It is dedicated to the exploration and development of lithium projects in Chile. On its corporate website, the company presents itself as the largest owner of lithium salt flats after the State of Chile and SQM, with a portfolio of 14 projects, covering a total of 166,150 hectares.⁸⁶

COIPASA SALT FLAT

As mentioned in previous sections of this report, Canadian mining companies also have lithium-bearing interests in the Coipasa Salt Flat, located in the Tarapacá Region, on the border with Bolivia, which makes it is a binational salt flat. Lithium Chile, in the name of Terence Walker, one of its directors, holds exploration concessions on the surface of the salt flat, which are located within the territory of the Aymara Indigenous Community of Ancovinto. In order to proceed with the exploration and drilling of brines in the Salt flat, in 2019 Walker filed a mining easement claim –still in progress– against the Community for the purpose of building roads and occupying the surface of three of its concessions, which would cover about 900 hectares. With this, the total concessions would add up to an area many times larger (17,400 according to the company).⁸⁸ The company claims to have previously obtained the approval of the Aymara communities for its exploration program, "we are delighted to have received the support of the Ancovinto Community, in Coipasa, to move forward with this project



Map 6: Lithium Chile's declared interest in Chilean salt flats. Source: Lithium Chile (2021) ⁸⁷

and are very encouraged by the continued success of our Chilean team in developing productive relationships with the local communities" (Steven Cochrane, President and CEO Lithium Chile).⁸⁹ Despite this claim, sectors of the community have been organizing themselves –even prior to the filing of the lawsuit– to prevent the mining expansion from jeopardizing traditional activities and pastoralism due to the

potential impact that such activities will have on water sources.

In their response to the lawsuit filed by the representative of Lithium Chile, the Aymara community requested its rejection, stating that its members have never had any contact with the plaintiff and that the latter have never offered to reach an agreement. The community also reaffirmed that

⁸⁶ <https://lithiumchile.ca/>

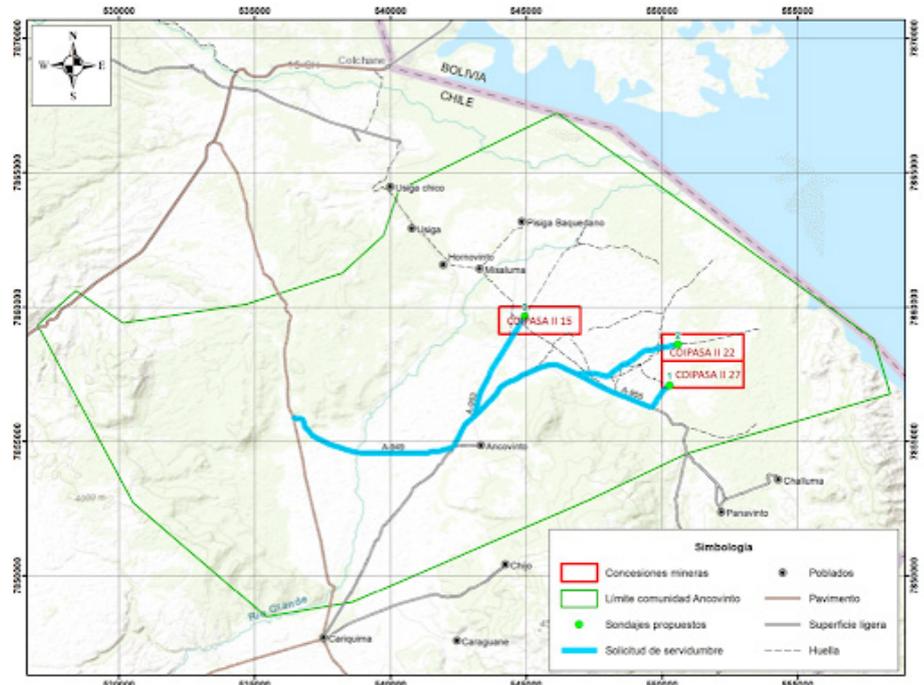
⁸⁷ Lithium Chile (2021) Fact Sheet. https://lithiumchile.ca/wp-content/uploads/2021/03/Lithium-Chile-2-page-fact-sheet_MARCH2021.pdf 20.09.2021

⁸⁸ The lawsuit is being processed before the Civil Court of Pozo Almonte under the case number C-218-2019; Walker with the Aymara Indigenous Community of Ancovinto.

⁸⁹ Lithium Chile (2019) Lithium Chile announces community approval. <https://lithiumchile.ca/news/lithium-chile-announces-community-approval-for-their-exploration-program-on-their-salar-de-coipasa-property/>

it was the owner of the property, which corresponds to indigenous ancestral lands on which the indigenous ethnic group cultivates quinoa, and that the constitution of the requested easements “would have serious consequences on the life of the indigenous community, disruption of their community life, serious environmental deterioration, and it is necessary to protect the indigenous community and the territory in which they live, as required by the national general interest, it being understood that indigenous lands are subject to limitations that imply a positive discrimination derived from their social function”.⁹⁰

In a presentation jointly made with OPSAL during the Social Summit for Climate Action in 2019, María Gómez, president of the Ancovinto Community, exposed how the increasingly frequent practice of negotiations between mining companies and indigenous peoples is causing divisions and internal disputes, deeply damaging the social fabric of territories abandoned by the State and its agencies. In theory, indigenous communities recognized by the State of Chile have legal advice from CONADI (National Indigenous Development Corporation), however, the quality and timeliness of this service is frequently criticized by leaders of peoples affected by extractivism, and Ancovinto is no exception. Regarding the current status of the proceedings initiated by the Canadian mining company against the Aymara community, María says: “We don't know at present what is the course of this situation. The only thing I know is that I have received summons (...) –I went to the court and they told me that I have to be present at preparatory proceedings on the 20th, but preparatory proceedings for what? I have



Map 7: Easements Areas Claimed by Lithium Chile and Aymara Indigenous Community Property Source: Complaint for the constitution of mining servitude, Case C-218-2019.

no idea. I think it could be related to the mining company that reactivated the case, I don't know. (...) CONADI is nothing more than a lawyer (...) I am really overwhelmed by this”.

The case of Lithium Chile and the Ancovinto Community clearly illustrates how the absence of the State and the lack of access to information and binding participation may cause social fractures, stress and exhaustion of the leaders who decide to defend their territory even from the exploration phase. These consequences are ignored in the Environmental Impact Studies and contribute to a climate of growing tensions, deliberately hidden from authorities and shareholders. For María Gómez, what is at stake is not the economic benefits that the mining company could deliver to the communities that inhabit the territory of her grandparents, but rather

a way of life and a relationship with nature that contrasts radically with the extractivist logic that the Canadian company wants to impose by prosecuting the community. This is something which makes us reflect on the logics that currently dominate the fight against climate change. “Industrial agriculture in other sectors sows and then reseeds, reseeds, reseeds, reseeds and takes all the minerals out of the land. On the other hand, the indigenous Aymara occupies –for example, he sows this year and receives– he harvests his crop. Another year, he occupies another little side, and that [former] land he lets it rest (...). The indigenous Aymara do not deplete resources. That is why it is important that those who are working on climate change should adhere to an ancestral indigenous Aymara, because they –we do not exploit the land in this way, disproportionately”.

90. Answer to the Complaint on the Constitution of Mining Easement, case Rol C-218-2019 of the Civil Court of Pozo Almonte. p. 05.

In addition, the leader and defender of the Coipasa Salt Flat has her own vision of electromobility: “They (the automakers) are focused on selling, selling, selling, selling. But they do not consider the consequences for the environment, for the planet, because –just imagine– we are saturated in the whole world with so many vehicles. What is to become of the vehicles that are no longer useful? even if they are electric, even if they run on gas, even if they run on oil, even if they run on gasoline, where do they go? They don’t care for that, afterwards. They care about making and selling the product they are creating and making more money, more money. But in the end, who are they hurting? They don’t look at that. Why so much ambition? That is what I ask today”.

Finally, it seems relevant to mention that the territories affected by the expansion of lithium mining are particularly vulnerable to climate change, which according to María “has affected a lot because it doesn’t rain as it used to. It does not rain. So, the amount of quinoa crops is dropping. Bother! The few animals... so little left for them to eat... and irrigation... because if there is no water, where are they going to get water from? And for the human being itself, for us. Because there in Cariquima, in the meetings that are held, they always say “water, water”. The mining company (metal) has also affected them so much, because it is the mine that is drying up the water.”

The absence of adequate public policies and the cumulative and aggregate effects of various mining

projects only exacerbate the condition of marginalization suffered by peoples whose livelihoods are threatened and who do not have the means to cope with an increasingly complex scenario.

LOS HELADOS PROJECT: TARA SALT FLAT - HELADA LAGOON

Another of the projects in Lithium Chile’s portfolio is related to the exploration of brines in the area located between the Tara Salt Flat and Helada Lagoon, in the San Pedro de Atacama district, near the border with Argentina. In this area there are exploration concessions, both constituted and in process, in the name of Terence Walker and Minera Kairos, the Chilean subsidiary of Lithium Chile. Most of the exploration concessions linked to the project are in the area occupied by the Tara and the Aguas Calientes 1 salt flats, within Los Flamencos National Reserve, and in areas with water rights held by the same Atacameño indigenous communities that are in conflict with the Canadian company Wealth Minerals. All of these sensitive locations would be potentially affected by the extraction of groundwater required for lithium mining activities, especially those dedicated to traditional llama ranching. It is all worth mentioning the potential destruction of the archaeological heritage present in the entire area of the salt flats and Andean wetlands.

LAGUNA BLANCA

The so-called Laguna Blanca

[White Lagoon] is a body of water located on the Chilean-Argentinian border, in the Antofagasta region, rich in lithium and caesium, a mineral whose demand and prices have increased mainly due to its use in 5G mobile networks. On the Chilean side there are 23 exploration concessions constituted in the name of Terence Walker and Minera Kairos, covering an area of 5,200 hectares. At the beginning of 2021, exploration and sampling campaigns were restarted from the accesses of the Argentinian sector.⁹¹ The results of these activities are still pending.⁹² The progress of this project during the pandemic is a reflection of how the Chilean government has given guarantees to mining extractivism rather than to the communities themselves. The inhabitants of these Andean territories have seen not only their health and economy diminished, but also their access to adequate information and participation with respect to the operations of transnationals such as Lithium Chile. Despite the fact that the San Pedro de Atacama commune is at a virtual standstill due to the pandemic, in April 2021 the company announced that “Lithium Chile’s ability to put its mining equipment on the ground at Laguna Blanca reflects the easing of the restrictions that have been in place in Chile due to COVID-19 since early 2021. The easing of these restrictions will allow Lithium Chile to advance its other lithium projects as well”.⁹³

OTHER PROPERTIES AND PROJECTS

In the March 2021 fact sheet available on its corporate website,

⁹¹-MiningPress (2021) Lithium Chile explora mas en Laguna Blanca. <http://miningpress.com/nota/334831/lithium-chile-explora-mas-en-laguna-blanca.01.09.2021>

⁹²-Lithium Chile (2021). Laguna Blanca Executive Summary. <https://lithiumchile.ca/wp-content/uploads/2021/09/Laguna-Blanca-2021-Exec-Summary-.pdf>

⁹³. Redimin (2021) Lithium Chile expands exploration program at his Laguna Blanca property. <https://www.redimin.cl/lithium-chile-amplia-programa-de-exploracion-en-su-propiedad-de-litio-cesio-laguna-blanca/>



Photo: San Pedro Valley, © Ramón Morales Balcázar

Lithium Chile also states that it has mining properties in the Llamara, Ollagüe, Turi, Atacama, Tara, Los Morros, Talar and Aguilar salt flats, among others, indicating that it has received authorization from the communities to drill in three of them.⁹⁴ Most of them have exploration concessions established or in process in the name of Terrence Walker or Minera Kairos. These salt flats and their hydrological systems are located in Quechua, Aymara, Atacameño or Lickanantay and Colla territories. These are sensitive ecosystems that are already affected by mining activity, and consequently, the advance of these initiatives has the potential to increase the socio-environmental damage in the territories where they are located.

In the Llamara Salt Flat, located in the Pampa del Tamarugal National Reserve, in the Tarapacá Region, water levels have dropped drastically

ly due to the extraction of iodine by SQM's Pampa Hermosa project, affecting the 'puquios' extremophile microbial ecosystems vital for the conservation of biodiversity, biota and associated ecosystem services. Some members of the Aymara communities have argued that this will lead to the disappearance of the Quillagua oasis and the subsequent forced migration. In the Turi Salt Flat sector –where in 2019 Lithium Chile would have obtained the authorization of the indigenous communities to drill– it has been denounced since the 1980s that the extraction of water for mining (CO-DELCO) is causing the drying up of its meadows and affecting natural species and subsistence practices of indigenous communities in the sector, which, as in Llamara, are being forced to migrate.⁹⁵ Finally, in the Atacama and Ollagüe salt flats, Lithium Chile's interests will further saturate the extractivist pressure affecting unique waters-

heds and ecosystems, recognized as nature reserves and home to Andean wetlands of international importance for the maintenance of biodiversity and unique traditional practices, whose sustainability is now seriously threatened.

THE CASE OF THE FAILED ENERGY METALS INC. PROJECT IN THE ATACAMA SALT FLAT

LiCo Energy Metals Inc. (now Fuse Cobalt Inc.) is a Canadian company based in Vancouver, British Columbia and traded on the Toronto Stock Exchange, engaged in the exploration of high-value metals required for the manufacture of lithium-ion batteries.

Until 2017, this company sought to develop exploration activities and an eventual future mining

⁹⁴. Lithium Chile (2021) Fact Sheet. https://lithiumchile.ca/wp-content/uploads/2021/03/Lithium-Chile-2-page-fact-sheet_MARCH2021.pdf

⁹⁵. Aldunate, C (1985) Desecación de las Vegas de Turi. *Chungará*, 14: 135-139. http://www.chungara.cl/Vols/1985/Vol14/Desecacion_de_las_Vegas_de_Turi.pdf

exploitation in the Atacama Salt Flat, through the so-called “Purikuta Project”. Like WM, LiCo’s intention was to implement its project in the northern sector of the salt flat, but in an area very close to the Chaxa Lagoon and therefore to the Soncor Hydrological System, which is part of the Los Flamencos National Reserve and the Ramsar Site of the same name. The lagoon bodies that are formed thanks to the waters that descend underground from the Andes Mountains are habitat and breeding sites for various migratory and endemic species.

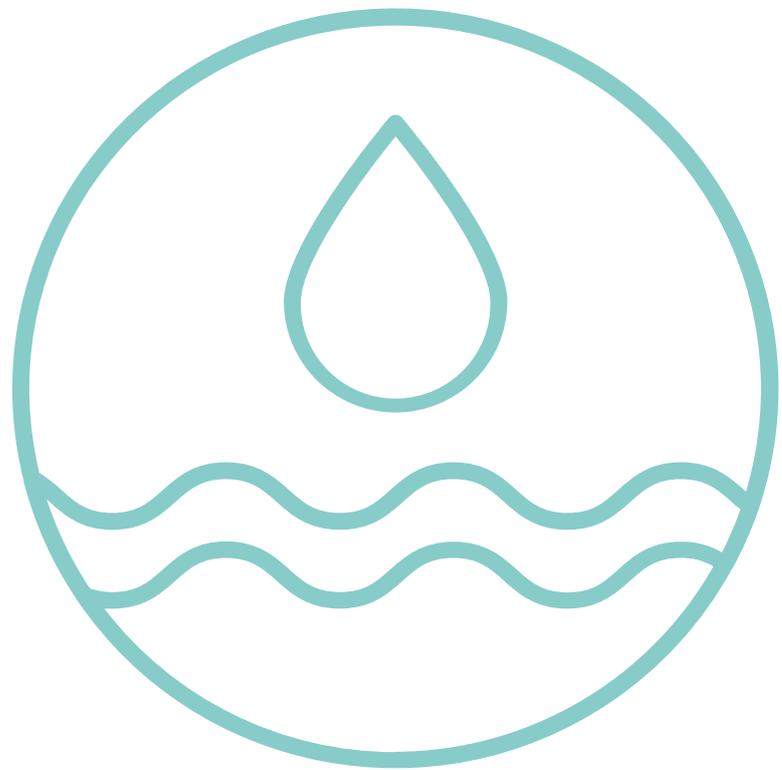
In 2017, the company (through its contractors) sought to drill for brine exploration in the sector, an initiative that was strongly resisted by members of the Atacameño Indigenous Community of Toconao and the Indigenous Association of Irrigators and Farmers of Quebrada de Soncor. Rudecindo Espíndola Araya, a member of both indigenous organizations and also a participant at OPSAL, recounts the events that led the Canadian company to withdraw from the project: “We radioed a warning, and then a complete announcement began to be transmitted on Radio Toconao, saying that these machines were there, and we left. And we arrived at the road that is perpendicular to where the platforms were going to drill, and indeed the platforms were already installed with their drilling angles (...). And there we arrived with flags. (...) and we spoke with the company’s drilling manager, who was there at the time (...). Well, we explained to him that under no circumstance! that he couldn’t do such a thing, and he said that they were told that there must be a communication problem, because

they were authorized by CONAF (...) But how? why did CONAF authorize it? And meanwhile we stood in front of the trucks so that they wouldn’t drill (...). The carabineros arrived and tried to get us out; we told them no, that we were not going to move. In fact, more people from the town were on their way here. And from there some operators came down and said that they were leaving because (...) they did not want to have conflicts with the communities”. This situation seems to have prompted the community into filing legal actions against the mining company, a measure that resulted in a halt to exploration and drilling work and a subsequent abandonment of the project, which, incidentally, never had its own mining concessions.⁹⁶

The community’s arguments include the ecosystems, cultural and spiritual value of the areas that the company intended to intervene. “Why are we reacting? Because we know how

important it is in terms of the environment, life, flora, the water system and more than that, for us, as for Toconao and Soncor, it is actually a close issue because spiritually, it also causes damages. They damage the purpose of those places, either near Purickuta or on the way to Chaxa, Burro Muerto, Barros Negros, Puilar, which were used for grazing. These are ancestral occupations and there are archaeological sites. Those same places were used to fetch straw. Or they are places where our grandmothers or grandfathers performed rituals to the water.”

Regarding Canada’s electromobility market incentive policies and the consequences of the corporate energy transition, Rudecindo is emphatic in pointing out the importance of making the consumers of lithium-containing products aware of the complex implications of the expansion of lithium mining in their territory: “I think it is important that



⁹⁶ Mining.COM (2019) LiCo Energy Metals withdraws from Chilean lithium project facing community opposition. <https://www.mining.com/vancouver-miner-withdraws-chilean-lithium-project-due-community-opposition/20.09.2021>



Map 8: Flow of Canadian Lithium Projects/Interests in Chile and its salt flats (active and non-active). Own elaboration

people in Canada who are going to buy or receive these subsidies (for the purchase of electric cars), get informed (...) How are they going to get that electric car? We have to

mention to people, inform them, that this is obtained through a process of extractivism and not only water extractivism, but also environmental, historical, geopolitical

extractivism, which involves many things. I think it is important to inform people in Canada (...)'.

Conclusions

The implementation of multi-lateral climate change mitigation policies emanating from the Paris Agreements is, so far, the most ambitious of the planet's climate agendas. However, the corporate energy transition model that dominates climate action reproduces dynamics of dispossession and an extractivist export model that exacerbates conditions of socio-environmental vulnerability in territories of the Global South, where most of the minerals required for the advancement of low and zero emission technologies, such as lithium, are located. Currently, lithium mining operations in Chile's salt flats are controlled by two companies, Albemarle and SQM, both of which are being questioned by civil society due to the scientific uncertainties and socio-environmental injustices surrounding these activities in the Atacama Salt

Flat. In 2020, two new lithium projects were approved, expanding 'the industry' into the Maricunga Salt Flat and triggering a series of legal actions by Indigenous and non-Indigenous communities. These parties are alleging a series of irregularities and illegalities in the process of the environmental assessments and approvals.

Added to this is the recent international bidding process launched in October 2021 by the Ministry of Mining to grant exploration and exploitation licences for 400,000 tons of metallic lithium, which puts all Chilean salt flats at potential risk.⁹⁷ Civil society organizations such as OPSAL and members of the drafting commission of the new Chilean Constitution, have expressed their strong objections to the call made by the government, which compromises and will cause irre-

parable damage to unique ecosystems that are the water reserves of the altiplano, which is completely irrational in the current context of climate crisis.⁹⁸

Canada and its global mining companies are wasting no time in capitalizing on the context of climate crisis, made even more complex by the arrival of the pandemic to act in the interests of their extractivist interests. To this end, the Canadian Minerals and Metals Plan operates as an enabling mechanism to expand mining and other extractive activities inside and outside of Canada, under the slogan of sustainable mining that respects human rights and the environment and will provide the metals required for the energy transition. On the other hand, the PDAC international conference is a unique event, not only due to its size but

⁹⁷ Ministerio de Minería de Chile (2021) Decreto N°23 publicado el 13 de octubre de 2021 <https://www.bcn.cl/leychile/navegar?idNorma=1166331>

⁹⁸ El Mostrador (2021) Ecoconstituyentes rechazan convocatoria del gobierno. <https://www.elmostrador.cl/dia/2021/10/21/ecoconstituyentes-rechazan-convocatoria-del-gobierno-para-licitar-litio-compromete-la-preservacion-de-ecosistemas-unicos/>



Espíndola Toroco family planting a family farm in Quebrada de Soncor (2021). Photo: © Ramón Morales Balcázar

also because it brings together a large number of investors and government representatives from countries such as Chile, who go out to promote investment in activities linked to the extraction and sale of minerals to the highest bidder. These advocating and supporting actions deliberately ignore or hide the profound and irreparable consequences that development based on extraction generates in indigenous and rural territories that have been historically marginalized.

Canadian mining in Chile has a history of conflicts related to socio-environmental impacts and corruption. Many of the most emblematic cases involving Canadian mining companies have occurred in highly sensitive areas where not only the communities, but also several complex and fragile ecosystems composed of glaciers, rivers

and Andean wetlands have been affected. Lithium projects in salt flats reproduce the same dynamics known since colonial times and often overlap with other mineral projects, creating complex scenarios for the people and the defenders of the territories. Mining extractivism jeopardizes not only the conservation of ecosystems that constitute the source of community livelihoods, biodiversity and climate regulation, but also the projects themselves, which face popular opposition and, therefore, may become materially unfeasible.

Canadian investors in lithium are trying to establish themselves in Chile despite local tensions due to the expansion of extractivism, highlighted by the situation in the Atacama, Maricunga and Coipasa salt flats. This process is directly supported by governments, organizations and networks that seek

to favor mining interests through various mechanisms. At the same time, new strategies to confront this scenario are emerging from the affected peoples and defenders of the salt flats, in cooperation with activists and researchers in Chile and Canada who are committed to a diverse view of the crisis and a profound critique of extractivism as a manifestation of a model of peripheralization, externalization and global accumulation. These solidarity networks signify new and necessary forms of resistance to think about transitions and transformations beyond the extractivism that is at the heart of the hegemonic colonial universalist vision, demanding the pluriversity of alternatives and possible futures.

December 2021