

# Lithium in the new agenda of the European Union and Latin America and the Caribbean: action guidelines for a just and sustainable bi-regional lithium battery chain

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## INTRODUCTION

The production of lithium batteries to powering electric vehicles have become a strategic industry amid the need to take action to mitigate global warming and embarking on projects related to the green transition. With the European Green Deal, the European Union (EU) has committed to reducing carbon emissions by 55% by 2030, and to become climate neutral by 2050. Currently, transport makes up to one quarter of the EU's greenhouse gas emissions. To shift towards a carbon-neutral transport sector, European industries depend on a sustained access to critical raw materials such as lithium. As a consequence of the experiences of distortion and suspension of supply chains during the Covid-19 pandemic and of shortages of inputs due to the energy crisis caused by the War in Ukraine, the European states have stepped up their efforts to diversify trade partners and reduce dependence on highly concentrated supplies. This scenario has created the need to discuss the production of raw materials, the eventual value added in the case of countries that possess the natural resource, and a perspective envisioning more equitable supply chains in the future.

The Latin American countries composing the “Lithium Triangle” - Argentina, Bolivia, and Chile - are held to account for 53% of global lithium resources and 47% of global lithium reserves; at the same time, Argentina, Chile and Brazil currently figure among the largest producers of this mineral. Global demand for such metals has sharply increased, which becomes more understandable when taking into account that the production of one electric vehicle, for instance, involves six times more minerals than a conventional car. This demand has put additional pressure on local communities residing in the exploration areas, as well as on their natural habitats, especially fresh water sources. Unfortunately, thus far most questions regarding due diligence regulations so as to establish and implement relationships of responsibility among all actors involved along the supply chain have remained insufficiently addressed.

At the same time, the push for cleaner energy opens up new economic opportunities for countries exporting critical raw materials, and representatives from Latin American and Caribbean (LAC) countries have underlined their interest to step out of their traditional role as commodity provider, and articulated their expectation that trade cooperation with the EU involves the adding of value, for instance, through investments in infrastructure, technologies, and the building of productive capacities and infrastructures, which in turn, would increase these states’ capacities to improve environmental and social policies in lithium-rich regions. During a Public Conference ‘Regulating Sustainable Supply Chains for a “Green transition”? Possibilities and Limits of Due Diligence Policies for Lithium-ion Batteries’ held on 26 October 2023 in Geneva, Clovis Freire, Economic Affairs Officer at the Division on Technology and Logistics of UNCTAD, affirmed that the big challenge was not so much about bringing sustainability to supply chains, but rather to changing the supply chains so that they would effectively bring value and, thus, ensure shared benefits among all actors involved.

In the context of the EU-CELAC Summit in Brussels in July 2023, both Europe’s interest to secure a diversified and sustained access to critical raw materials with reliable partners and mitigating risks related to dependencies on highly concentrated supplies, and the strategic position of Latin America and the Caribbean as a provider of raw materials which aims to step out of commodity traps of the past have been articulated and summarized under the shared interest to a ‘just’ and ‘green’ transition. The EU-LAC Global Gateway Investment Agenda

and partnership agreements between individual states foresee the promotion of sustainable economies through value creation, the development of infrastructure, national extraction and processing capacities, skills development as well as strengthening private sector investment projects all along the critical raw materials value chain.

The relevance of trade relations related to critical raw materials among the two regions that constitute the EU-CELAC partnership has encouraged us at the EU-LAC Foundation to accompany, by means of an institutional partnership, the work of a group of researchers involved in the project titled ‘**Green Dealings: negotiations around lithium-ion batteries between North America and South and Europe for a just energy transition**’<sup>1</sup>. Throughout 2022 and 2023, and under the coordination of the Geneva Graduate Institute, researchers from universities based in Europe and South America partnered to explore how more sustainable lithium supply chains could be crafted between raw material producing and consuming regions. With the present policy brief some of the involved researchers have systematized the results of a Delphi study which explores the main challenges to environmental, social and economic sustainability and justice facing lithium mining in salt flats. We would like to thank the authors and entire consortium for this productive cooperation and hope that the insights generated from their research are of high relevance for stakeholders on both sides of the Atlantic.

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1 See: <https://green-dealings.com/>

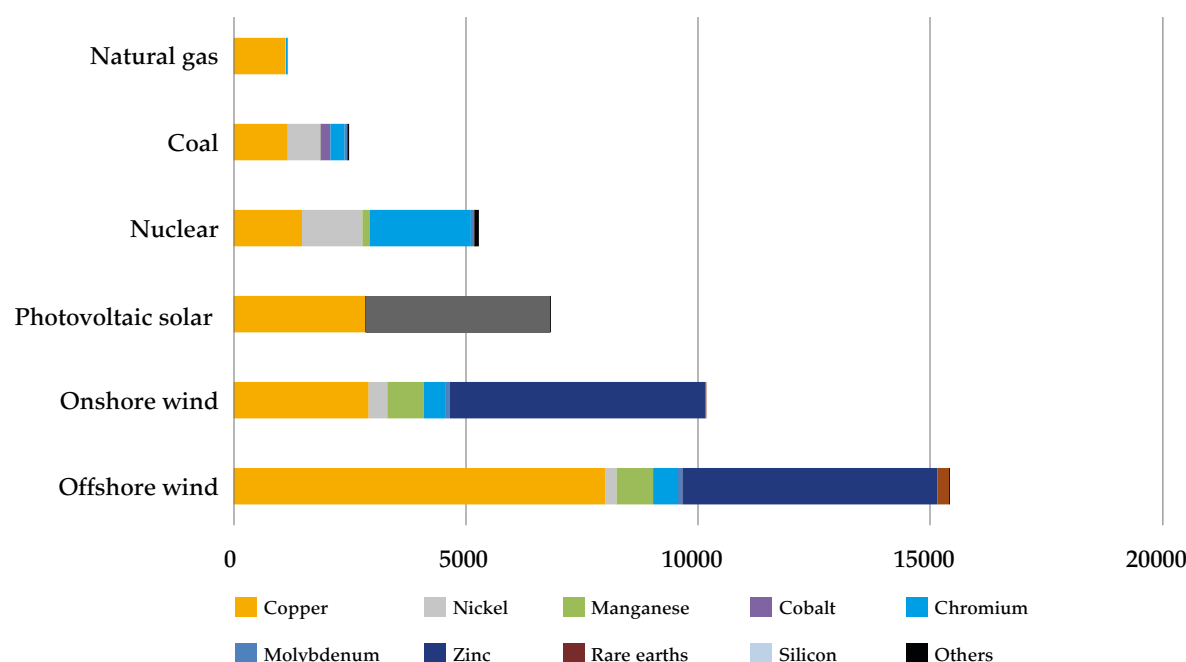
# 1. GREEN AND JUST TRANSITION, CRITICAL MINERALS, AND THE NEW BI-REGIONAL COOPERATION AGENDA

In July 2023, the 3rd EU-CELAC Summit of Heads of State and Government of the European Union (EU) and the Community of Latin American and Caribbean States (CELAC), the President of the European Council and the President of the European Commission was held. The summit’s final declaration addresses several issues on which both regions share values and are committed to cooperate. Several of these issues are aligned with what is commonly referred to as a “just green transition”. Framed within the 2030 Agenda and the UN Sustainable Development Goals, this process seeks to integrate the climate issue into the global development agenda (Sanahuja and Costafreda, 2023). The transition poses major challenges. In a relatively short period of time, it requires the implementation of profound changes in the rules, processes, modes of social relations and productive structures on which the current socio-technical paradigm is based. The notorious tensions that took place at COP 28, held in Dubai, regarding the role of fossil fuels illustrate the challenges facing the Paris Agreement.

One of the challenges posed by the energy transition is that new “clean” technologies, such as electromobility and

renewable energies, which are essential for decarbonising the economy, use a greater quantity and variety of minerals than conventional fossil fuel-based technologies (IEA, 2021) (Figures 1 and 2). This scenario presents an opportunity for cooperation between the two regions. Europe is promoting the construction of large-scale lithium battery cell production plants within its territory. To achieve this, given its high dependence on mineral imports, it needs to ensure a stable and secure supply of raw materials. The Latin American and Caribbean region, for its part, has a wealth of critical raw materials for transition industries: it has 47% of the world’s reserves of lithium<sup>2</sup>, 37% of copper, 35% of molybdenum, 24% of natural graphite, 17% of rare earths and 6% of cobalt (Figure 3). However, the region’s share of global production of these minerals only reaches 37% for copper, lithium, and molybdenum, and is less significant for other minerals such as graphite or cobalt. For the latter, as for nickel, graphite and rare earths, there is a significant gap between geological potential (reserves) and current production. This indicates the need to improve the competitiveness of known deposits to drive the construction and commissioning of new projects that increase production.

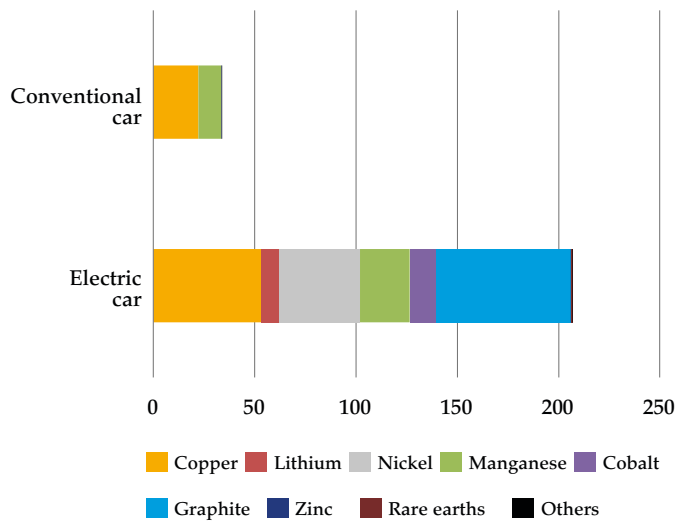
Figure 1. Quantity and variety of minerals used for power generation (Kg/Mwh)



Source: IEA (2021).

2 The estimation is based on USGS reserve data, which includes Chile, Argentina, and Brazil.

**Figure 2. Quantity and variety of minerals used in automotive manufacturing of cars (kilograms per vehicle)**

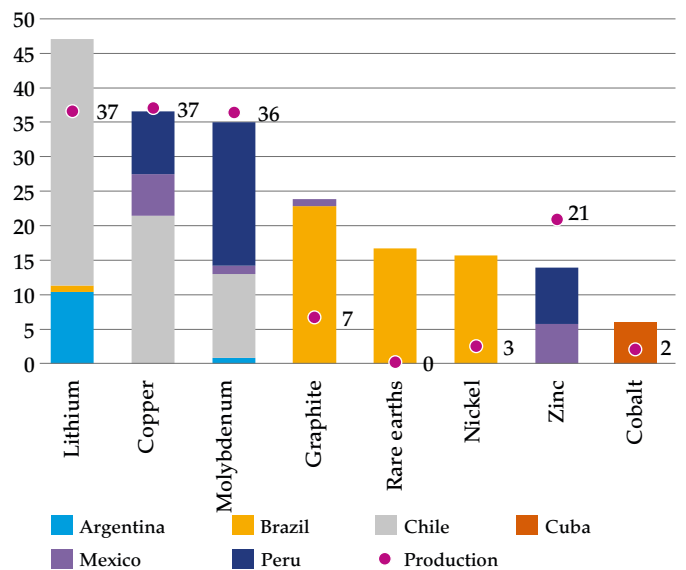


Source: IEA (2021).

However, the opportunities offered by the economic transformation processes of the energy transition bring along challenges that jeopardise the aspirations of a “green and just” transition. For example, the magnitude and speed of the process generate strong increases in the demand for minerals that translate into greater extractive pressure on resource-rich territories, leading to different types of socio-economic and environmental impacts (Petavratzi et al., 2022). It is therefore necessary to develop governance schemes and agreements capable of avoiding the “displacements” that extractive activities can generate, which are a consequence of environmental degradation, increased inequalities, the rupture of social links or the disarticulation of the productive fabric (Kramarz et al., 2021).

In its New EU-LAC Agenda, the Commission acknowledges the historical shortcomings in the bi-regional relationship in order to address these types of challenges and thus proposes the need to develop an agenda that favours a mutually beneficial relationship (European Commission, 2023a). In the words of the EU ambassador to Argentina:

**Figure 3. Latin American countries’ share of global reserves and production of selected critical minerals (in percentages)**



Source: CEPAL (2023).

Europe’s proposal is unprecedented and completely different. It proposes a joint development of the value chains of the minerals covered by the agreement. It is not just a matter of extracting the raw material, but of trying to give it as much added value as commercially possible at the local level, and at the same time serve the export market. Therefore, technology transfer is ensured from the outset (sic).<sup>3</sup>

Taking lithium batteries as a reference case, this paper analyses the pillars on which the new bi-regional agenda around critical minerals is being built. In doing so, it aims to illustrate the challenges that Europe and Latin America and the Caribbean face in building bi-regional value chains that contribute to a sustainable and just transition. The paper is structured in three sections following this introduction. First, it discusses the sustainability and justice challenges facing lithium mining in salt flats. Secondly, it analyses the instruments that the EU has designed to build bi-regional mineral supply chains. Finally, some guidelines for action to contribute to sustainability and justice in the lithium battery value chain are recommended.

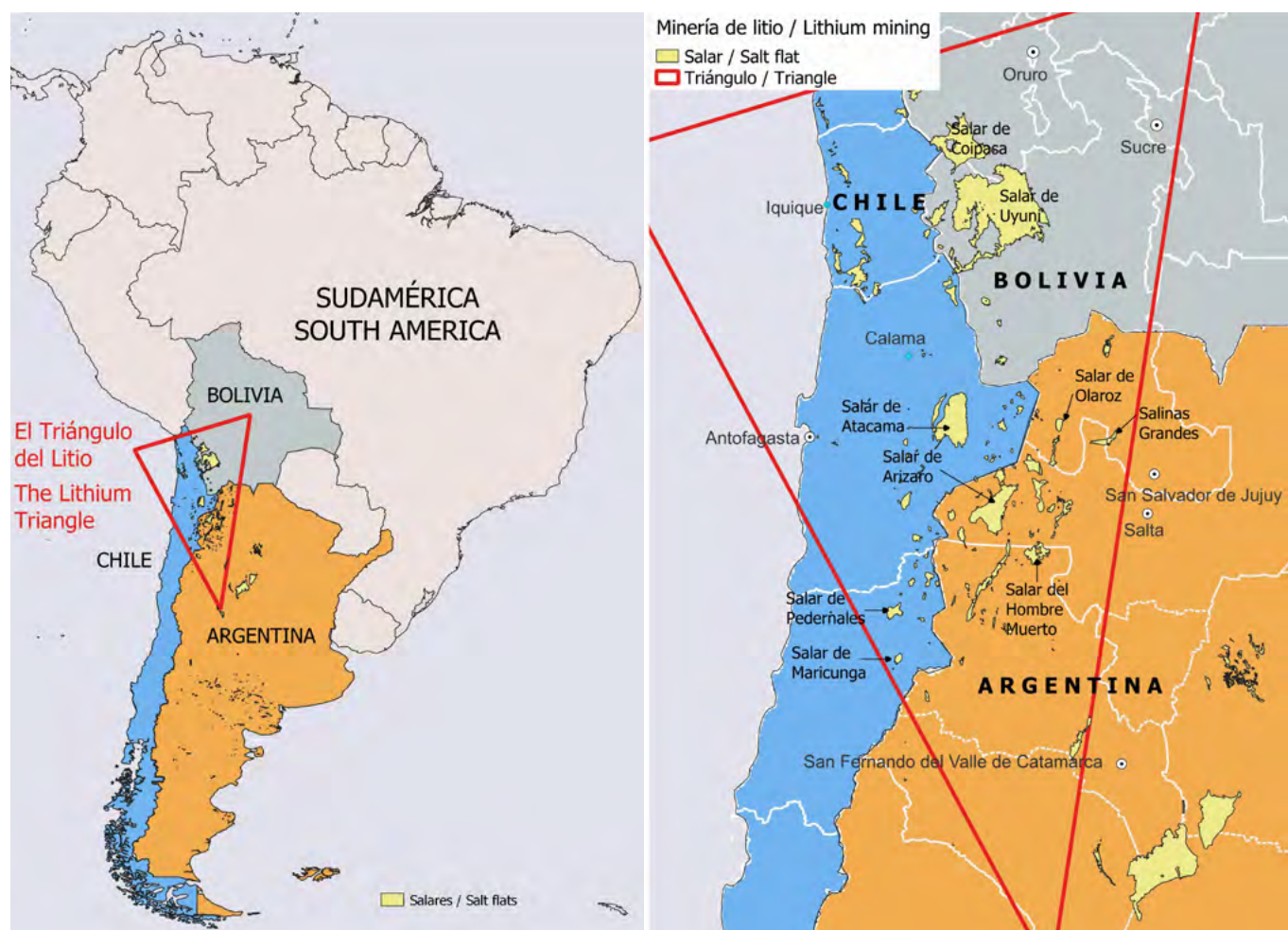
<sup>3</sup> Source: Panorama Minero, Edition 525, Nov. 2023. Our own translation

## 2. CHALLENGES FOR A FAIR, SUSTAINABLE AND MUTUALLY BENEFICIAL BI-REGIONAL LITHIUM BATTERY VALUE CHAIN

Lithium is an irreplaceable resource to produce lithium batteries, currently the predominant technology in the electromobility industry. The International Energy Agency estimates that lithium demand will grow between 13 to 42 times between 2020 and 2040 (IEA, 2021). The fulfilment of the decarbonization goals set by the EU is contingent upon its ability to ensure a secure and stable supply of lithium and other critical and strategic minerals (Carrara et al., 2023). China currently holds a dominant position in this field. This has led to a geopolitical race in which countries aspiring to lead the electromobility industry compete for resources and investment attraction (Kalantzakos, 2020; Riofrancos, 2023).

Argentina, Chile and Bolivia form the 'lithium triangle' (Figure 4), which accounts for 53% of lithium resources and 47% of global lithium reserves (USGS, 2023). In the region, Brazil produces lithium on a smaller scale, while Mexico and Peru are developing their resources in non-traditional lithium deposits. The weight of Latin American countries in production is much lower than their share of reserves and is more geographically concentrated: Chile produces 30.2%, Argentina 4.8% and Brazil 1.7% of global lithium compounds (USGS 2023). However, ongoing investments indicate that the region would increase its share of production, especially in the case of Argentina.

Figure 4. Lithium-rich salt flats in the lithium triangle countries

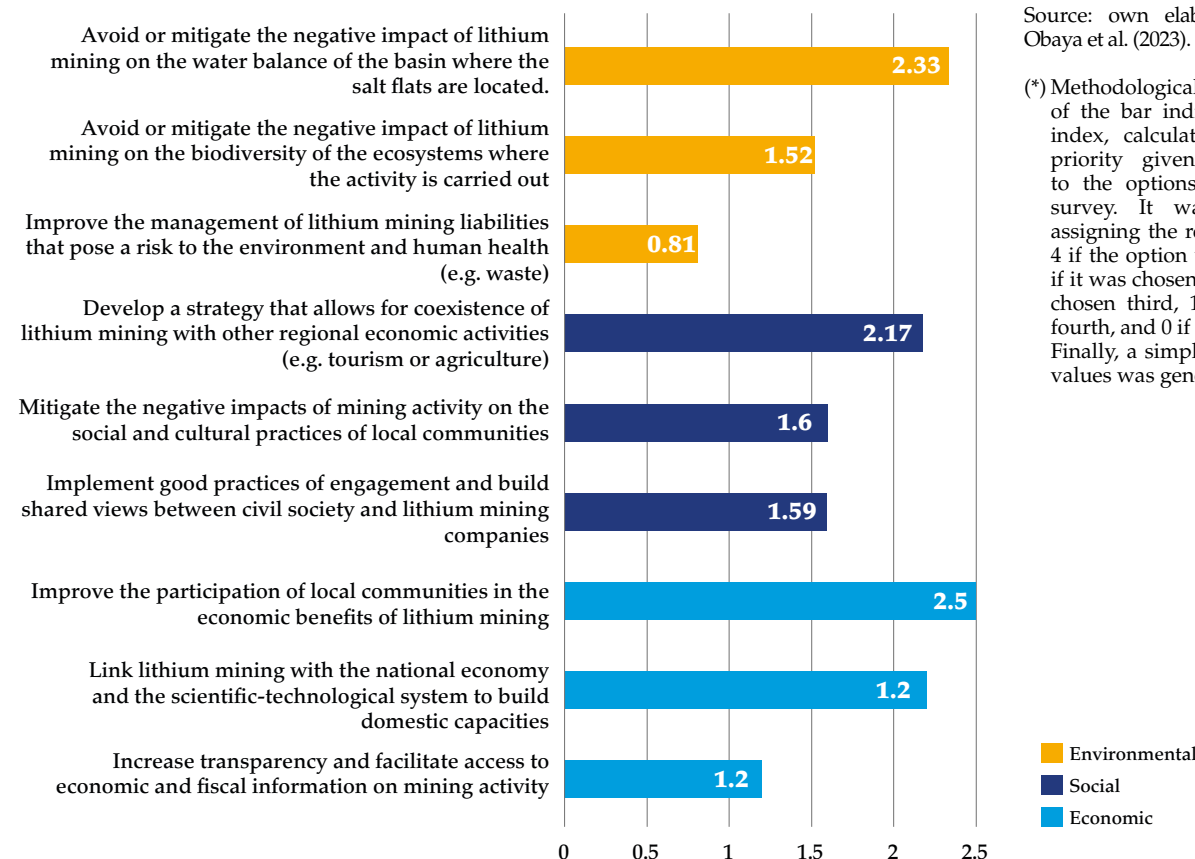


Source: own elaboration based on data from the [Geoportail of CEPAL](#).

As noted, the exploitation of natural resources causes environmental and socio-economic impacts, which are felt most strongly in the areas surrounding the salt flats. In 2023, the bi-regional research project Green Dealings<sup>4</sup> published the results of a Delphi-style survey that explores the main challenges to environmental, social, and economic sustainability and justice facing lithium mining in salt flats (Obaya et al., 2023). The survey involved 141 experts from industry, governments, international agencies, academia, and civil society organisations.<sup>5</sup> Around 61% of these experts were residents of countries within the lithium triangle, approximately 28% lived in Europe and the rest in North America and other regions. The results highlighted a broad agreement that lithium mining in salt flats presents significant sustainability issues that need to be addressed urgently: 77% of the participants considered that measures should be taken to address sustainability issues even if this means slowing down or even suspending mining activity.

Figure 5 presents the main challenges to environmental, social, and economic sustainability, according to the priorities defined by respondents of the survey, summarised in the index included in the graph. In the environmental dimension, the need to avoid or mitigate the impact of lithium mining on the water balance of the salt flats and on the biodiversity of the ecosystems where mining is conducted stands out. In social matters, the most relevant challenge is to develop a strategy that favours the coexistence of lithium mining with other regional economic activities, such as tourism or agriculture. Closely related to the previous challenge, respondents also highlighted the need to mitigate the adverse impacts of mining activity on the social and cultural practices of local communities, which includes respecting their rights and ensuring the implementation of free, prior, and informed consultation with indigenous peoples. Regarding the economic sustainability, two challenges are highlighted: improving the participation of local communities in the economic benefits of lithium mining and linking lithium mining with the productive apparatus and the scientific-technological system in order to develop productive and technological capacities, especially in the countries within the lithium triangle.

**Figure 5. Main challenges for the environmental, social, and economic sustainability of lithium mining in salt flats**



Source: own elaboration based on Obaya et al. (2023).

(\*) Methodological note: The length of the bar indicates the ranking index, calculated based on the priority given by respondents to the options provided in the survey. It was calculated by assigning the response a value of 4 if the option was chosen first, 3 if it was chosen second, 2 if it was chosen third, 1 if it was chosen fourth, and 0 if it was not selected. Finally, a simple average of these values was generated.

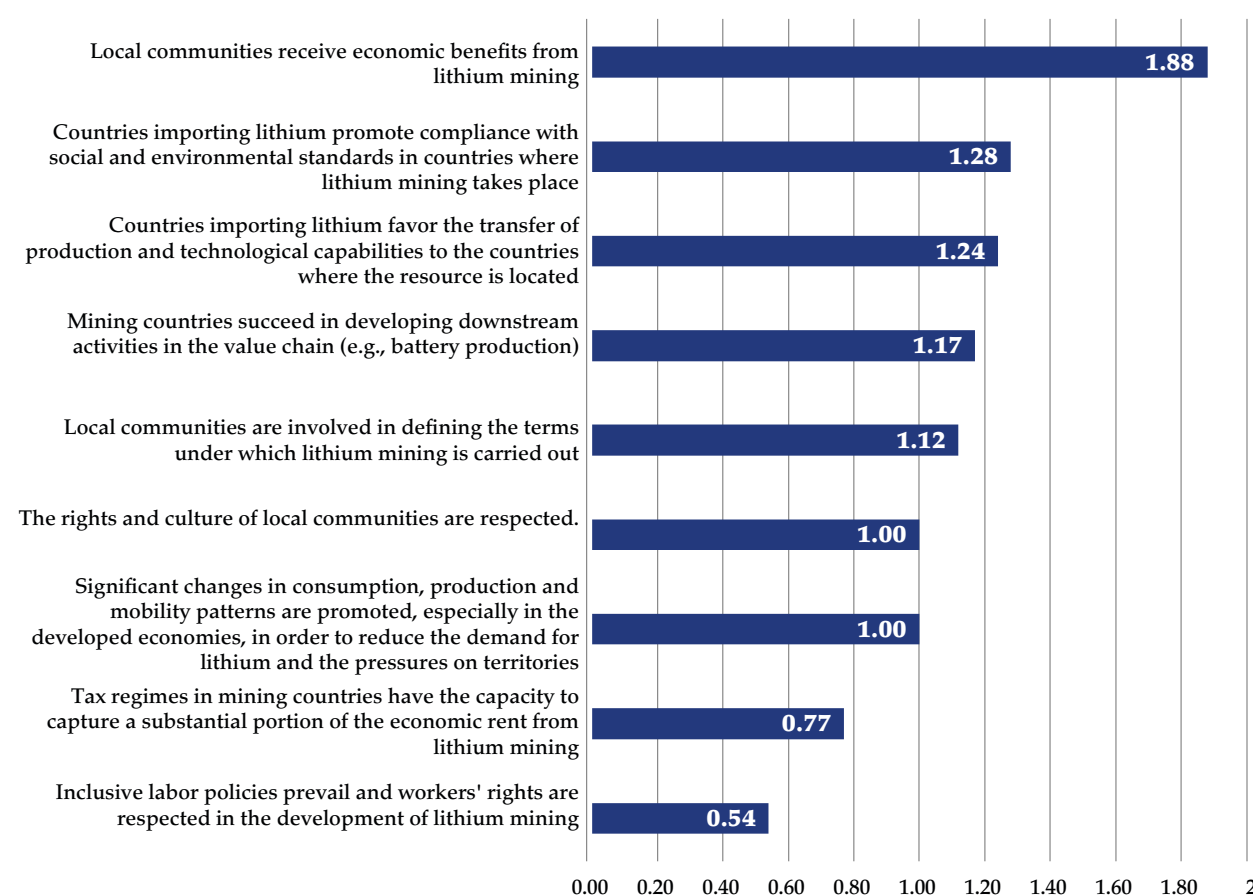
4 The Green Dealings project, comprising European and South American researchers, aimed to study the rules and relations in negotiation and configuration between Europe and South America around the lithium battery value chain and how to move towards a more sustainable and fairer chain. Funding was provided by the Swiss Network for International Studies (SNIS). See details at: <https://green-dealings.com/>

5 Only one member of indigenous communities participated in the survey, which is a weakness in terms of representation. This is largely explained by the digital format of the survey.

The second part of the survey addressed the issue of justice. The panel was asked to indicate the conditions that should be promoted as a priority to make the lithium battery value chain which is just for countries rich in lithium resources. The panel prioritised, first, a condition concerning distributive justice, indicating that it must be ensured that local communities derive economic benefits from lithium mining (Figure 6). Secondly, it identified the need for those countries that demand lithium to promote compliance with social and environmental standards and capacity transfer to producer countries.

In summary, the energy transition offers opportunities for the construction of new lithium battery value chains. However, for these to be sustainable and just, it is necessary to develop public policies and instruments to address the socio-economic and environmental challenges generated by extractive activities in lithium-rich territories.

**Figure 6. Conditions for a just lithium battery value chain**



Source: Delphi survey of the Green Dealings project.

(\*) Methodological note: The length of the bar indicates the ranking index, calculated based on the priority given by respondents to the options offered in the survey. It was calculated by assigning the response a value of 4 if the option was chosen first, 3 if it was chosen second, 2 if it was chosen third, 1 if it was chosen fourth, and 0 if it was not selected. A simple average of these values was then obtained.

### 3. GREEN AND JUST BI-REGIONAL LITHIUM SUPPLY CHAINS: WITH WHICH INSTRUMENTS?

The EU, like other economies aspiring to lead in electromobility, is developing a strategy for building resilient critical mineral supply chains to ensure stable supply for its industries. This strategy integrates different instruments that, in general terms, seek to develop domestic productive capacities and, at the same time, diversify the number of countries supplying resources. In the case of lithium battery chains, one particularity of the European strategy is that it makes the purchase of minerals subject to the certification of responsible production conditions, i.e., compliance with social and environmental parameters and good governance.

In the following sections, the pillars of the strategy under development will be briefly described, considering both domestic tools with an impact on the battery value chain, as well as those specifically designed for the development of the bi-regional relationship in the field of critical minerals. Within the first group, two recently enacted regulatory instruments stand out: the European Critical Raw Materials Act<sup>6</sup>, and the European Battery Regulation<sup>7</sup>. In the second group, the European strategy of external relations is considered, channelled mainly through the Global Gateway<sup>8</sup>, the signing of memoranda of understanding and association with third countries.

#### *i. European Critical Raw Materials Act*

The European Critical Raw Materials Act, passed in December 2023, has as its main objectives to ensure a secure and sustainable supply of those raw materials that have been defined as essential for European industry, while reducing dependence on imports supplied by a single country (Carrara et al., 2023). The law seeks to promote responsible mining production in Europe by encouraging and facilitating the development of projects in the region, as well as investment in research, innovation, and capacity building activities. It also promotes the circular economy, through the recycling of raw materials and the development of a secondary market for minerals.

With regard to external relations, the regulation states that, in order to diversify supply to the EU, the Commission, with the support of the Critical Raw Materials Council, should identify strategic projects in third countries that intend to be actively involved in the extraction, processing or recycling of

strategic raw materials. Such projects would have as their main benefit improved access to funding, and, in return would be required to strengthen the security of the EU's supply chain and to be implemented in a sustainable manner. The legislation also includes a chapter on strategic partnerships. It outlines the criteria for selecting potential partners that contribute to improving the security of mineral supply and cooperation throughout the value chain, beyond extractive activities. Among these criteria, for developing economies, is the potential contribution of a partnership to local added value. The law also provides the framework for the signing of cooperation or partnership agreements and for the deployment of investment projects through the Global Gateway initiative.

#### *ii. European Battery Regulation*

In August 2023, the European Parliament and the Council of the European Union adopted the European Battery Regulation. The regulation includes provisions on five minerals used for battery production: cobalt, copper, nickel, lead, and lithium. The regulation establishes important provisions for countries supplying these inputs, as it contains measures aimed at preventing and reducing the adverse impacts of batteries on the environment and ensuring a safe and sustainable value chain. It therefore establishes the obligation to implement a mechanism aimed at increasing transparency and traceability throughout the battery life cycle by requiring "due diligence" from third parties along the supply chains (Melin et al., 2021). Due diligence refers to obligations related to a social and environmental risks management system that aims to identify, prevent, and address such risks in raw material activities. The norm covers the entire value chain, including subsidiaries and contractors involved in the processing and trading of raw materials.

#### *iii. Memoranda of understanding and partnership with supplier countries*

Between June and July 2023, the EU signed Memoranda of Understanding with Argentina and Chile aimed at establishing a strategic alliance in sustainable raw material value chains, including lithium. The agreements identify five areas of collaboration, for which intervention instruments and are

6 See in: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan/european-critical-raw-materials-act\\_es](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan/european-critical-raw-materials-act_es).

7 See in: <https://eur-lex.europa.eu/legal-content/ES/TXT/PDF/?uri=CELEX:32023R1542>.

8 See in: [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/global-gateway\\_es](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/global-gateway_es)



currently being developed, along with a roadmap for their implementation:

- The integration of sustainable and resilient commodity value chains. This includes, for example, the development of new business models and investment promotion, as well as the creation of joint projects.
- Cooperation in research and development projects along the value chain.
- Cooperation to promote and align environmental, social and governance (ESG) criteria and regulations in accordance with international standards.
- Development of infrastructure projects.
- Capacity strengthening, including human resource skills, along the value chain.

It should be noted that the EU and Chile ratified an association agreement that modernises the one that had been in force since 2003. The new agreement, in line with the 2030 Agenda, includes provisions linked to sustainability.

#### *iv. Global Gateway*

Global Gateway, launched by the EU in 2021, is a public financing strategy for the development of investments in third countries, including those in Latin America and the Caribbean. This strategy emerged as a response to the 'Belt and Road Initiative', a centrepiece of China's foreign policy, with which it expanded its influence abroad, especially in Africa. Through Global Gateway, the EU uses its development aid policy as an instrument to pursue its economic and security interests (Furness and Keijzer, 2022). Global Gateway favours infrastructure development in the digital, energy, transport, health, research, and education sectors.

The amount mobilised by the programme would be around €300 billion, of which some €45 billion would go to Latin America and the Caribbean. One of the contributors to this funding is Team Europe<sup>9</sup>, which brings together the EU, its member states and its financial and development institutions, such as the European Investment Bank and the European Bank for Reconstruction and Development. Global Gateway also aims to coordinate and align international cooperation actions around the energy transition agenda. The main Latin American financing organisations, such as the Inter-American Development Bank (IDB) and the Andean Development

Corporation (CAF), have already shown commitment to support the strategy. The initiative also encourages technical cooperation from European agencies such as the French Development Agency (AFD) and the German Society for International Cooperation (GIZ).

One of the pillars of Global Gateway in Latin America and the Caribbean is the just green transition, which includes investments in critical raw materials and bi-regional value chains. The EU has stated that projects should be designed in such a way that they contribute to increasing added value in the destination country. The European Commission has also indicated that it will provide support to strengthen natural resource governance and corporate transparency practices, as well as ensure that mitigation measures are adopted to reduce the negative social and environmental impacts of extractive activities (European Commission, 2023b).

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<sup>9</sup> See in: [https://international-partnerships.ec.europa.eu/policies/team-europe-initiatives\\_es](https://international-partnerships.ec.europa.eu/policies/team-europe-initiatives_es)

## 4. MORE JUST AND SUSTAINABLE SUSTAINABLE VALUE CHAINS: GUIDELINES AND PROPOSALS

The production profiles of the European Union and Latin America and the Caribbean offer favourable conditions for the construction of value chains that use critical minerals. Currently (December 2023), most of the instruments intended to enhance the bi-regional relationship in this area are currently in the planning and development stages. Their content and implementation modalities have yet to be defined. It is thus a good time to assess the strengths of the strategy, as well as its limitations and uncertainties. Based on this analysis, we will propose some general lines of action that could contribute to building fairer and more sustainable lithium battery value chains.

Firstly, it is important to stress that, in comparison with other regions that demand these raw materials, the EU is making progress in implementing instruments that seek to ensure that they are produced, both within and outside European territory, in a responsible and sustainable manner. It should be noted that the establishment of more rigorous standards has, in principle, a protective effect on the European internal market, compared to regions that are less demanding in terms of production conditions which can increase the supply cost for Europe. This approach undoubtedly contributes to creating favourable conditions for the development of sectors that can potentially have a significant impact on the environment and socio-economic conditions of lithium-producing countries.

The approach the EU is promoting in its Battery Regulation for certifying that critical minerals are extracted responsibly is that of risk management and due diligence, in line with OECD guidelines for responsible supply chains. In essence, it is a perspective which aims to “identify and manage risks with regard to stakeholder engagement activities to ensure that they play a role in avoiding and addressing adverse impacts” (OECD, 2016, p. 11). The focus is on certain environmental risks and on the respect for human rights, with particular emphasis on combating child labour and meeting certain labour standards.

The approach adopted and the instruments envisaged for its implementation have limitations in addressing the sustainability and justice challenges experienced by lithium mining, as derived from the opinion of the experts who participated in the aforementioned Delphi survey (Figures 5 and 6). Therefore, complementary actions are required. For example, the risk management approach is limited in addressing complex environmental issues where knowledge gaps persist and controversies and uncertainties remain, such as the impact of lithium mining on the water balance of salt

flats. The same could be said for other environmental impacts, such as those on biodiversity, or social and economic impacts, such as ensuring adequate consultation with indigenous communities and improving the participation of local communities in the economic benefits of mining. Therefore, we believe that the risk management and certification approach should be complemented by a cooperative strategy for capacity building in lithium-rich countries. This pillar is present in the memoranda of understanding signed with Chile and Argentina, but instruments and projects for its implementation have not yet been developed.

We consider that the focus of this capacity development agenda should be directed primarily towards government entities in charge of resource management. In the Delphi survey, it was highlighted that the main challenges in terms of sustainability governance are government monitoring and oversight capacities, transparency and access to information, the implementation of free, prior and informed consultation with indigenous peoples, and citizen participation in mining projects (Obaya et al., 2023).

In addition, bi-regional cooperation should be developed for the development of productive, scientific, and technological capacities. The transfer of productive and technological capacities from lithium-demanding countries such as the EU to resource-rich countries is among the priority issues for the construction of a fair chain (Figure 6). Cooperation should include activities along the entire value chain. Regarding the upstream segment of the value chain, some areas of intervention that would have a special impact on environmental sustainability can be identified:

- 1. Strengthen public and private research on the environmental impacts of lithium mining on the water balance of salt flats.** The issue of water is the one that raises the greatest concern among experts and, especially, civil society. The situation in each country within the lithium triangle is different. In general terms, a public system of baselines and data should be strengthened that serves to understand the specific hydrological and hydrogeological aspects of the salt flats. It is crucial for these systems to be backed by analytical models. The design and monitoring of these models can benefit from the involvement of external actors, such as public universities. One of the objectives should be to contribute to a better understanding of the work of national or sub-national regulatory authorities and thus build greater trust.

2. **In line with the requirements outlined in Chile’s National Lithium Strategy, it would be desirable to allocate more resources to research, for instance, through public-private collaboration, in the development of technological innovations in production processes.** This includes direct lithium extraction technologies as well as existing evaporite technologies, where improvements that meet criteria of optimisation and, at the same time, sustainability could be developed. For example, joint research between public and private actors on the management of depleted brine and process waste could be promoted.
3. **Research to harness critical or strategic by-products.** It is suggested to encourage the formation of public-private research consortia for the development of innovative production processes aimed at assessing the economic feasibility of co-producing other compounds present in brine (by-products). This point is prioritized, for instance, in the Chilean National Lithium Strategy. This becomes especially relevant if the potential by-products are also minerals classified as critical or strategic.
4. **Promote the development of downstream links in the value chain in South American territory.** Among experts, the prevailing view is that the economic sustainability of mining, as well as justice along the lithium battery value chain, require the development of productive and technological capacities that go beyond extractive activities. In this regard, Chile has included clauses in the renegotiated contracts with SQM and Albemarle in which it reserves the right to bid a quota for local processing at a preferential price. During 2023, the Chinese companies BYD and Tsingshan won the tenders for the quota corresponding to SQM. In Argentina, the technology company Y-TEC promotes the domestic production of the different components of battery cells and has developed a small-scale plant to manufacture battery cells. Y-TEC is also moving in the direction of manufacturing Lithium Iron Phosphate cathode material (LFP). Therefore, it is necessary to explore how the deepening of the bi-regional relationship can contribute to the development of downstream links in the value chain in South American territory. These measures should be complemented by establishing a regional electromobility market capable of generating demand and providing favorable scale conditions for the South American automotive industry.

**Implement principles of consultation and participation of indigenous peoples and communities.** We also contend that within the bi-regional cooperation agenda on the lithium value chain, certain sustainability and justice issues, which have hitherto not received adequate attention, should be treated as a priority. In particular, the survey highlights the importance of two questions: the participation of local communities in the economic benefits generated by mining activity, and the consultation processes of indigenous communities regarding the possibility of developing strategic mining projects. Both in Chile, in the Atacama salt flat, and in Argentina, for example, around the Guayatayoc lagoon, there is a history of intense conflict with indigenous communities due to the lack of adequate consultation, which has led to the paralysis or suspension of lithium mining projects. In this context, the voluntary implementation of rigorous responsible mining standards such as IRMA can have a positive impact. However, we understand that they are complementary to the local institutions and cannot be considered a sufficient condition to certify that the consultation has been carried out properly. For this, we think it is necessary to support the development of an institutional system capable of assuring to civil society that administrative procedures under state responsibility are modernized and align with the requirements of international best practices in consulting indigenous communities.

**Develop a strategic and coordinated vision for sustainable extractive activities among countries that supply lithium.** Finally, we identify an important asymmetry in the bi-regional relationship in terms of the capacity to develop a strategic vision on a green and just transition and to design a policy agenda that underpins this process. On the one hand, the European Union has defined its strategic objectives, begun to adapt its legislation, and initiated the design of an action plan to advance its green and just transition. On the other hand, the progress of South American countries is uneven in this area. Chile has recently launched its National Lithium Strategy, which establishes priority areas for work (Government of Chile, 2023). In the case of Bolivia, the strategy, at least in its public document version, dates back to 2010 (GNRE, 2011) and has undergone several modifications since then (Obaya, 2021). Argentina, on the other hand, has not developed a strategic vision for lithium, which contemplates the different dimensions linked to the activity. This asymmetry represents a limitation when designing action plans for the strategic areas identified by both regions, as well as identifying projects that could be designated as “strategic” (according to the criteria established in the European Critical Raw Materials Act) and benefited by the Global Gateway Investment Agenda.

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