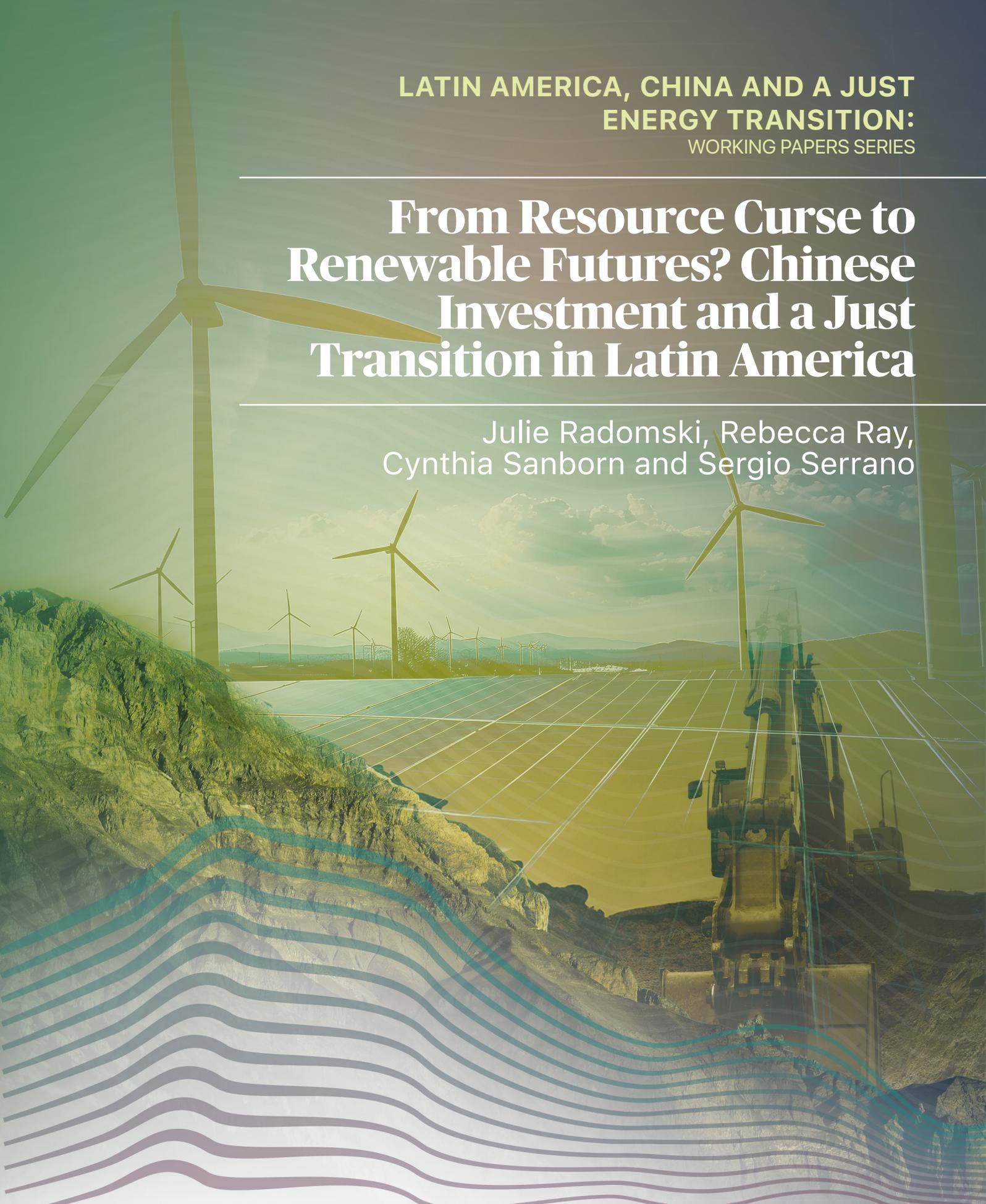


**LATIN AMERICA, CHINA AND A JUST
ENERGY TRANSITION:**
WORKING PAPERS SERIES

From Resource Curse to Renewable Futures? Chinese Investment and a Just Transition in Latin America

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Cynthia Sanborn and Sergio Serrano



Latin America, China and a Just Energy Transition: Working Paper Series

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Introduction

Latin America's wealth of transition minerals—including some of the world's largest deposits of lithium and copper—positions it as a key supplier of the raw materials necessary for renewable energy generation. Yet the promise of this new wave of demand comes with risks. Despite GDP growth due to commodity exports, past resource cycles in Latin America have resulted in environmental degradation, social conflict, and economic fragility rather than broad-based development. Therefore, a just energy transition in the region requires charting a different course: one that moves beyond raw resource extraction toward well-regulated commodity sectors linked to building new upstream supply chains and downstream industrialization.¹ Equally important, it must ensure that the benefits of renewable energy generation and related technologies are broadly shared, with equitable access to the opportunities and resources generated across social groups.

The growth of sectors related to the energy transition creates an opening to pursue this path, not least because it involves mainstreaming state-investor relationships with Chinese firms and financial institutions, some of which are relative newcomers to the region. For Latin America, this opens new opportunities as well as new concerns. On one hand, longer-term engagement by Chinese entities offers host governments potential policy space to set and sustain high standards for environmental and social governance, assuming that policymakers link contracts and permits to effective environmental and social governance (ESG) policy instruments (Ray et al., 2017; 2025). On the other hand, gaps in national regulatory frameworks and industrial policies with relation to newly expanding sectors and international partnerships can undermine Latin American countries' broader development goals. To work towards a just transition, these goals would include robust ESG of transition mineral sectors, mid-stream industrial development to mitigate dependence on extractives, and equitable clean energy access (Working Group on Development and Environment in the Americas 2023). These ambitious goals are further complicated by intensifying geopolitical competition, including tensions over access to strategic minerals. Latin American countries face pressure to align with competing powers, even as they seek to leverage mineral demand to advance their own development and just transition goals while maintaining strategic autonomy.

In light of this mix of challenges and aspirations, a joint research initiative of CECHAP (Universidad del Pacífico), the Public Development Finance Research Program (Peking University), and the GDP Center (Boston University) analyzes national trends and policy frameworks in four Latin American countries—Argentina, Chile, Colombia, and Peru—in energy transition-related sectors with particular attention to Chinese engagement. In a series of working papers, researchers based in each of these four countries have 1) mapped national ESG frameworks and the role of Chinese companies within these contexts to date, and 2) identified efforts to promote renewable energy generation and develop value-added activities in related value chains (González Jáuregui and Trevignani, 2026a; González Jáuregui and Trevignani, 2026b; Rehner et al., 2026a; Rehner et al., 2026b; Defelipe Villa and Díaz Ramos, 2026; Merino, 2026a; Sanborn et al., 2026). Merino (2026b) compiles and compares findings on these four countries' ESG standards with a focus on Chinese participation in the energy and mining sectors. Each report offers detailed examination of regulatory frameworks, stakeholder dynamics, and policy opportunities, providing contextual depth for understanding the challenges and possibilities in these four distinct national settings.

The project also compiled a comprehensive database of energy and mining projects with Chinese involvement in the four countries, drawing out overarching patterns in the key actors involved and their modes of engagement (Wang, 2026; see also Annex: Project Maps). Beyond the country-specific cases, one additional report analyzes the possibilities for regional cooperation and value chain integration, while another report homes in on the role of Chinese public development finance institutions (PDFIs) (Irrázaval and Obaya, 2026; Xu et al. 2026). Contributions from Xu et al. (2026) and López Kotz (2026) also provide important context on the domestic roots of China's global role in the energy transition.

Based on the key findings from this set of reports, this policy brief aims to distill lessons and generate actionable recommendations for steering the China–Latin America relationship toward a just energy transition. While this brief synthesizes cross-cutting themes and patterns across the four countries, readers are strongly encouraged to consult the working paper series for in-depth analysis of the aforementioned national contexts and specific issue areas.

¹ In this context, “upstream” (backwards linkages) refers to the development of industries that supply the extractive and energy sectors, including equipment manufacturers and service providers. “Downstream” (forward linkages) refers to the value-added activities after the extraction or production of a raw resource, such as mineral processing, industrial manufacturing, or assembly of goods such as electric vehicles.

I. Findings

The four countries examined in the reports illustrate the diversity of approaches to developing national strategies and regulatory frameworks that might steer Chinese involvement in transition minerals and renewable energy sectors toward sustainable and inclusive outcomes. Among these countries, for example, Peru stands out for its relatively strong formal regulatory frameworks for mineral exploration and extraction, but is at the earliest stages of the four in terms of developing a national energy transition strategy, let alone one that incorporates the elements of a just transition discussed above (Sanborn et al. 2026). In Peru, policy discussions are often shaped more by short-term political cycles than by long-term planning. Meanwhile Colombia's tradition of developing social and environmental protections for investments has been building since its 1991 constitution, and it has signed agreements with China relating to "green development" with references to renewable energy, but these have yet to translate into actionable plans (Bula Escobar et al., 2016; FMPRC, 2023; Xinhua, 2025). Colombia's capacity to develop such strategies is also hampered by persistent governance challenges, particularly the weak rule of law and ongoing armed violence in rural areas (Defelipe Villa and Díaz Ramos, 2026).

Chile has advanced the furthest of the four countries at the level of national strategy for energy transition, drawing on its multi-year, multi-stakeholder *Energía 2050* roadmap to set a strategic vision for the sector. Yet this has not translated into significant domestic industrial capacity, with efforts at downstream renewable energy technology manufacturing facing setbacks and the swift change to solar and wind energy relying on imported technology and components with China as key supplier (Rehner et al., 2026b). Argentina presents a distinct challenge: its federal system has produced a patchwork of provincial-level approaches to transition mineral mining and downstream industrial development, including provinces with well-established ties to Chinese investors as well as others at the outset of engagement. While the national government has articulated energy transition goals through its 2030 and 2050 targets, provincial priorities may diverge from federal goals (González-Jáuregui et al., 2026b). At the same time, persistent macroeconomic instability and changes in political administrations' priorities have constrained long-term planning.

1. Extractive sectors

In the mining sector, previous research suggests that Chinese state-owned firms often take a longer-term approach than many of their Western counterparts (Working Group on Development and Environment in the Americas 2023, Ray et al., 2025). This relative stability creates an important, if underutilized, opportunity for Latin American governments. By leveraging Chinese investors' longer-term engagement, states could more effectively set and enforce environmental and social governance (ESG) expectations, aligning investor practices with national development and just transition goals (Ray et al., 2022).

Unfortunately, rather than stepping into the role of setting, communicating and enforcing high-level standards, our studies reveal that governments rely on regulatory systems that are both complex and undermined by loopholes. These frameworks can impose complex procedural obligations on mining companies while still permitting low levels of ESG performance in practice. In Peru, for example, Merino (2026b) points out that the *Instrumento Técnico Sustentatorio* (ITS) has allowed companies to make significant project modifications without conducting a

full Environmental Impact Assessment (EIA). This procedural shortcut reduces the administrative burdens that often delay major investments, but can weaken the substantive ESG protections that are on the books, depending on the conditions under which their use is determined. For instance, at Las Bambas copper mine, successive ITS approvals enabled major modifications in the original project when it changed to Chinese ownership without consultation of affected communities, fueling local grievances regarding transparency and environmental impacts (Merino, 2026b).

Despite their differences, the four national cases reveal common challenges that limit the effectiveness of their existing regulatory and strategic frameworks with relation to Chinese companies. Chinese mining and renewable energy companies have frequently entered Latin American markets through mergers and acquisitions of projects that were originally initiated by other firms. In some instances (discussed further below), environmental and social conflicts surrounding existing mines or energy generation projects were already present before the Chinese company became involved, leaving Chinese firms exposed to unresolved disputes. Such dynamics can be particularly challenging for firms with limited experience in specific national contexts—the case for some though not all of the Chinese firms in these sectors—which can heighten their vulnerability to community opposition and reputational risks. Relative newcomers in this region include many of the companies investing in lithium projects, for example, as well as in solar and wind (Wang, 2026). This pattern points to shortcomings in due diligence practices, as acquiring firms in operation does not exempt the investor from adequately assessing and preparing for ongoing ESG issues. Meanwhile, in the case of "legacy" firms, or Chinese companies with longer term experience in the region, such as those active in copper mining in Peru, the issue may be less one of inexperience than of limited institutional learning.

Beyond investment in existing projects, Chinese firms' presence has great potential to grow. In terms of financing for Chinese participation in the new climate economy in these countries, Xu et al. (2026) find that Chinese PDFIs have the potential to leverage their policy-oriented mandates to support the energy transitions in Latin American countries, including engagement of local stakeholders through the BRI green development framework. However, today this potential is largely untapped, as fossil fuel exploration and extraction account for over 60% of Chinese PDI energy lending in Latin America, followed by hydropower at nearly 30%, with no new lending in recent years.

To drill down on sector-specific patterns highlighted across the country reports, the remainder of the summarized results are divided between a) the extractive sectors and b) renewable energy generation and industrial activities.

The problem becomes particularly acute when incoming Chinese firms assume that compliance with the formal legal framework is sufficient, only to find that projects fall short of the expectations of affected communities and international ESG best practices. This disconnect underscores the gap between regulatory compliance and social legitimacy, which generates tensions in extractive sectors across the region. For example, the Tres Quebradas lithium project in Argentina was initially developed by Neo Lithium (Canada) but fully acquired by the Chinese company Zijin Mining

Group in 2022. By the time Zijin entered, the project already faced unresolved concerns by local communities regarding lack of transparency, exclusion from decision-making and livelihood impacts stemming from water depletion (González Jáuregui and Trevignani, 2026a).

The presence of illegal mining in Colombia and Peru further complicates such situations, particularly in the gold and copper sectors that do not require new extraction technologies and are therefore accessible to small-scale artisanal producers. For firms with limited experience in the relevant national or local political context, distinguishing between legally recognized artisanal miners and actors engaged in illegal operations can be especially murky. The case of the Buriticá gold mine in Colombia is illustrative. Although the region is said to have a long tradition of small-scale mining, the arrival of Continental Gold (the Canadian firm that first developed the project) attracted thousands of artisanal miners who occupied lands overlapping with the company's concessions. While some participated in firm-led formalization programs, a larger number were linked to illegal armed groups such as the Clan del Golfo. In an in-depth study on this case, Defelipe Villa and Díaz Ramos (2026) point out the lack of clarity in Colombia's mining code to differentiate between illegal mining and legitimate artisanal or ancestral mining, and the incapacity of government authorities to prevent illegal miners from exploiting the tunnels belonging to the company's concessions. Operating in this context has proven challenging for the mine's new Chinese owners, Zijin mining company (Defelipe Villa and Díaz Ramos, 2026).

Across all four countries, the reports also note that gender considerations remain peripheral to ESG in practice. The approach

of Chinese companies to gender equality in mining does not differ markedly from those of other foreign investors, instead replicating the prevailing industry norms. Women generally represent a small portion of the mining workforce and are concentrated in administrative or informal roles, although in Colombia efforts at formalization have targeted women in particular (Merino, 2026; Defelipe Villa and Díaz Ramos, 2026). In Argentina, local content rules establish that 70% of the work force should be national, and within that, 40% must be women, yet in practice these targets are not met by companies across the mining and energy sectors, with Chinese firms being no exception (González Jáuregui and Trevignani, 2026a).

Gender equality commitments are also rarely integrated into ESG mechanisms, and when they do appear they are often merely declarative, lacking concrete goals or indicators to assess progress. This includes efforts to assess whether women are included in consultation and participation processes, if they have new employment opportunities, and if there is awareness and prevention of gender-based discrimination. The lack of effective commitment to closing gender gaps, means that women—especially low-income and Indigenous women—may bear disproportionate negative environmental and livelihood impacts while remaining underrepresented in decision-making spaces. Overarching national plans, such as Chile's Labor Equity Plan (Plan de Equidad Laboral, 2022) or Peru's National Gender Equality Policy (Política Nacional de Igualdad de Género, 2019), establish on-paper aspirations but there is little evidence that these measures have meaningfully altered gender dynamics in mining sectors (Rehner et al., 2026a; Merino, 2026).

2. Value chains and renewable energy generation

Across the region, governments have expressed the intent to develop domestic mineral processing and downstream industrialization with relation to energy transition sectors, particularly electric vehicles (EVs), as well as upstream linkages through the development of mining and energy service suppliers' industries. Such efforts are seen as a way to capture greater value from transition minerals, create skilled employment and strengthen participation in the emerging global green economy, including through technology and knowledge transfer. However, realizing these ambitions has thus far faced significant structural, technical and geopolitical challenges in Argentina, Chile, Colombia, and Peru.

First, developing local industrial capacity requires a high level of technical expertise, not only in final-stage assembly but also in the manufacture of intermediate goods, which would necessitate workforce training that is especially difficult in countries that do not have a tradition of such educational programs. Additional constraints specific to EV battery manufacturing further complicate these efforts. Lithium, for example, represents only about 7% of all components of batteries, meaning that manufacturing complete battery systems domestically would require importing numerous other inputs. Furthermore, battery production is typically located near end-users, namely electric vehicle factories. In Latin America, the lack of reliable transportation infrastructure linking mining regions, processing facilities, and consumer markets creates an additional barrier to establishing cohesive supply chains. Irrázaval and Obaya (2026) stress the overall lack of a robust Latin American industrial ecosystem that would sustain competitive production chains in renewable technologies. Together, these factors suggest that while domestic industrialization is a stated priority for policymakers, achieving it will require significant investments in skills, logistics, knowledge transfer, long-term industrial policy,

and regional strategic coordination that is beyond current capacity in the near-term.

The characteristics of Chinese firms in the green technology manufacturing and renewable energy sectors may also impact possibilities for cooperation. In the four countries, the Chinese firms involved in these sectors tend to be private, and can have different incentives and modes of operation when compared to Chinese state-owned enterprises (although there is important investment of SOEs in energy distribution systems in Chile and Peru). The reports from this project show such firms as responsive to commercial interests and with short-term decision horizons, rather than having a "patient capital" approach that can be more conducive to longer-term stability and investment in technology and knowledge transfer (Wang, 2026; Ray et al., 2025). However, private companies tend to be more efficient and may be more responsive to local policy incentives, for example to improve training of their local workforce. For Latin American countries, the challenge is to have variety of investors, and not depend entirely on either private firms or SOE with political obligations to their home states.

Chile provides a cautionary tale of firms active in lithium industrialization growing impatient with slow government processes to set up overseas factory sites. The shorter-term orientation of the private Chinese firms active in this sector have so far not proved to be compatible with Chile's years of national strategy building. For instance, in 2022 the Chinese EV manufacturer BYD was approved by the Chilean Production Development Corporation (Corfo, Corporación de Fomento de la Producción) to access preferential-price lithium carbonate produced by the Chilean company SQM and promised to build a processing plant in the Antofagasta Region. However, amid lithium price declines in 2023–2024 and delays related to bureaucratic processes, BYD abandoned its investment plans (Rehner et al., 2026b). Although the reasoning behind this withdrawal was not

made public, this example demonstrates the tension between governments' strategic planning efforts and investors' more market-driven behavior, including responding to global factors such as price declines and adjustments in supply chains. In order for industrial policy to succeed in the long term, it will need to be aligned with private investors' market incentives as well as SOE incentives for long-term supply chain resilience.

In addition to ambitions to develop upstream linkages and downstream value-addition, there is a strong interest in expanding access to renewable energy across most Latin American governments -- but its implementation remains uneven. Chile has the most advanced framework through its Just Energy Transition Strategy (2021) and a high participation of wind and solar in its national grid (Rehner et al., 2026b). In Peru, renewable energies still represent a small fraction of the energy grid and there is a need for a National Renewable Energy Plan, particularly one that expands access to rural areas (Sanborn et al., 2026). Argentina's 2030 Plan and 2050 Guidelines (2023) aspired to territorial and social inclusion but lacked fiscal and institutional backing, including for significant transmission infrastructure gaps (González Jáuregui and Trevignani, 2026b). Furthermore, under the Milei Administration, which took office in December 2023, the agenda of energy transition and climate change has apparently been abandoned, raising further challenges for those who want to develop clean energy and link Argentina's lithium to electromobility

or other value-added initiatives. For its part, Colombia has a Just Energy Transition Roadmap but is currently highly reliant on a handful of large hydropower projects (Defelipe Villa and Díaz Ramos, 2026). It is also important to note that, because of the energy-intensity and relative remoteness of large-scale mining activities, a significant portion of all of the energy generated in each country supports the mining industry rather than household use.

With regard to Chinese involvement, investment in wind and solar energy generation in Chile, Peru, Argentina, and Colombia to date has tended to be opportunistic, focused often on acquiring existing assets from Western companies divesting their holdings. Examples include State Power Investment Corporation's portfolio of solar and wind projects in Chile through its acquisition of an Australian company in 2016, or the acquisition of several already-built hydropower projects in Peru by China Yangtze Power International and China Three Gorges (Sanborn et al., 2026; Rehner et al., 2026b). Furthermore, beyond foreign direct investment, Chinese companies are dominant in the region as suppliers of inputs for wind and solar energy plants (Rehner et al., 2026b). These firms appear to be responding to market demand by following customers, complicating the ability of Latin American governments to strategize jointly to develop a green grid or achieve broader just transition objectives.



II. Recommendations

Building on the findings outlined above, the following section provides recommendations for Latin American governments and policymakers, as well as for Chinese companies, investors and development finance institutions. The objective is to better support a just transition aimed towards fostering robust upstream and downstream ESG, value-added sectors to mitigate dependence on extraction and move up global value chains, and equitable

access to the benefits of the new green economy.

The recommendations that follow are informed by detailed findings from each of the four country studies. For specific consideration of the possibilities for implementing these recommendations within particular national contexts readers should refer to the working papers referenced throughout this brief.

1. Establish clear and robust ESG expectations for firms and governments in the mining sector:

National host-country frameworks should be streamlined, without being weakened, to avoid short-sighted approaches and eliminate ambiguity with regard to environmental and social assessment, monitoring, and accountability. This process should be transparent and targeted towards the consolidation of existing ESG standards rather than relaxing them.

- Subnational institutions' engagement in ESG processes should be developed to more effectively represent local demands and interests, including at the provincial, municipal, and community levels. Rather than devolving responsibility to the subnational level where capacity may be lacking, this would entail ensuring that local actors are on board with national processes.
- Establish independent and publicly accessible ESG audits to monitor environmental and labor compliance, supported by

clear incentives for adherence and judicial capacity to enforce administrative sanctions.

- Chinese firms should strengthen their own in-house due diligence processes to limit exposure to environmental and social risks, particularly when acquiring existing projects that may already be the subject of ongoing disputes. This should include assessment of regulatory loopholes or ambiguous legal interpretations in the host country. This recommendation applies also to development finance institutions, to the extent that these support mining operations.
- When governments do streamline project approval processes, the decisions made and their justification should be fully transparent.

Main country-specific recommendations:

- » **Argentina:** Harmonize provincial-level standards, with greater scientific and community-level participation in environmental impact assessments and indigenous consultation processes. Pre-investment environmental studies should be geographically broad, particularly in the case of hydrological issues, such that broader ecosystem impacts are considered.
- » **Chile:** Improve the incorporation of cumulative environmental impacts, especially the accumulated use of groundwater resources. Improve communities' capacity and opportunities to engage with environmental and social standards, particularly in the Antofagasta and Atacama regions where lithium extraction and many renewable energy projects are concentrated.

- » **Colombia:** Define a clear ESG framework. Strengthen the role of the state, and governmental authorities, in implementing the right to prior consultation, rather than make this the responsibility of companies. Consider including subnational governments in this process. Consultations should be well-documented and representative of all stakeholder communities across racial, ethnic, and cultural lines.
- » **Peru:** Centralize the certification process and consolidate the Servicio Nacional de *Certificación Ambiental para las Inversiones Sostenibles* (SENACE) as the only national entity tasked with approving environmental studies. The ITS process should be more transparent, as it has at times been used to circumvent requirements for significant modifications.

2. Strengthen participation and accountability mechanisms throughout project lifecycles:

Community communication and accountability processes should be established prior to the beginning of mining or energy projects. Further, mechanisms for active participation must be sustained throughout their lifecycles to continuously reinforce the state-community-firm relationship.

- Free, Prior, and Informed Consent (FPIC) processes — per ILO Convention 169, ratified by all four countries — should be undertaken between the state and indigenous communities, prior to company involvement and indeed, prior to the decision to grant concessions or authorize major investment projects that affect indigenous lands and cultures. These processes

must be inclusive and thoroughly documented to ensure that community concerns and commitments are preserved for ongoing accountability.

- Mining companies, including Chinese mining firms, should establish mechanisms for ongoing communication with communities in their areas of influence, once concessions or contracts are awarded, or operations are acquired from prior owners. Other stakeholders should also be regularly consulted, including civil society organizations or academics engaged with the relevant projects. Even if not legally mandated, such engagement can identify emerging problems and build the trust necessary for stable operations. These mechanisms

should be designed to extend beyond local political authorities to avoid tokenistic engagement that formally satisfies consultation requirements but fails to build legitimacy on the ground. The imperative for consultation and participation on ESG issues is also increasingly recognized in Chinese ESG policies governing overseas finance, though implementation of such guidance is lacking (Wang, 2026).

Main country-specific recommendations:

- » **Argentina:** Establish external ESG audits and independent monitoring with local and scientific input. Create sanctions for not complying with FPIC and publish the results. Create an environmental mitigation fund financed by governments and firms. Introduce independent mediators and accessible complaints mechanisms.
- » **Chile:** Establish periodic and independent ESG audits of mining and energy projects. Promote continuous dialogue with communities. Reinforce labor compliance monitoring.
- » **Colombia:** Establish incentives for ESG compliance and citizen monitoring structures. Promote independent mediation. For small-scale informal mining, simplify access to information and legal guidance.
- » **Peru:** Make the Participatory Environmental Monitoring Committees (Comités de Monitoreo Ambiental Participativo) mandatory. Redesign the specialized environmental sanctions process to resolve complaints more quickly. Develop a national plan for addressing environmental harm through the Organismo de Evaluación y Fiscalización Ambiental (OEFA).

3. Promote sourcing of local inputs and labor:

Improve technical capacity and access to education for more citizens in mining countries, including those in mining-adjacent communities, with an emphasis on gender equality to promote inclusivity at the local level. Incentivize the use of local labor, inputs, and services where possible in order to strengthen local

value chains and create additional employment opportunities. In particular, encourage agreements between Chinese firms with local companies and research institutions to promote technology transfer.

Main country-specific recommendations:

- » **Argentina:** Develop incentives to expand existing programs for educating the local workforce, including formal educational exchange programs.
- » **Chile:** Evaluate cooperation agreements with international firms to prioritize the development of specialized human capital. This includes limiting the use of non-local workers and working towards developing a technology-intensive supplier services industry. Build on the development of a regional knowledge base driven by lithium strategy.
- » **Colombia:** Guarantee high-quality employment through joint alliances and capacity building efforts engaging new Chinese investors. Develop alliances with universities and workforce development programs in mining territories.
- » **Peru:** Enforce existing standards for outsourcing in mining to close the loopholes that allow for substandard labor practices such as subcontracting to avoid trade union rights and obligations. Promote hiring of personnel from the communities and areas of influence, procurement from local suppliers, and local investment schemes.

4. Deepen coordination to increase opportunities for industrialization:

Move beyond national-level strategies to develop coordinated regional policies that would expand production scale and efficiency. Existing initiatives like bilateral treaties or cooperation through international organizations (such as ECLAC and the

Inter-American Development Bank) could be more effectively leveraged as a foundation for regional coordination. Working jointly towards shared industrial objectives will enhance the region's potential to develop competitive value chains.

- Coordinating with Chinese development finance institutions (DFIs) could help build the green technology manufacturing sector by providing access to capital and strategic coordination. Nevertheless, the limited regional integration of infrastructure and markets will continue to pose significant challenges to developing cohesive value chains. While coordination with Chinese DFIs has the potential to mitigate some of these barriers, it is worth noting that these banks are not currently active in financing green value chains in the region.

Main country-specific recommendations:

- » **Argentina:** Combine economic incentives and sourcing requirements to promote value addition in the lithium supply chain, supported by partnerships with companies and universities to develop local labor skills. Due to economic and technological barriers, orient industrial policy toward intermediate inputs rather than complete batteries.
- » **Chile:** Promote intermediate stages of the lithium value chain (such as cathode materials); assess the feasibility of battery production based on market conditions. Consolidate the National Lithium Strategy (2024) to extend the value chain through both forward and backward linkages and strengthen knowledge associated with lithium, linking it to the broader ambition of exporting clean energy (green hydrogen) and energy-intensive services (such as data centers) as well as creating diversified supplier and service networks upstream.
- » **Colombia:** Create an inter-ministerial coordination platform among MME, MADS, MINCIT, and the Ministry of Foreign Affairs to attract Chinese investment in strategic projects. Establish technical partnerships between Colombian and Chinese universities for research and exchange.
- » **Peru:** Work towards developing long-term strategic planning to coordinate mining, energy and industry by building alliances between key companies in each of these sectors. Regarding the transition to electromobility, while it seems early to propose specific incentives, it is important to encourage more public discussion of this alternative, especially for public transportation, and the value-added activities the EV value chain can bring. Although there is strong resistance from vested interests, the new Chancay Port and adjacent industrial parks open a space for more discussion of collaboration with China in this area.

5. Work jointly towards developing a pipeline for new renewable energy projects:

The limited Chinese involvement in new renewable projects is at least partly a result of the lack of availability of ready-to-invest projects within national pipelines. To better leverage Chinese expertise in renewable energy generation, Latin American governments as well as national and regional DFIs could partner with Chinese DFIs to jointly develop and expand renewable project pipelines, including through Public Private Partnerships (PPPs)

or Power Purchase Agreements (PPAs). Such a pre-feasibility study facility is being developed with participation by Chinese stakeholders for Southern Africa, indicating the potential to develop a similar model for the region (BRIGC, 2025). This would move cooperation beyond opportunistic acquisitions and towards more long-term strategic goals.

Main country-specific recommendations:

- » **Argentina:** Incorporate mining–energy complementarities in state planning to enable renewable energy deployment and address logistical bottlenecks. Given recent changes to Argentina's Renewable Energy Regime (RER) that have increased project financing risk, developing a pipeline of bankable projects will require mechanisms such as focusing near-term renewable energy generation where there are guaranteed off-takers such as existing and new mining projects.
- » **Chile:** Incorporate local communities in the design of the clean energy strategy and participation in the benefits of the energy transition.
- » **Colombia:** Implement existing cooperation agreements with China through an energy cooperation roadmap that identifies priority sectors and sets transparent guidelines for engagement aligned with national transition goals.
- » **Peru:** Support expansion of renewables through public tenders for non-conventional technologies with periodic reviews, establish long-term PPAs with large consumers, and set wind and solar investment commitments with measurable targets for installed capacity.

Ultimately, Latin America's ability to translate global demand for transition minerals into sustained and inclusive development depends primarily on domestic governance capacity. It also depends on how external partners engage with these local frameworks, and with complex realities on the ground. For Chinese companies and financial institutions, the region's minerals and energy sectors present opportunities for longer-term involvement aligned with host-country development priorities. Where regulatory standards are clear and enforceable, Chinese investors can support improved ESG performance, value-added activities, and expanded access to clean energy. Where frameworks are weak or fragmented, however, their investments risk reinforcing existing social conflict and extractive dependence. Hence the recommendations presented here prioritize consolidating and

enforcing standards, strengthening consultation and monitoring, and directing investment toward productive linkages and equitable access to clean energy.

Given the breadth of these recommendations, there are also significant roles to be played by academic and civil society researchers. To meet the scale of the moment, scholars should embrace opportunities to collaborate across national contexts and disciplines in order to trace progress on the pathways laid out here. In an era of intensifying geopolitical and resource competition, trans-Pacific cooperation will be an especially crucial tool for cultivating shared understandings and policy agendas. This analysis, and the underlying national and regional working papers, aim to contribute to this international collaboration.

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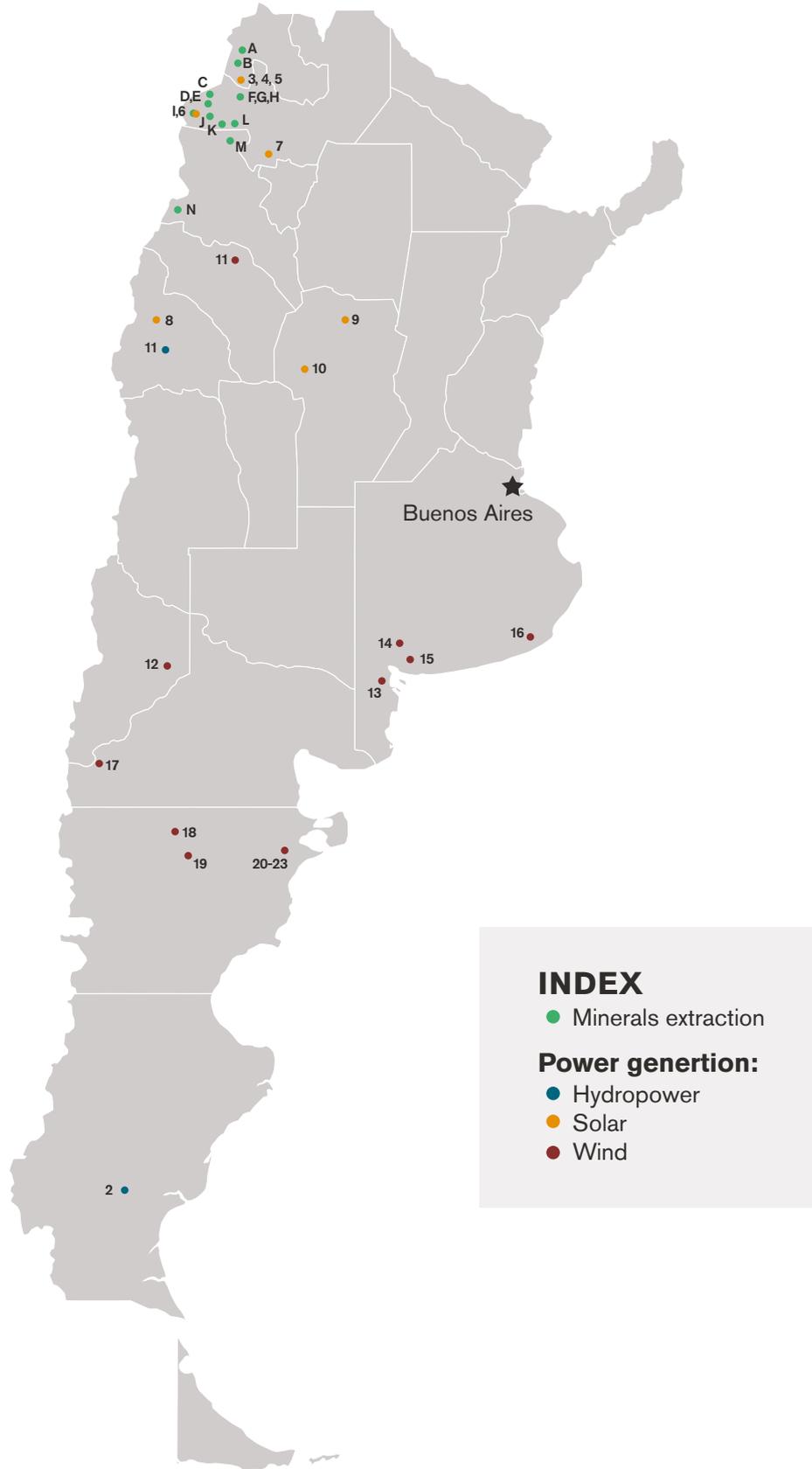
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Appendix: Project Maps

A. Argentina



Argentina Map Index

Project	Chinese Company (Subsidiary)	Status	Type	Detail
MINING				
A. Solaroz	CNGR Advanced Material Co., Ltd.	Pipeline	Equity	Lithium
B. Cauchari-Olaroz	Ganfeng Lithium Co., Ltd.	Oper.	Equity	Lithium
C. Incahuasi Moncho	Ganfeng Lithium Co., Ltd.	Pipeline	Equity	Lithium
D. Doncella	Hanaq Group	Pipeline	Equity	Lithium
E. Arizaro Norte	Hanaq Group	Pipeline	Equity	Lithium
F. Sal de la Puna (SDLP)	Ganfeng Lithium Co., Ltd.	Pipeline	Equity	Lithium
G. Pozuelos Pastos Grandes (PPG)	Ganfeng Lithium Co., Ltd.	Pipeline	Equity	Lithium
H. Pastos Grandes	Ganfeng Lithium Co., Ltd.	Pipeline	Equity	Lithium
I. Mariana I, II, III	Ganfeng Lithium Co., Ltd.	Oper.	Equity	Lithium
J. Salar Arizaro	Tibet Summit Resources Co., Ltd.	Pipeline	Equity	Lithium
K. Hombre Muerto Norte (HMN)	Chengdu Chemphys Chemical Industry Co.	Pipeline	Equity	Lithium
L. Sal de los Ángeles	Tibet Summit Resources, Ltd.	Pipeline	Equity	Lithium
M. Laguna Caro	JinYuan Holding Group	Pipeline	Equity	Lithium
N. Tres Quebradas	Zijin Mining Group Ltd.	Pipeline	Equity	Lithium
POWER				
Hydropower				
1. El Tambolar	PowerChina (Sinohydro)	Constr.	EPC	70MW
2. Kirchner y Cepernic	Gezhouba	Constr.	EPC	1310MW
Solar				
3. Cauchari I	PowerChina	Oper.	EPC	105MW
4. Cauchari II	PowerChina	Oper.	EPC	105MW
5. Cauchari III	PowerChina	Oper.	EPC	105MW
6. Mariana	Ganfeng Lithium Co., Ltd.	Ann.	IPP, EPC	120MW
7. Cafayate	Canadian Solar	Oper.	EPC	97,6MW
8. Iglesia-Estancia Guañizuil	JinkoSolar Holding Co. Ltd.	Oper.	IPP	80MW
9. María de Río Seco	PowerChina	Oper.	EPC	35MW
10. Cura Brochero	China Triumph Intl. Engineering Co., Ltd.	Oper.	EPC	30MW
Wind				
11. Arauco	PowerChina	Oper.	EPC	400MW
12. Los Meandros	Envision Energy	Canc.	IPP	125MW
13. Vientos del Secano	Envision Energy	Oper.	IPP	50MW
14. García del Río	Envision Energy	Oper.	IPP	10MW
15. Pampa	PowerChina (Sinohydro)	Canc.		
16. Miramar	Goldwind Science and Technology	Oper.	IPP, EPC	96MW
17. Cerro Alto	Envision Energy	Canc.	IPP	50MW
18. Gastre	Beijing Construction Engineering Group Intl (BCEGI)	Canc.	EPC	1350MW
19. El Angelito	Sinowind Technologies	Canc.	IPP	200MW
20. Loma Blanca I	Goldwind Science and Technology, PowerChina	Oper.	IPP, EPC	52MW
21. Loma Blanca II	Goldwind Science and Technology, PowerChina	Oper.	IPP, EPC	52MW
22. Loma Blanca III	Goldwind Science and Technology, PowerChina	Oper.	IPP, EPC	52MW
23. Loma Blanca IV	Goldwind Science and Technology, PowerChina	Oper.	IPP, EPC	103MW

B. Chile



INDEX

● Minerals extraction and processing

Power generation:

● Hydropower

● Solar

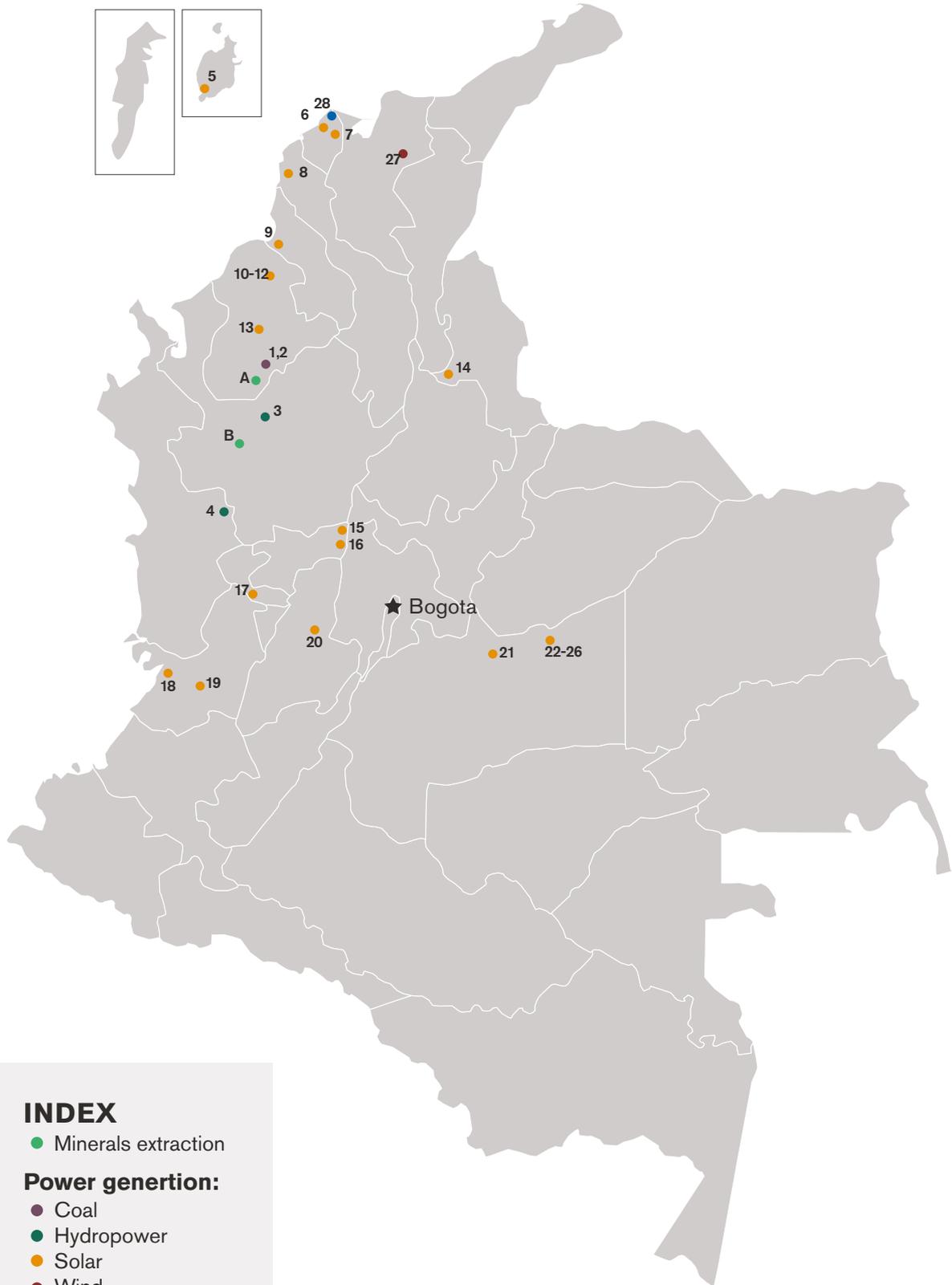
● Wind

Chile Map Index

Project	Chinese Company (Subsidiary)	Status	Type	Detail
MINING AND PROCESSING				
A. SQM: Salar del Carmen	Tianqi (22% stake in SQM)	Oper.	Equity	Lithium
B. SQM: Salar del Atacama	Tianqi (22% stake in SQM)	Oper.	Equity	Lithium carbonate, hydroxide
POWER				
Hydropower				
1. Chacayes	Pacific Hydro (parent company: State Power Investment Corp.)	Oper.	IPP	111MW
2. Coya, Pangal	Pacific Hydro	Oper.	IPP	76MW
3. La Higuera	Pacific Hydro (50%)	Oper.	IPP	155MW
4. La Confluencia	Pacific Hydro	Oper.	IPP	163MW
5. Rucalhue	China Three Gorges Corp.	Pre-Con.	IPP	90MW
Solar				
6. Arica I	Sky Solar Holdings, Ltd.	Canc.	IPP	18MW
7. CEME1	PowerChina	Oper.	EPC	480MW
8. Solar Wing	State Power Investment Corp. (SPIC)	Pre-Con.	IPP	184MW
9. Desierto de Atacama	State Power Investment Corp. (SPIC)	Constr.	IPP	293MW
10. Don Patricio	State Power Investment Corp. (SPIC)	Pre-Cons.	IPP	200MW
Wind				
11. Amolanas	State Power Investment Corp. (SPIC)	Pre-Con.	IPP	199MW
12. Punta Sierra	State Power Investment Corp. (SPIC)	Oper.	IPP	82MW

Not included: Sky Solar Holdings, Ltd. participated in EPC contracts for several small solar projects under the Programa Pequeños Medios de Generación Distribuida (PMGD).

C. Colombia



INDEX

● Minerals extraction

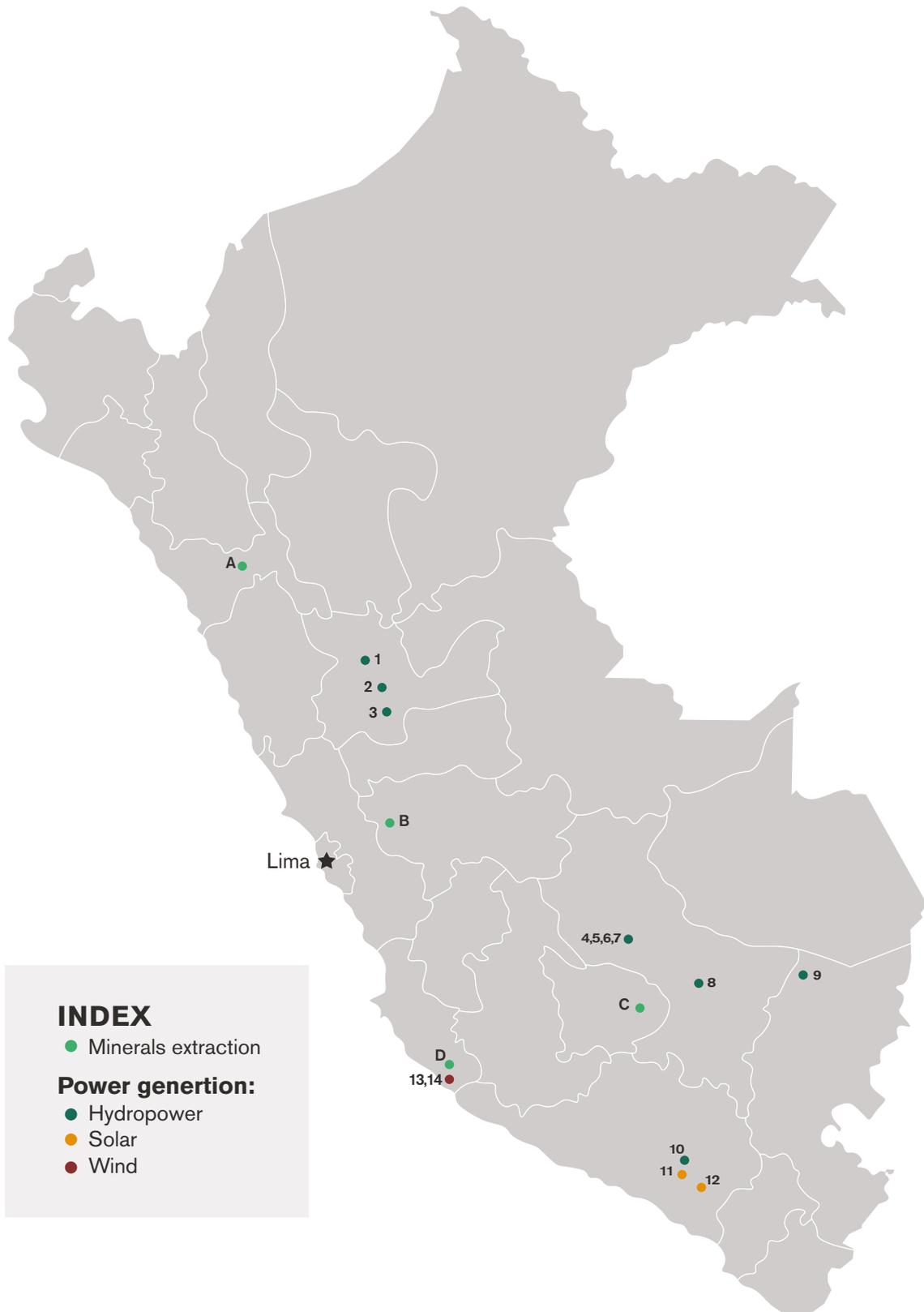
Power generation:

- Coal
- Hydropower
- Solar
- Wind
- Biomass

Colombia Map Index

Project	Chinese Company (Subsidiary)	Status	Type	Detail
MINING				
A. Alacrán	JCHX Mining Management	Oper.	Equity	Copper, silver, gold
B. Buriticá	Zijin	Oper.	Equity	Gold
POWER				
Coal				
1. Gecelca 3	Dongfang Turbine Co., Ltd.	Oper.	EPC	164MW
2. Gecelca 3.2	Dongfang Turbine Co., Ltd.	Oper.	EPC	270MW
Hydropower				
3. Hidroituango	PowerChina (Yellow River Eng. Co.)	Oper.	EPC	2400MW
4. Cuenca Atrato Alto (Talasa project)	China Three Gorges Corp.	Constr.	IPP	170.9MW
Solar				
5. Ecoparque Solar Providencia	PowerChina	Constr.	EPC	1.8MW
6. Proyecto Solar Baranoa I (Yarumo)	China Three Gorges Corp., PowerChina	Oper.	IPP, EPC	19.9MW
7. Parque Solar Guayepo III	PowerChina	Oper.	EPC	80MW
8. Parque Solar de la Refinería de Cartagena (Reficar)	PowerChina	Constr.	EPC	23MW
9. Proyecto Pétalo de Sucre I	Henan BCCY Environmental Energy Co.	Oper.	IPP	9.9MW
10. Planta Solar Tikuna F1	PowerChina	Constr.	EPC	59.5MW
11. Planta Solar Tikuna F2	PowerChina	Constr.	EPC	59.5MW
12. Planta Solar Tikuna F3	PowerChina	Constr.	EPC	119MW
13. Proyecto Pétalo de Córdoba II	Henan BCCY Environmental Energy Co.	Oper.	IPP	9.9MW
14. Proyecto Pétalo de César I	Henan BCCY Environmental Energy Co.	Oper.	IPP	9.9MW
15. Proyecto Solar Doña Juana	PowerChina (Sinohydro)	Constr.	EPC	7.7MW
16. Parque Solar Tepuy	PowerChina	Oper.	EPC	83MW
17. Proyecto Solar San Francisco	PowerChina (Sinohydro)	Constr.	EPC	8.2MW
18. Proyecto Solar Andalucía	PowerChina	Oper.	EPC	10MW
19. Celsia Solar Palmira III	PowerChina	Oper.	EPC	12.7MW
20. Complejo Solar Escobal (I-V)	PowerChina	Constr.	EPC	128MW
21. Parque Solar Urrá	PowerChina (Lux Power 2022, JV with Luxim Ingeniería)	Constr.	EPC	19.9MW
22. Bosques de Los Llanos (I-V)	Trina Solar	Oper.	EPCM	134MW
Wind				
27. Parque Eólico Las Acacias	PowerChina	Constr.	EPC	240MW
Biomass				
28. Relleno Sanitario Los Pocitos	Henan BCCY Environmental Energy Co.	Constr.	IPP	5.3MW

D. Peru



Peru Map Index

Project	Chinese Company (Subsidiary)	Status	Type	Detail
MINING				
A. La Arena I	Zijin Mining Group Co., Ltd.	Oper.	Equity	Copper, gold
B. Toromocho	Aluminum Corporation of China (Chinalco)	Oper.	Equity	Copper
C. Las Bambas	Minerals and Metals Group (MMG)	Oper.	Equity	Copper
D. Marcona	Shougang Group Co., Ltd.	Oper.	Equity	Iron
POWER				
Hydropower				
1. Belo Horizonte	Zhong Hong International Engineering, China Rainbow International Investment	Study	IPP	180MW
2. Chaglla	China Three Gorges Corp. (Empresa de Generación Huallaga S.A.)	Oper.	IPP	456MW
3. Huallaga I	China Three Gorges Corp. (Empresa de Generación Huallaga S.A.)	Study	IPP	392MW
4. Santa Teresa	China Three Gorges Corp. (Inland Energy S.A.C.)	Oper.	IPP	98.2MW
5. Santa Teresa, Expansión	China Three Gorges Corp. (Inland Energy S.A.C.)	Study	IPP	40.4MW
6. Santa Teresa 2	China Three Gorges Corp. (Inland Energy S.A.C.)	Study	IPP	280MW
7. Ahobamba	China Three Gorges Corp. (Inland Energy S.A.C.)	Study	IPP	2.3MW
8. Pucará	China Railway Engineering Corporation (CREC)	Study	IPP	178MW
9. San Gabán III	China Three Gorges Corp. (Hydro Global Perú S.A.C.)	Constr.	IPP	205.8MW
10. Lluclla	China Three Gorges Corp. (Inland Energy S.A.C.)	Study	IPP	288MW
Solar				
11. Majes	China Yangtze Power Co., Ltd. (Luz del Sur)	Oper.	IPP	20MW
12. Repartición	China Yangtze Power Co., Ltd. (Luz del Sur)	Oper.	IPP	20MW
Wind				
13. Marcona	China Yangtze Power Co., Ltd. (Luz del Sur)	Oper.	IPP	32.1MW
14. Tres Hermanas	China Yangtze Power Co., Ltd. (Luz del Sur)	Oper.	IPP	97.2MW

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