CHINA'S INVOLVEMENT IN THE LITHIUM INDUSTRY

IN LATIN AMERICA AND THE CARIBBEAN

EXECUTIVE SUMMARY

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Lithium is a strategic mineral of the 21st century due to its central role in the global energy transition. It is essential for electric vehicles, energy storage, and renewable energy sources. Over 60% of global lithium demand is driven by these applications, and this share is expected to grow, positioning lithium at the core of climate, industrial, and technological policies in major economies, particularly China.

Although China does not have the largest reserves, its state strategy has consolidated a dominant position in the global lithium supply chain, integrating industrial planning, energy policy, public financing, technological innovation, and international expansion. China controls 65% of global refining capacity, dominates lithium-ion battery production, and leads the global electric vehicle market.

Latin America holds more than 50% of the world's lithium reserves. These reserves are found in the high Andean salt flats of Argentina, Bolivia, and Chile, as well as in rock and clay deposits in Brazil and Mexico. However, this abundance has not translated into economic benefits or meaningful participation in strategic segments of the value chain, such as refining, cathode production, and battery manufacturing, nor into the development of domestic technological capabilities. China is the primary destination for the region's lithium exports. In 2024, Latin America sold $3.000 billion in lithium carbonate, 80% of which was absorbed by China (UN Comtrade): 100% of Argentina's exports, 80% of Bolivia's, 77% of Chile's, and 61% of Brazil's.

Chinese companies have expanded in the lithium industry through green field projects, acquisitions, joint investments, and cooperation agreements. Two of the most relevant Chinese companies, Tianqi Lithium and Ganfeng Lithium, which are global leaders in refining, have moved towards primary extraction. Tianqi owns 22% of SQM's shares in Chile, and Ganfeng manages projects in Argentina (Mariana, Pozuelos-Pastos Grandes, Cauchari-Olaroz, Incahuasi, and Sal de la Puna) and the Sonora project in Mexico. This process is part of a vertical integration strategy to ensure a stable lithium supply and reduce exposure to the risks associated with volatile international markets.

In addition to serving as the primary export destination, Chinese battery and electric vehicle manufacturers are now involved in extraction and refining in the region. For example, Contemporary Amperex Technology Co. Ltd. (CATL) has a presence in the Uyuni and Coipasa salt flats through the Hong Kong CBC Investment Ltd. (CBC) consortium. Similarly, BYD Co. Ltd. (BYD) has signed agreements with the Brazilian and Chilean governments and local companies to secure preferential access to the mineral. Zijin Mining Group Co., Ltd., Tsingshan Holding Group, CITIC Guoan Group, and Hanaq Group have expanded their portfolios through horizontal integration in Argentina and Bolivia.

The ways Chinese companies operate vary by country. In Bolivia, projects with strong state involvement predominate. For example, the Hong Kong CBC consortium signed agreements with Yacimientos de Litio Bolivianos (YLB) in 2023 and 2024 for hydrogeological studies and for the construction and operation of industrial plants. These projects were supported by China National Machinery Industry Corporation (SINOMACH) and China CAMC Engineering Co., Ltd. In Argentina, Brazil, and Mexico, however, Chinese companies have prioritized joining projects under development through acquisitions, shareholdings, and long-term supply contracts to avoid assuming initial exploration risks.

The participation of Chinese companies in Latin America's lithium value chain tends to reinforce export-oriented schemes that prioritize external supply over the generation of local benefits, technology transfer, and the responsible management of social and environmental impacts in extraction territories.

GUIDELINES AND POLICIES ON ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FOR CHINESE ENTITIES AND COMPANIES INVOLVED IN THE LITHIUM VALUE CHAIN

Over the past decade, the Chinese government and trade associations have strengthened the framework guiding the overseas activities of their companies and banks, including in the mining sector, through the issuance of best-practice guidelines. While these Guidelines are not legally binding, they establish standards of behavior that promote compliance with host country laws and progressively incorporate international environmental, social, and governance principles, including early-stage monitoring and supervision mechanisms.

Among the most relevant instruments for the mineral supply chain are the 2022 Guidelines for Ecological and Environmental Protection of Foreign Investment and Cooperation Projects, issued jointly by the Ministry of Ecology and Environment and the Ministry of Commerce. These Guidelines apply to new projects, expansions, and acquisitions. They establish the obligation to comply with host-country regulations and with international or Chinese standards when those standards are more stringent than domestic ones. The guidelines also require environmental due diligence prior to procurement, prevention of pollutant discharges in mining projects, protection of groundwater and biodiversity, and environmental certification in the supply chain.

Second, the Chinese Due Diligence Guidelines for the Mineral Supply Chain (CCCMC, 2nd ed., 2022) recommend implementing comprehensive risk-proportionate due diligence systems that include accountability mechanisms. These Guidelines include an obligation to refrain from operating on projects that lack free, prior, and informed consent (FPIC) or full environmental assessments, or that are located in protected areas. They also ensure compliance with host country labor standards.

Chinese stock exchanges have strengthened their environmental, social, and governance (ESG) disclosure requirements. Since 2020, the Hong Kong Stock Exchange has required mandatory reporting and has promoted alignment with international climate change standards. The Shanghai, Shenzhen, and Beijing stock exchanges required annual sustainability reports starting in 2025, with specific requirements for high-risk sectors, such as mining and mineral processing.

Most Chinese companies in the lithium supply chain report having social, environmental, and transparency policies in place, including Zijin Mining, Zangge Mining, CATL, CMOC, Tianqi, and BYD. However, the existence of such policies does not necessarily translate into responsible practices in the territories where they operate.

MAIN SOCIAL AND ENVIRONMENTAL RISKS AND IMPACTS ASSOCIATED WITH CHINESE LITHIUM PROJECTS IN LATIN AMERICA

Across the five countries analyzed, regulatory and sectoral governance persist. In several cases, Chinese companies operate in contexts characterized by social and environmental conflict, limited institutional capacity within national regulatory agencies, and deficient and incomplete regulatory frameworks. These conditions reduce the effectiveness of oversight and enforcement mechanisms intended to prevent and mitigate environmental and social impacts.

Currently, at least 20 projects involving Chinese companies span various segments of the lithium value chain in the region. This expansion has occurred alongside the incorporation of several Latin American countries into the Belt and Road Initiative (BRI): Bolivia and Chile joined in 2018, and Argentina joined in 2022.

In this context, the following structural weaknesses in the regulation and management of the sector are evident:

In the environmental dimension, the main challenge is the pressure on water resources amid scarcity and ecological fragility. The risks in the high Andean salt flats of Argentina, Bolivia, and Chile are concentrated in the overexploitation of aquifers in closed basins. In Argentina, Ganfeng Lithium's Cauchari-Olaroz Project is located in a fragile, high-mountain ecosystem with permanent water scarcity. In Bolivia, projects are advancing in areas with negative water balances and close to protected areas, such as the Eduardo Avaroa Reserve. In Chile, sustained pumping in the Salar de Atacama has generated annual land subsidence. In Brazil, mining in the Jequitinhonha Valley intensifies competition for water in an already water-deficient region. In Mexico, projects promoting clay extraction in the Sonoran Desert lack specific regulations, despite the area's high water stress.

In the social dimension, the primary risk is the omission of consultation and participation processes for indigenous peoples, local communities, and Afro-descendants. This contravenes Convention 169 of the International Labour Organization (ILO), which has been ratified by all of the analyzed countries. In Bolivia, for example, agreements were signed between YLB and companies such as CBC and CITIC Guoan, without prior consultation in indigenous territories. In Brazil, the Pankararu and Aranã Kaabok indigenous peoples and traditional communities challenged Sigma Lithium's expansion in the Jequitinhonha Valley. In Mexico, Ganfeng's Sonoran Lithium Project provides no evidence of formal consultation with the Yaqui and Seri peoples. In Chile, the National Lithium Strategy was questioned by the Lickanantay people due to a lack of consultation on decisions affecting their territory. Although Argentina, Bolivia, Chile, and Mexico have ratified the Escazú Agreement, none have effectively guaranteed access to information, participation, and environmental justice in the planning and implementation of lithium projects.

In the governance dimension, the five countries have limited institutional frameworks for regulating the lithium sector, particularly regarding its socio-environmental aspects. In Bolivia, Laws No. 535 and No. 928 assign responsibility for the lithium supply chain to YLB. However, there are no specific environmental standards for its exploration and exploitation. Critical aspects, such as residual brine management and fresh water use, lack technical guidelines. Brazil's Decrees 10,657/2021 and 11,120/2022 eliminated foreign trade controls without strengthening environmental regulations or establishing safeguards for sensitive territories. In Chile, the National Lithium Strategy (2023) was developed without significant indigenous involvement or an ecosystem-based approach. Mexico's 2022 nationalization of lithium and the establishment of LitioMx failed to set specific technical standards for clay mining. The region shares structural deficiencies, including formal but limited recognition of individual and collective human rights; an absence of specific environmental and social standards for lithium; low contractual transparency; and insufficient state capacities for participatory governance. These weaknesses are evident in the operations of Chinese companies, whose contracts often include confidentiality clauses that restrict access to relevant social and environmental information.

Table 1 summarizes the social, environmental, and governance risks associated with the ten projects analyzed in the report. Eight of the projects pose a risk of water overexploitation, and five pose a risk of environmental contamination. All ten projects pose risks to indigenous peoples and local communities. In terms of governance, eight projects raise questions about incomplete environmental studies, and six raise questions about deficiencies in transparency and accountability.

RECOMMENDATIONS

China occupies a central position in the global and Latin American lithium value chains. Therefore, it is necessary to strengthen environmental and social risk assessment and management, as well as standards, systems, and practices, applicable to relevant Chinese stakeholders in this industry and supply chains.

Therefore, the following recommendations are addressed to Chinese regulatory authorities, financial institutions, and companies. These recommendations cover the entire chain, including financing, exploration, extraction, processing, transportation, manufacturing, marketing, and recycling.

hese recommendations acknowledge the responsibility of Chinese stakeholders for the impacts of their operations while recognizing that the primary obligation to protect public interests and community rights in the territories lies with the national governments.

Consider establishing "No-go areas".

Within its territory, China implements the "Ecological Conservation Red Lines" (ECR) policy, promulgated by the State Council, which delineates ecologically sensitive areas where extractive activities are prohibited. China has promoted this approach as a replicable practice at recent Biodiversity Summits. It should be extended to Chinese projects in the lithium chain abroad when there are serious and irreversible risks, such as cases that compromise access to water for the population, affect protected areas, high Andean wetlands, or Ramsar sites — a treaty to which China is a party — or are developed without the FPIC of local communities or in violation of their rights.

Strengthen the formulation and implementation of environmental and social policies by Chinese banks and companies.

Many Chinese banks and companies claim to have institutional policies on sustainability and social responsibility. However, most of these policies are not publicly available, have gaps, and are not binding. This limits their effectiveness and credibility. For China to establish itself as a leader in the global lithium industry, it must strengthen the content, scope, and implementation of their environmental and social frameworks. Minimum requirements include:

a) Adopting the highest international standards.

Even if they exceed local requirements, Chinese companies should commit to global best practices for lithium extraction, including the standards of the International Responsible Mining Assurance Initiative (IRMA), the Extractive Industries Transparency Initiative (EITI), and the Escazú Agreement.

b) Enact strong, binding ESG policies across the entire value chain.

Chinese companies should establish binding ESG policies for each stage of the process in which they are involved. Banks should develop detailed, binding sectoral safeguards with clear compliance mechanisms. Both should ensure these policies are managed by technical teams with sufficient authority, expertise, and resources.

c) Fully respect FPIC.

Chinese banks and companies should publicly commit not to finance or participate in projects in indigenous territories unless the affected communities have given their consent, as required by ILO Convention 169 and other relevant international standards.

d) Incorporate environmental and social insurance that is commensurate with the level of risk.

Insurance should be included in loan and works contracts in the lithium chain to cover the highest-impact scenarios, such as tailings collapse, aquifer contamination, and population displacement.

e) Projects should be classified by risk level.

Banks should categorize each project according to its potential environmental and social impact. The highest-risk projects should be subject to stricter evaluation, approval, monitoring, and management processes.

g) Implement a "zero tolerance" policy for abuses against environmental defenders.

To ensure that borrowers and contractors understand and implement the prohibition on retaliation, threats, or violence against environmental defenders, banks and companies should establish clear protocols, early-warning mechanisms, and training programs.

Improve the quality of environmental and social impact studies.

As a condition for credit approval, Chinese banks should require environmental and social studies at each stage of the lithium extraction project life cycle. These studies should be strategic, comprehensive, and systemic, paying special attention to the effects on aquifers, watersheds, and hydrological cycles. Extraction can alter groundwater flows, degrade wetlands, and compromise water availability for communities and ecosystems. Throughout the process, companies must guarantee the full and informed participation of local communities and indigenous peoples, respect their knowledge, and ensure their access to independent technical advice.

The results should be disseminated completely, transparently, and in a timely manner in the local language so that anyone can review, verify, and clearly understand their implications.

Promote the implementation of the Chinese Guidelines.

Those who issue social and environmental guidelines should actively disseminate, implement, and monitor them. They should work with Chinese embassies to translate the guidelines into local languages, distribute them to all stakeholders, and explicitly incorporate them into loan and construction contracts.

Improve transparency practices.

Chinese banks should disclose information about whether they make direct or indirect loans to companies or governments that support lithium mining and related activities. Companies should proactively publish socio-environmental assessment studies, permits, and monitoring reports to ensure that local communities and the general public have access to this information. Since Chile, Argentina, Bolivia, and Mexico have ratified the Escazú Agreement, Chinese banks and companies should incorporate it as a mandatory requirement in all their operations in these countries.

Banks and companies should improve due diligence practices.

Chinese banks and companies should conduct rigorous human rights and environmental due diligence on all lithium mining projects and supply-chain links in which they are involved, whether directly or indirectly.

Banks must conduct these assessments in accordance with the China Banking and Insurance Regulatory Commission's (now the National Financial Regulatory Agency) guidelines, which stipulate that the analysis's scope be defined based on the sector's and region's characteristics to ensure completeness and detail. Mining companies must act in accordance with the Guidelines for Social Responsibility in Overseas Mining Investment (CCCMC, 2017) and the Guidelines for Due Diligence in the Minerals Supply Chain (CCCMC, 2nd ed., 2022). These instruments emphasize the comprehensive assessment of human rights risks, traceability,

and supply chain conditions to prevent environmental impacts, social conflicts, and rights violations.

Create and implement grievance and redress mechanisms.

Chinese banks and companies should have grievance mechanisms in place that allow communities affected by lithium mining or related activities to file complaints and access timely remedies.

Despite the Banking and Insurance Regulatory Commission explicitly recommending it in 2022, banks have yet to establish such mechanisms. The CCCMC established the voluntary Mediation and Consultation Mechanism for the Mining Industry in 2023. Nevertheless, after more than two years, it still lacks the technical and financial resources to operate effectively.

It is urgent that banks establish their own mechanisms without delay, and that the CCCMC strengthen its own mechanisms by providing the necessary resources to function effectively.

Table 1.

Main Environmental, Social and Governance Risks and Impacts Associated with Lithium Projects in Latin America Involving Chinese Companies

Country	Project	Company	Impacts / Risks Identified*					
			ENVIRONMENTAL		SOCIAL		GOVERNANCE	
			Excessive Extraction of Water	Pollution	Indigenous Peoples/Local Populations	Labor	Incomplete Environmental Studie	Transparency / Accountability
Argentina	Cauchari-Olaroz	Ganfeng Lithium (46.7%)	●	●	●	●	●	●
	Tres Quebradas	Zijin Mining Group Ltd.	●	●	●	●	●	●
	Mina Agonic	China National Offshore Oil Corporation (CNOOC)**	●	●	●	●	●	●
Bolivia	EDL in Salar de Uyuni	Hong Kong CBC (CATL, BRUNP, CMOC)	●	●	●	●	●	●
	EDL in Salar de Coipasa	Hong Kong CBC (CATL, BRUNP, CMOC)	●	●	●	●	●	●
	Seven Salars (Uyuni, Coipasa, Pastos Grandes, Empexa, Cañapa, Chiguana, Capina)	Qinghai Citic Guoan Science and Technology Development Co., Ltd	●	●	●	●	●	●
Chile	Salar de Atacama	Tianqi Lithium (22 % de SQM); CATL	●	●	●	●	●	●
Brazil	Coronel Murta	BYD	●	●	●	●	●	●
	Vehicle production complex in Camaçari	BYD	●	●	●	●	●	●
México	Sonora Lithium: Buenavista, Megalit, San Gabriel, Sonora Plant de Li-k, Sonora (Fleur y El Sauz), Ventana.	Ganfeng International is in litigation before the ICSID	●	●	●	●	●	●

Source: Report based on the following sources: Gonzales-Jauregui (2024), YLB (2024), and others cited in this Report.
The projects are not ranked by progress status of development (exploration/production) or category of impact.

Symbol	Meaning
●	Indicates the existence of documented public records on the impacts or risks associated with the indicated dimension. This sybol indicates the existence of at least one publicly documented event, such as a community complaint, administrative procedure, litigation, technical report, or media coverage. It does not imply an assessment of magnitude or severity.
●	Indicates insufficient public information available when the table was prepared
●	Indicates that the dimension is not applicable to the project type.

* This table is not an exhaustive analysis or assessment of impacts or risks, but rather a systematization of publicly available information.

** CNOOC (China) indirectly owns more than 22% of Lithium Energy through BC Energy Investments Corp. (Argentina), which has a 50% stake in Pan American Energy Group (PAEG), based in Spain. PAEG owns more than 90% of Lition Energy.