

Case study:

Chile's new lithium strategy: A Just Transition for the lithium sector?

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Context

Lithium is crucial for the transition to a greener economy as it is a key component of batteries which will be used to replace internal combustion engines and as energy storage to balance energy availability from intermittent energy sources such as wind and solar. Chile is the second largest lithium producer in the world, after China, producing around 30 percent of all production¹. In Chile, lithium extraction and production are carried out by two companies: Chilean-owned SQM and American-owned

Albemarle, both of whom have been producing lithium since the 1990s. Around 4600 workers are employed directly Chile's lithium industry² in the extraction and concentration of lithium brine. The remote nature of the extraction sites has led to the industry functioning like an enclave, i.e. it extracts resources which are destined for export and generates few formal links into the wider local economy. Due to a highly beneficial tax and regulatory structure the companies involved make huge profits³. In 2022 the government collected USD

¹ Geología y Minería, *ANUARIO DE LA MINERÍA DE CHILE* (2022), https://www.sernageomin.cl/pdf/Anuario_2022_310523.pdf; Telye Yurisch Toledo et al., *Diagnostic Report on Corruption in the Chilean Lithium Industry* (2024), https://www.terram.cl/wp-content/uploads/2024/07/Diagnostic-Report-on-Corruption-Lithium-Industry_Terram.pdf.

² Diario Financiero, 'Litio: Pacheco Adelanta Que 3.500 Trabajadores de SQM Pasarán a Empresa Conjunta Con Codelco | Diario Financiero', 2024, <https://www.df.cl/empresas/mineria/litio-pacheco-adelanta-que-3-500-trabajadores-de-sqm-pasaran-a-empresa>.

³ Telye Yurisch Toledo et al., *Diagnostic Report on Corruption in the Chilean Lithium Industry* (2024), https://www.terram.cl/wp-content/uploads/2024/07/Diagnostic-Report-on-Corruption-Lithium-Industry_Terram.pdf.

5.4 billion in tax revenues and lithium contributed 1.8% of the country's GDP⁴

The Atacama salt flat is an oasis in one of the driest deserts on earth. It is home to rare plants, animals and microorganisms which live in and around the salty surface of lakes as well as being home to a number of ancient indigenous communities who have learnt how to thrive in an extremely inhospitable climate. During production lithium brine is pumped from underground aquifers and left in large football field sized ponds to evaporate. It is pumped between different ponds as it becomes more concentrated and various impurities are precipitated out by the addition of different chemicals. This concentrated brine is then delivered by tanker to processing plants near the city of Antofagasta where the brine is converted into lithium carbonate. Chile's lithium deposits are extremely high quality due to the high concentrations of lithium particles held within them⁵. Further, because the main energy input into the production process is solar radiation, i.e. sunlight, it is amongst the cheapest lithium that can be produced anywhere in the world. To allow the world to limit warming to 2 degrees it has been suggested that global lithium production needs to grow 40-fold by 2040⁶.

Conflicts with stakeholders

Unfortunately, this current method of lithium production, i.e., pumping large volumes of lithium

brine to the surface is affecting the complex, interconnected system of freshwater aquifers which nourish life, leading to reductions water availability in the extremely dry desert around the mines⁷. Both SQM and Albemarle have deviated from their environmental obligations and agreements and extracted more than their permits permit leading to conflicts with local communities about the distribution of costs and benefits related to the lithium extraction⁸. To help prevent the emergence of more disruptive forms of conflict, many members of local indigenous communities receive direct cash payments from the mining companies and certain hiring quotas exist to ensure local people benefit from jobs at the mines. Between 2018 and 2022 the communities of the Salar de Atacama received \$USD 86 million from the two lithium mining companies⁹ however, our interviews revealed that not all community members support mining activities, and some members resent being bribed to accept the loss of their culture and heritage as farming becomes increasingly difficult as water resources become scarcer¹⁰.

Further, our interviews revealed that working conditions in the lithium sector are much worse than in comparable sectors such as the copper industry. Union leaders have historically been paid off (bribed) with the aim of avoiding organising which would raise wages and benefits for all those integrated into the

⁴ Rafael Poveda Bonilla and Mayo De, *Ingresos fiscales por litio en Chile* (2024), https://resourcegovernance.org/sites/default/files/2024-05/NRGI_Ingresos%20fiscales%20litio%20Chile.pdf.

⁵ Gobierno de Chile, 'Estrategia Nacional Del Litio', 2023, https://s3.amazonaws.com/gobcl-prod/public_files/Campa%C3%B1as/Litio-por-Chile/Estrategia-Nacional-del-litio-ES_14062023_2003.pdf.

⁶ *The Role of Critical Minerals in Clean Energy Transitions* (2022), <https://iea.blob.core.windows.net/assets/ffd2a83b-8c30-4e9d-980a-52b6d9a86fdc/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>.

⁷ Bárbara Jerez et al., 'Lithium Extractivism and Water Injustices in the Salar de Atacama, Chile: The Colonial Shadow of Green Electromobility', *Political Geography* 87 (May 2021): 102382, <https://doi.org/10.1016/j.polgeo.2021.102382>; Mirko van Pampus et al., 'Uncertainties in the Debate on the Environmental Impact of Lithium Brine Extraction in the Salar de Atacama, Chile', *Evolving Earth* 1 (December 2023): 100024, <https://doi.org/10.1016/j.eve.2023.100024>.

⁸ *Explotación de litio en Chile: Estado renueva contrato a empresa infractora ambiental | Observatorio de Conflictos Mineros de América Latina*, 19 November 2019, <https://www.ocmal.org/explotacion-de-litio-en-chile-estado-renueva-contrato-a-empresa-infractora-ambiental/>.

⁹ Bonilla and De, *Ingresos fiscales por litio en Chile*.

¹⁰ Jerez et al., 'Lithium Extractivism and Water Injustices in the Salar de Atacama, Chile'.

organisation¹¹. Both SQM and Albemarle are known to be extremely corrupt and have also bribed politicians to secure contracts and avoid changes to tax which would reduce their profits¹². In 2017 SQM was fined \$15 million for bribing Chilean politicians¹³ and it has also been sanctioned by the supreme court for failure to respect workers' rights to collective bargaining¹⁴. Albemarle has been sued, also \$15 million, for underpayment of royalties¹⁵ and sanctioned by the labour directorate for unfair practices related to the 2021 strike¹⁶.

The labour movement and proposals for change

Proposals to reduce the environmental impact and improve the governance of the Chilean lithium industry have circulated since at least 2014. The National Lithium Commission took place under Michelle Bachelet's government, (2014-2018) leading to the publication of the report *Lithium: A source of energy and an opportunity for Chile* in 2016¹⁷ which proposed greater government involvement in the lithium industry and more sustainable environmental governance of the salt flats. That year, a group of labour organisations and other social actors formed the Lithium for Chile Movement to promote the policy

recommendations of the Lithium Commission. Dissemination campaigns were carried out in trade unions, universities and neighbourhood councils¹⁸. In 2018 the group, together with the *Central Unitarios de Trabajadores* (CUT), the main nationally representative labour organisation, organised a protest to contest an agreement made between Corfo, the Chilean economic development agency, and SQM, on the grounds that the state should not be awarding highly lucrative lithium contracts to companies that still have active legal disputes and have received international fines for corruption¹⁹. This action was unsuccessful, and the contract went ahead. In 2022 the group mobilised again to oppose the awarding of a contract to Chinese company BYD during the final 2 months of Sebastián Piñera's government as it was suspected that this agreement could serve to block the nationalisation plans which were part of the incoming government's manifesto promises. This campaign was supported by elected members of the Communist Party and was successful and in January 2022 the Chilean courts suspended the licence²⁰.

In 2023, Gabriel Boric's government published the National Lithium Strategy²¹ which aimed to 'overcome the extractivist mentality by promoting technological

¹¹ IndustriALL, 'Union Takes Legal Action against Anti-Union SQM', IndustriALL, 3 February 2015, <https://www.industriall-union.org/union-takes-legal-action-against-anti-union-sqm>.

¹² Yurisch Toledo et al., *Diagnostic Report on Corruption in the Chilean Lithium Industry*.

¹³ United States Department of Justice, 'Chilean Chemicals and Mining Company Agrees to Pay More Than \$15 Million to Resolve Foreign Corrupt Practices Act Charges', 13 January 2017, <https://www.justice.gov/archives/opa/pr/chilean-chemicals-and-mining-company-agrees-pay-more-15-million-resolve-foreign-corrupt>.

¹⁴ IndustriALL, 'Union Takes Legal Action against Anti-Union SQM'.

¹⁵ mining.com, 'Chile Files Arbitration Suit against Albemarle over Lithium Royalties', MINING.COM, 2021, <https://www.mining.com/web/chile-files-arbitration-suit-against-albemarle-over-lithium-royalties-newspaper/>.

¹⁶ INDUSTRIAL CHILE, 'Conoce la historia del histórico triunfo de las y los trabajadores de Albermale', *INDUSTRIAL CHILE*, 2021, <https://industrialchile.cl/cl/conoce-la-historia-del-historico-triunfo-de-las-y-los-trabajadores-de-albermale/>.

¹⁷ Ministerio de Minería, *Comisión Nacional Del Litio: Informe Final* (2016), https://www.ciperchile.cl/pdfs/2015/06/sqm/INFORME_COMISION_LITIO_FINAL.pdf.

¹⁸ INDUSTRIAL CHILE CONSTRAMET, '¿Por qué es necesario defender el Litio?', *INDUSTRIAL CHILE*, 2022, <https://industrialchile.cl/cl/por-que-es-necesario-defender-el-litio/>.

¹⁹ America Economía, 'Organizaciones se oponen a acuerdo entre chilena Corfo con SQM para explotación del Litio', *AméricaEconomía*, 2018, <http://www.americaeconomia.com/negocios-industrias/organizaciones-se-oponen-acuerdo-entre-chilena-corfo-con-sqm-para-explotacion>.

²⁰ Francisca Valencia, 'Movimiento El litio para Chile se manifiesta contra licitación y denuncia incumplimiento en tratado anterior', *El Ciudadano*, 14 January 2022, <https://www.elciudadano.com/chile/movimiento-el-litio-para-chile-se-manifiesta-contra-licitacion-y-denuncia-incumplimiento-en-tratado-anterior/01/14/>.

²¹ Gobierno de Chile, 'Estrategia Nacional Del Litio'.

and supply chain development with local companies, as well as more sophisticated business activities that generate productive employment’ (Gobierno de Chile, 2023, p.13). The new Lithium Strategy was based on the recommendations of the 2016 Lithium Commission. Labour actors interviewed feel they were instrumental achieving this policy change which some described as the most significant shift in Chilean industrial policy since the return of democracy in 1990.

Chile’s new National Lithium Strategy

The main components of Chile’s new lithium strategy are the creation of a National Lithium Company which will become a majority stakeholder in the two lithium producing companies currently active, a Public Lithium and Salt Flat Research Institute which will conduct research into the hydrogeology, physicochemical properties, flora and fauna in the area, as well as how the communities live and the specificities of the local economy, a Protected Flats Network with 30 percent of the country’s salt flats protected completely from lithium exploitation and the establishment of a Strategic Committee on Lithium and Salt Flats to oversee the implementation of the strategy.

The part nationalisation of the sector means an agreement has been signed between the National Copper Corporation of Chile (CODELCO) and SQM in which CODELCO will hold of 50% plus one shares in the company. This agreement has allowed SQM to extend their lease contract which was due to expire in 2030 until 2060. Ownership transition will take place between 2025 and 2030.

This change to the ownership structure will give the state improved access to the benefits of the upcoming lithium boom. It also means that lithium workers are likely to be integrated into the CODELCO copper workers union, which is amongst most powerful in the country, potentially significantly increasing their bargaining power, wages and other employment-related benefits.

As a result of the strategy, a number of new agreements between state-owned mining companies (CODELCO and Enami) and private actors with expertise in lithium and lithium compound production have been signed. CODELCO has also taken steps towards beginning operations in the Salar de Maricunga by acquiring the Salar Blanco project in Pedernales. Enami, will take on the Salares Altos Andinos in the Atacama region. In these latter two projects public-private alliances are likely to be put in place once the exploration stage is completed²². Private companies will also be able to bid for contracts to develop additional smaller/less promising salt flats on their own²³

The new lithium strategy is viewed by the government as ‘an opportunity to generate diverse goods and services, supply chains that will promote the development of technologies and innovation (upstream or downstream), and other value-added activities in the supply chain, including sophisticated business operations and/or scientific activities’ (Gobierno de Chile, 2023, p.11).

In 2022, the government invited tenders for investment in value-added lithium products in Chile in exchange for quotas of lithium at preferential prices. It subsequently signed two contracts, one was with BYD Chile SpA a subsidiary of the Chinese owned BYD who planned to invest a minimum of US\$290

²² Gobierno de Chile, ‘Chile avanza con litio – Gob.cl’, Gobierno de Chile, 2024, <https://www.gob.cl/chileavanzaconlitio/>.

²³ Gobierno de Chile, ‘Empresas presentan interés para desarrollar 36 proyectos de litio en Chile – Gob.cl’, Gobierno de Chile, accessed 11 March 2025, <https://www.gob.cl/noticias/litio-empresas-presentan-interes-desarrollar-36-proyectos/>.

million in a plant designed to produce 50,000 tonnes a year of lithium iron phosphate (LiFePO₄) type cathode material using lithium carbonate as an input material. It was hoped that plant would be operational by 2025, and the investment phase was expected to generate 500 jobs. A second company selected was China Yongqing Technology Co. Ltd, which planned to invest US\$ 233 million which was expected to deliver 668 jobs. Both companies committed to recruiting 90 percent Chilean workers and sending professionals on academic training programs in China for 2-6 months durations²⁴.

However, in 2025 both projects fell through, in part due to a fall in the price of lithium²⁵. The importance of lithium for enabling a transition away from fossil fuels means that both nation states and individual companies are manoeuvring to secure access long term access to the mineral. For example, the EU signed a trade deal with the country in 2022 which it hopes will facilitate access to the mineral²⁶.

Ongoing challenges in the sector

However, despite the important advances ushered in by the new lithium strategy, the document has been criticised by indigenous and labour actors who do not feel they were adequately consulted about the plans which they claim were rushed through without proper scrutiny. Corfo only allowed 100 working days to conclude the indigenous consultation process²⁷. Also,

actors from the Lithium for Chile Movement are disappointed that the company was only part nationalised, and that the government chose to enter into a contract with SQM which has such a “horrificing” history of corruption and environmental and labour abuses. (The company is especially unpopular as a key actor/owner in it is the son-in-law of Pinochet Ponce Lerou.)²⁸ Further, questions remain over whether the plan to protect 30 percent of the salt flat’s area will prevent their drying out considering the interconnectedness of the underground hydrology in the area.

The new lithium strategy is an initiative which has been actively supported by labour actors, but which is being driven by the state. It can be construed as a Just Transition initiative as it intends to ensure that the expansion of the industry as a result of climate change delivers wider benefits than just profits for private companies and starts to address fundamental injustices within the Chilean economy. However, although the planned changes are likely to impact (potentially positively) on workers in the lithium sector, this is never explicitly discussed within the document and seems to be an unintended consequence rather than direct objective of the strategy. Instead, the benefits are framed as relating to a reduced reliance of raw material extraction due to the plans to produce value added products with lithium, reduced environmental damages to the salt

²⁴ CORFO, ‘CORFO - Corporación de Fomento de La Producción’, 2023,

https://www.corfo.cl/sites/cpp/sala_de_prensa/nacional/18_04_2023_byd_litio; MInisterio de Economía, Fomento and Turismo, ‘Gobierno anuncia en China segunda empresa seleccionada como productor especializado de litio’, Ministerio de Economía, Fomento y Turismo, 16 October 2023, <https://www.economia.gob.cl/2023/10/16/gobierno-anuncia-en-china-segunda-empresa-seleccionada-como-productor-especializado-de-litio.htm>.

²⁵ Javiera Pizzoleo, ‘Cochilco: Superávit del litio se mantendrá en 2024 y 2025’, Reporte Minero | El portal de minería en Chile, 2024, <https://www.reporteminero.cl/noticia/noticias/2024/08/superavit-litio-mantendra-2024-2025>; Cristian Recabarren Ortiz, ‘Chile avanza en la Estrategia Nacional del Litio a pesar de retiros de inversión china: nuevos proyectos y alianzas prometen impulsar la producción - Revista Minera’, Revista Minera, 8 May 2025, <https://revistaminera.cl/industria-minera/chile-avanza-en-la-estrategia-nacional-del-litio-a-pesar-de-retiros-de-inversion-china-nuevos-proyectos-y-alianzas-prometen-impulsar-la-produccion/>.

²⁶ Andy Bounds, ‘EU Seals Chile Trade Deal That Will Improve Bloc’s Access to Key Minerals’, EU Trade, *Financial Times*, 9 December 2022, <https://www.ft.com/content/23d18f32-d011-4466-bb0e-153c38ed54e6>.

²⁷ Terram, *Corfo propone un plazo de 100 días hábiles para desarrollar la Consulta Indígena por el litio - Fundación Terram*, 2024, <https://www.terram.cl/corfo-propone-un-plazo-de-100-dias-habiles-para-desarrollar-la-consulta-indigena-por-el-litio/>.

²⁸ ‘El gran fiasco del acuerdo entre Codelco y SQM’, *INDUSTRIAL CHILE*, n.d., accessed 26 February 2025, <https://industrialchile.cl/cl/el-gran-fiasco-del-acuerdo-entre-codelco-y-sqm/>.

flats due to technology changes and better involvement of local indigenous communities and Chilean citizens in decision making about developments in the area.

The implicit benefits to workers of increased state involvement in the sector facilitated active campaigning on the issue from labour organisations but interviews revealed this was primarily driven by national level bodies and without input from company level unions who represent workers in the sector directly. This failure means that lithium workers feel neglected by the government, disconnected from national level labour organisations and ill at ease about the upcoming changes.

The alignment of national goals for more sustainable models of development and the industrial strategies intended to achieve these with workers interests is a positive development. However, local representatives stressed the need for much greater attention to details of how planned changes would impact workers and greater efforts and planning to ensure improvements to working conditions are maximised

as opposed to being tangential to the broader project of a less extractive model of development.

To achieve this we would recommend to the Chilean Government:

1. **Greater engagement with unions representing workers** in both lithium extraction and processing sectors to understand the type of interventions needed to improve their working conditions
2. **The introduction of sectoral level bargaining** to ensure greater consistency of working conditions across the sector
3. **Improved training and career development** opportunities for workers in the sector, including the development of degrees and postgraduate courses focused on lithium industry related skills to ensure workers are rigorously trained for the roles they need to perform.

For the Chilean trade Union movement:

1. **The formation of a Lithium Workers Confederation** able to represent sectoral interests in national level discussions about issues that affect the sector.

This project focuses on studying **Just Transitions** by comparing concepts, policies, and strategies across 14 diverse countries to ensure a **socially just shift towards decarbonisation**. It aims to develop recommendations for climate-friendly structural changes that protect workers and vulnerable groups. The project is funded by the Hans Böckler Foundation – Just Transition: Aktivitäten im internationalen Vergleich 2021-582-2.

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