



Lithium: Mining Key Fossil Fuel Alternative Threatens Indigenous Rights in Latin America

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Abstract: Bolivia, Argentina and Chile have the world's largest reserves of lithium, a key resource for the energy transition from fossil fuels. However, intensive mining poses a major environmental risk for the region and the rights of indigenous communities.

Growing public pressure has helped put climate change firmly on the world political agenda. The [Intergovernmental Panel on Climate Change](#) has been instrumental in getting the international community to take up the issue: its latest report predicts a global temperature rise of at least 1.5°C in the next 20 years. Discussions on causes and culprits of global warming have three common denominators: developed countries of the global north, which have the highest cumulative emissions; changes in land use; and the drastic increase in fossil fuel use. With 56 per cent of CO₂ emissions due to the burning of hydrocarbons, the 2015 [Paris Agreement](#) has emphasised the need to achieve carbon neutrality by 2050.

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Global energy transition is key to achieving this objective and lithium is a crucial resource in escaping the fossil fuel matrix. The mineral is a vital battery component supporting electromobility—mobile phones, tablets, laptops, digital cameras, electric cars—and its market has grown exponentially these past 30 years. The price of lithium carbonate has also shot up tenfold in 20 years, from US\$1,590 in 2002 to US\$16,250 per tonne in 2021, and the [International Energy Agency](#) recently estimated that demand will increase 43 times by 2040. The major countries competing for the primary resource are China, South Korea, the United States, Germany and Japan, with Asia—mainly China—dominating the global lithium trade. Asia imports or extracts raw materials and manufactures goods for both domestic consumption and export to the US and Europe—the continent supplies around half the world's battery market.

Mining threatens indigenous peoples' rights

All these countries extract the resource through rock or brine mining. A total of [68 per cent of the world's lithium reserves](#) are located in the South American Andes, in the triangle formed by Bolivia, Argentina and Chile. This desert region, 3,600-4,800m above sea level, is the ancestral homeland of indigenous peoples who raise camelids and farm the few oases there.

Intensive mining in some of the world's driest regions where native communities rely on grazing lands for subsistence farming threatens access to water and compliance with the obligation for free, prior, informed consultation with indigenous peoples in connection with their ancestral lands. Extracting one tonne of lithium carbonate requires 2m litres of brine, which is added to the fresh water used during the purification process. The possible consequences have been detailed by institutions such as [Fundación Ambiente y Recursos Naturales \(FARN\)](#) and [Jujuy Research and Development Center in Advanced Materials and Energy Storage](#).

This piece examines cases in Argentina and Chile to highlight the risks of an energy transition that exploits the lands inhabited by indigenous peoples.

Argentina

The Argentinian exploration sites are in the Jujuy, Salta and Catamarca provinces. The US Frontera Mining Corporation (FMC) started the first project (Fenix) in Catamarca in 1998 when provincial authorities granted concessions to companies for mineral exploration and exploitation. In addition to Fenix in Salar del hombre Muerto, the Sales de Jujuy project is currently active in Salar de Olaroz-Cauchari. In the Northwest, more than 50 other projects are at different stages of exploration.

The 33 Kolla and Atacama Indigenous Communities of Salinas Grandes and Laguna de Guayatayoc (the 33) inhabit 17,522 sq km (6,765 square miles). In 2009, they began to organise against mining companies endangering their territorial rights. They appeared before the Supreme Court of Justice in 2012, challenging

the granting of lithium exploration and exploitation rights to various companies without consultation or consent. [It has been argued](#) that cession of these rights violates domestic environmental legislation (Law No. 25675) and the National Constitution.

After the rejection of this claim by the Supreme Court, James Anaya (then United Nations Special Rapporteur on the rights of indigenous peoples) filed a complaint before the Inter-American Commission on Human Rights (IACHR), on the basis of [ILO Convention 169](#) and the [UN Declaration on the Rights of Indigenous Peoples](#). This claim is still pending.

The conflict in Salinas Grandes was reactivated in 2019, when the Ekeko company began exploration without consultation. However, the company withdrew from the site after several days of protests and roadblocks. In early 2020, the 33 filed a new [environmental protection action](#) against the governments of Salta and Jujuy and against the National State before the Supreme Court.

Chile

The history of the lithium industry in Chile starts in the late 1960s, when a small national network of experts emerged. This mineral was declared of national interest in 1979 and in 1995 the Chilean company SQM Salar SA began working in the Atacama salt flats. The country dominated world production as from 1997 and was only displaced in 2011 by [Australian rock mining](#).

The companies currently extracting lithium in Chile are SQM and Albemarle, a US-based chemical company with a presence in more than 75 countries. In 2015, both companies controlled 45 per cent of lithium salt production worldwide.

The lithium industry in Chile is based 55km from the town of San Pedro de Atacama in the Atacama salt flats, the ancestral homeland of the Lickanantay people, who have a special relationship with water. As they make their living by grazing animals and their region is one of the driest in the world, any change in water supply has a direct negative impact. Intensive exploitation of the area for more than two decades, the drying and contamination of lagoons, meadows and wetlands have resulted in water-stressed salt flats and a saturated ecosystem. As a consequence, the traditional way of living and survival of the Atacameño people have been threatened.

In 2018, environmental consulting firm Amphos 21 confirmed that water inflows to the Atacama salt flat are lower than outflows (by evaporation and evapotranspiration). Among the explanatory factors are the activities of SQM and Albemarle. Nevertheless, the same year, SQM secured licences to use the resource until 2030. The Council of Atacameño Peoples (CPA), which represents 18 communities, filed a lawsuit alleging that there had been no free, prior and informed consultation of their community in connection with this project.

Chile has ratified and incorporated ILO Convention 169 into domestic legislation. Nevertheless, none of the current lithium extraction operators have carried out consultations with indigenous peoples as required by international law.

Local communities must be respected

COVID-19 and growing alarm regarding the socio-environmental damage caused to the region do not seem to have modified the extractive focus of these projects. In Argentina, the incoming government in 2019 has shown interest in lithium by establishing a [National Lithium Board](#) including the participation of various provinces and ministries. So far, this has emphasised the potential of the resource in terms of development, investment and innovation. It remains to be seen whether environmental impacts and community views are part of the equation. In Chile, which recently held a Constituent Assembly and after close electoral results will imminently face a change in the political forces in government, there is a debate on which development model is desirable for the country and [the role of the state regarding corporate extractivism](#). Only time will tell how far-reaching the discussions and commitments on community participation and indigenous consultation will be.