

TC Document

I. Basic Information

▪ Country/Region:	REGIONAL
▪ TC Name:	A future-ready region: critical minerals for growth
▪ TC Number:	RG-T4066
▪ Team Leader/Members:	Nunes Da Cunha, Natascha (INE/INE) Team Leader; Sucre Pantin, Carlos Gustavo (INE/INE) Alternate Team Leader; Balza Angulo, Lenin Humberto (INE/INE); Carolina Ferreira (INE/ENE); Garcia Nores, Luciana Victoria (INT/RIU); Hoffman, Nathalie Alexandra (SEC/TRD); Jorge Luis Malpartida (INE/ENE); Mario Huapaya (INE/ENE); Palchisaca Dominguez, Magali Maricela (INE/CEC); Vila Saint-Etienne, Sara (LEG/SGO) Team Leader; Sucre Pantin, Carlos Gustavo (INE/INE) Alternate Team Leader; Balza Angulo, Lenin Humberto (INE/INE); Carolina Ferreira (INE/ENE); Garcia Nores, Luciana Victoria (INT/RIU); Hoffman, Nathalie Alexandra (SEC/TRD); Jorge Luis Malpartida (INE/ENE); Mario Huapaya (INE/ENE); Palchisaca Dominguez, Magali Maricela (INE/CEC); Vila Saint-Etienne, Sara (LEG/SGO) Team Leader; Sucre Pantin, Carlos Gustavo (INE/INE) Alternate Team Leader; Balza Angulo, Lenin Humberto (INE/INE); Carolina Ferreira (INE/ENE); Garcia Nores, Luciana Victoria (INT/RIU); Hoffman, Nathalie Alexandra (SEC/TRD); Jorge Luis Malpartida (INE/ENE); Mario Huapaya (INE/ENE); Palchisaca Dominguez, Magali Maricela (INE/CEC); Vila Saint-Etienne, Sara (LEG/SGO); Walter, Martin (INE/CAR)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	02/16/2023
▪ Beneficiary:	México, Perú y Argentina.
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC SDP Window 2 - Infrastructure(W2B)
▪ IDB Funding Requested:	US\$200,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	April, 2023
▪ Types of consultants:	Individual/Firms
▪ Prepared by Unit:	INE/ENE-Energy
▪ Unit of Disbursement Responsibility:	INE/ENE-Energy/INE/ENE
▪ TC included in Country Strategy (y/n):	N
▪ TC included in CPD (y/n):	N
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Productivity and innovation; Economic integration; Institutional capacity and rule of law; Environmental sustainability; Gender equality

II. Objectives and Justification

- 2.1. The objective of this technical cooperation (TC) project is to identify effective actions, tools, and frameworks that governments in Latin America and the Caribbean (LAC) can adopt to boost strategic investments in critical minerals and their value chains in support of global decarbonization efforts required to address climate change.

In that regard, the project will first evaluate the issues that affect the development of deposits of critical minerals. Second, it will facilitate dialogue among decision and policymakers of the mining sector of LAC. This will ensure that the results from the evaluation are translated into applicable and relevant policies, reforms, and tools, which ultimately lead to the design and adoption of country-specific roadmaps with strategies aimed at developing critical minerals and their value chains.

- 2.2. The decarbonization of the global economy is a pillar in the fight against climate change and demands a significant increase in the production of minerals that are critical inputs for electrification, digitalization, and renewable energy technologies.¹ On a global scale, while currently planned investments would generate significant increases in mineral production, capacity would still fall far short of the mineral requirements set by global net-zero emissions scenarios to 2050.² The biggest difference is in the case of lithium, for which the main demand comes from the transportation sector, where current mining expansion projections would only cover two-thirds of the needs between now and 2030. As is well known, construction times for new mines are long and uncertain, and substantial investments would be needed over the next three years to close this gap.³
- 2.3. LAC has high levels of reserves and production of critical minerals for the energy transition, such as copper and lithium, but also nickel, manganese, zinc, graphite, rare earth, among many others. The region, however, must and can attract greater investment in line with its potential. Related to copper, the region accounts for 40% of world production, led by Chile (27%), Peru (10%); and Mexico (3%). According to the IEA, the region's share of world copper exploration spending has risen from 35% to 45% in the last decade, indicating the potential for further production increases.⁴ In lithium, the region supplies 35% of the world's production, led by Chile (26%) and Argentina (6%), and holds more than 60% of the world's lithium resources. Global lithium production in 2022 increased by 21% to approximately 130,000 tons from 107,000 tons in 2021 in response to strong demand from the lithium-ion battery market and increased prices of lithium.⁵ Due to the strong increase in lithium demand and prices in 2022, there is considerable interest in developing new operations and increasing the production capacity of existing ones. LAC also has potential in the production of other minerals such as graphite, nickel, manganese, and rare earth elements. In fact, Brazil has about one-fifth of the world's reserves of these resources, but its production to date has been rather low. In short, there is a real opportunity to increase mineral production capacity and drive a process of prosperity and productive transformation so that the countries converge towards higher levels of development, sustainability, and equity.
- 2.4. In this context, LAC faces a unique and transitional opportunity to take advantage of its rich mineral endowment, positioning itself as a reliable source of a set of critical minerals and as an attractive investment destination with a transformative impact

¹ See IDB (2022) [Apalancando el crecimiento de la demanda en minerales y metales por la transición energética a una economía baja en carbono](#) or The World Bank (2020) [Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition](#).

² See IEA (2023): [Energy Technology Perspectives 2023](#).

³ See IEA (2023): [Energy Technology Perspectives 2023](#).

⁴ IEA (2023), Latin America's opportunity in critical minerals for the clean energy transition, IEA, Paris <https://www.iea.org/commentaries/latin-america-s-opportunity-in-critical-minerals-for-the-clean-energy-transition>

⁵ USGS, 2023. <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023.pdf>.

on the region's economies. It is necessary to expand mining production in a sustainable manner, to promote more and better investments in the industry, and to equitably generate governance, technological, and labor capacities and conditions conducive to the creation and retention of long-term value in the sector. For example, although much progress has been made towards increasing the share of women participating in the mining sector and its value chains – at the mine site, at corporate levels, and in public institutions – it remains a male-dominated sector with much work remaining to improve gender equity. In addition, promoting the development of value chains in the mining industry, their consolidation in the region, and their integration into the broader economy is essential to encourage a transformation of the sector that incorporates knowledge and innovation.

- 2.5. This TC is aligned with the Bank's Institutional Strategy Update 2020-2023 (AB-3190-2) by aligning itself with the challenge of developing: (i) Productivity and Innovation, by promoting the development of value chains in the mining industry nationally and their consolidation and integration in the region; and (ii) Economic integration, by promoting the development of critical materials value chains at the regional level. The TC is also aligned with two cross-cutting areas: (i) Climate Change and Environmental Sustainability, by contributing to increase a virtuous and sustainable production of minerals for the energy transition, promoting better investments, fostering the development and consolidation of sustainable value chains in the industry as well as driving the transformation of the sector to support countries in the fight against climate change; and (ii) institutional Capacity and Rule of Law, by providing responsible agencies with information through the generation of technical knowledge that identifies effective actions, tools, and frameworks that LAC governments can adopt to leverage strategic investments in critical minerals and their value chains to support their efforts and the global decarbonization efforts required to address climate change. Moreover, this TC is aligned to the Corporate Results Framework (CRF) 2020-2023 (GN-2027-12) through the indicator of Countries with strengthened gender equality and diversity policy frameworks. Furthermore this TC is consistent with the action lines outlined in the Extractive Sector Framework Document (GN-3028-2), which prioritizes environmental sustainability, value generation, sector institutional strengthening, and facilitating the energy transition. The TC is also aligned with Window 2 of the OC SDP - Infrastructure (W2B) (GN-2819-14) in the sense of (i) identifying and removing barriers to investment in infrastructure projects, as it seeks to attract potential investments in the LAC mining sector and leverage them to close infrastructure gaps in the region, as well as to analyze the challenges to develop and optimize the potential of critical minerals in the region and identify the aspects that facilitate and hinder progress in the creation of value chains for these raw materials; and (ii) support improvements in the legal and regulatory frameworks applicable to the development of a sustainable industrial value chain for critical minerals in LAC.
- 2.6. In addition, the TC is consistent with the Bank's Country Strategy of each beneficiary country. For Peru, it aligns with: (i) supporting formal insertion and productivity in the labor market,⁶ and (ii) strengthen environmental management with a focus on sustainability and climate change. In the case of Mexico, this project is aligned with the strategic objective of contributing to inclusive and sustainable

⁶ [IDB Group Country Strategy for Peru 2022-2026](#)

economic growth, and to the dynamism of productivity and investment in the country, by promoting strategic investments in critical minerals and their value chains.⁷ For Argentina, it is aligned with the strategic objectives of: (i) Improving the employability of the population, (ii) Promoting insertion into foreign trade with valuable products and services, and (iii) Improving the regulatory framework.⁸ Other IDB borrowing member countries with a relevant mining sector may request to participate in this technical cooperation by submitting a request letter to the Bank's project team leader through their official liaison.

III. Description of Activities and Budget

- 3.1. **Component 1: Dialogue on national strategies for critical minerals (US\$75,000).** This component will finance (i) a regional dialogue program to foster the exchange of experiences and best practices on (a) defining national critical or strategic minerals to attract and prioritize high-quality and sustainable investments; (b) deepening the value chains around critical minerals nationally and regionally; (c) creating blueprints for roadmaps to leverage the region's mineral deposits into welfare and growth; and (d) leveraging these potential investments in the mining sector towards closing infrastructure gaps in the region and regional exchanges on the status of roadmaps for critical mineral development. The component will also finance; and (ii) the design of forward-looking, long-term, interactive, and country-specific strategies on critical minerals, focusing on opportunities at each stage of the value chain, from exploration to recycling.
- 3.2. **Component 2: Analytical research on critical pathways for minerals and their value chains (US\$100,000).** This component will analyze the challenges to developing and optimizing the region's critical minerals potential and identify the aspects that facilitate and curb advances in creating upstream and downstream value chains for these commodities. The component will finance the following activities: (i) evaluate the challenges to ensure that deposits of lithium, graphite, nickel, copper and rare-earth elements are developed sustainably and identify the economic, social, gender, political, environmental, and other barriers to generate value chains around those minerals; and (ii) a technical analysis that identifies the regulatory and public policy requirements for the development of a sustainable industrial value chain around critical minerals in LAC.
- 3.3. **Component 3: Knowledge dissemination and communications (US\$25,000).** This component will document and disseminate lessons learned to relevant stakeholders, including governments, the private sector, civil society, and the international donor community. The following activities will be financed: (i) travel, communication, and knowledge transfer activities pertinent to the products developed under the two components above; (ii) organization of a high-level event, where key products of this technical cooperation will be presented and discussed with a gender-balanced international audience of key stakeholders in the mining sector, including representatives from government, civil society, and private sector.

⁷ [IDB Group Country Strategy for Mexico 2019-2024](#)

⁸ [Grupo BID: Estrategia de país con Argentina 2021-2023](#)

- 3.4. All knowledge products derived from this TC project will be the Bank's intellectual property.
- 3.5. The total budget of this TC project is US\$200,000, and its source of financing is the OC Strategic Development Program (OC SDP) Window 2-Infrastructure (W2B) funding. There is no local counterpart. Monitoring and evaluation will be carried out by INE/ENE within its Mining Group at HQ, which leads the TC, in close coordination with ENE specialists in each participating country.

Indicative Budget

Activity/Component	IDB / Fund Funding	Counterpart Funding	Total Funding
Component I: Dialogue on national strategies for critical minerals	US\$75,000	N/A	US\$75,000
Component II: Analytical research on critical pathways for minerals and their value chains	US\$100,000	N/A	US\$100,000
Component III: Knowledge dissemination and communications including the organization of a high-level event with a gender-balanced international audience	US\$25,000	N/A	US\$25,000
TOTAL	US\$200,000	N/A	US\$200,000

- 3.6. In terms of expected results, this project seeks to deepen LAC's knowledge of the development of critical mineral deposits and their value chains, so that the countries of the region can take better advantage of their mining potential and play an even more important and strategic role than they do, diversifying their production towards new minerals, attracting investments according to their potential, and developing greater value in their production, in order to promote higher levels of growth, taking into account the opportunities provided by the energy transition. The estimated execution period is 36 months based on the technical experience of the team.

IV. Executing Agency and Execution Structure

- 4.1. Given the strategic objective of the TC of boosting investments in LAC's critical minerals to position the region as a strategic supplier and partner, the beneficiary countries have requested the Bank, through the Energy Division (INE/ENE) of the Infrastructure and Energy Sector (INE), and specifically its Mining Thematic Group, to act as executing agency for the administration of the project, taking advantage of its expertise and its relationship with the different stakeholders.

- 4.2. The activities to be carried out under this TC have been included in the Procurement Plan (Annex IV) and will be executed according to the procurement methods established by the Bank, namely: (a) Contracting of individual consultants following the established in norms AM-650; (b) Contracting of consulting firms for services of an intellectual nature according to GN-2765-4 and the annex II of its associated operational guidelines (OP-619-4); and (c) Contracting of logistical and other non-consulting services according to policy GN-2303-28.
- 4.3. The Bank will be responsible for the selection and hiring of consulting firms and individual consultants which will be in accordance with IDB policies and procedures (GN-2350-9). In addition (i) the individual consultants will be hired in accordance with appendix 10 of GN-2629-1 and guidelines set out in AM-650 and a) will not perform functions similar to those of the staff of the Bank or the Beneficiary; and b) will not be hired to act as the Bank's counterpart on behalf of the Beneficiary; (ii) the procurement process for consulting firms will follow IDB Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4) and its related Operational Guidelines (OP-619-4); and (iii) the procurement of non-consultant services will follow the IDB Corporate Procurement Policy (GN-2303-28). Following IDB Operational Guidelines for Technical Cooperation Products revised version (GN2629-1), this TC is classified as a product for Client Support.

V. Major issues

- 5.1. The main implementation risk of this TC is that key findings and main policy recommendations may not be adopted by policymakers and practitioners in the region. To mitigate the risk, the project team will work closely together with partners, policymakers, and key stakeholders in all phases of the project. The organization of institutional roundtables and workshops with stakeholders directed to generate debate and promote actions by public officials will be proposed.
- 5.2. Another lesser risk is political uncertainty or possible changes in priorities due to changes in government that could affect the implementation of this project. To address this risk, the project team will ensure that all beneficiary countries assign a focal point with technical training, who may be more likely to overcome political cycles and will establish regular meetings and validation meetings, which will include private and public sector partners for implementation to ensure continuity in the initiatives.

VI. Exceptions to Bank Policy

- 6.1. This project will not require any exception to the Bank's policy.

VII. Environmental and Social Strategy

- 7.1. This TC will not finance feasibility or pre-feasibility studies of investment projects associated with environmental and social studies; therefore, it falls outside the scope of the Bank's Environmental and Social Policy Framework (ESPF).

Required Annexes:

[Request from the Client - RG-T4066](#)

[Results Matrix - RG-T4066](#)

[Terms of Reference - RG-T4066](#)

[Procurement Plan - RG-T4066](#)