

TC Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	CANEF: Promoting Environmentally Responsible Mining in Latin America and the Caribbean
▪ TC Number:	RG-T3516
▪ Team Leader/Members:	Nunes Da Cunha, Natascha (INE/INE) Team Leader; Benavente, Jose Miguel (IFD/CTI) Alternate Team Leader; Aldaz Guallart, Miguel (ORP/REM); Balza Angulo, Lenin Humberto (INE/INE); Bonifaz Urquizu, Jeanette (INE/ENE); Fuentes Mejia, Elisa Mercedes (CSD/CCS); Greco, Maria Sofia (LEG/SGO); Marcelino Reboucas, Lidia (VPS/ESG); Marchan, Estefania Elizabeth (INE/INE); Ogialoro, Claudia (ORP/GCM); Vogt-Schilb, Adrien (CSD/CCS); Walter, Martin (INE/CCH)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	June 12, 2019
▪ Beneficiary:	Regional
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Canadian Facility for the Extractives Sector (CANEF; RG-X1262). Canada Cooperation Framework.
▪ IDB Funding Requested:	US\$550,000.00
▪ Local counterpart funding, if any:	
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	July 15, 2019
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	INE-Infrastructure and Energy Sector
▪ Unit of Disbursement Responsibility:	INE-Infrastructure and Energy Sector
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Environmental sustainability; Productivity and innovation; Institutional capacity and rule of law

II. Objectives and Justification of the TC

- 2.1 The objective of this technical cooperation is to support the environmentally responsible development of the mining sector in Latin America and the Caribbean (LAC). To this end, the technical cooperation has three main goals: (i) to understand the economic and environmental implications for LAC of a growing demand for metals in a carbon-constrained world; (ii) to support the development of “green-technology breakthroughs” in the mining sector in LAC; and (iii) to support the adoption of environmentally responsible solutions to mining sector development in LAC.

- 2.2 Mining has an inescapable presence in our daily lives. Minerals and metals have been key contributors to human progress throughout history, from the Bronze and Iron Ages to the Industrial Revolution and into today's technological age. Minerals and metals are the building blocks for many of the basic goods we rely on such as computers, mobile phones, cars, medical devices, homes, roads, schools, and other infrastructure essential for modern society.
- 2.3 Critically, the mining sector also provides many countries and communities with opportunities to advance economic and social development. For many LAC countries, mining and related natural resource sectors are important engines for economic growth. LAC is among the top regions with the largest proven reserves and production of key metals in the world, including copper, gold, iron ore, lithium, and silver. Rents from mining in the region average over 2% of GDP—though they are between 8 and 16% of GDP in Chile, Guyana, Peru, and Suriname.¹
- 2.4 At the same time, Latin America and Caribbean is home to some of the most pristine and diverse ecosystems in the world. Yet the region faces serious challenges in the coming decades, including climate change and environmental degradation, which can be exacerbated by natural resource extraction. LAC could lose an average 4% of its GDP by 2030 due to the impacts of climate change, causing up to 2 million people to fall into extreme poverty.²
- 2.5 Nevertheless, as the global population continues to grow and urbanize, demand for metals and other raw materials is predicted to increase drastically. The United Nations projects that, without innovation, urbanization alone will cause global raw materials consumption to increase from 40 billion tones in 2010 to about 90 billion tones in 2050. Even the large-scale deployment of the renewable energy technologies needed to combat climate change such as solar, wind, and the batteries for electric vehicles and energy storage, will increase minerals and metals demand in the future.
- 2.6 In fact, recent studies show that the technologies needed for a future with low carbon emissions (e.g. wind and solar energy, hydrogen, batteries and electric vehicles) are more mineral-intensive than traditional energy systems. Metals that could see a growing market include alumina (and bauxite), cobalt, copper, iron, lead, lithium, nickel, manganese, platinum metals, rare earths, silver, titanium, and zinc. According to the World Bank, for example, the demand for lithium, which is a key component in batteries, will increase by over 950% by 2050. The demand for copper – another metal necessary for the clean energy transition – will be same in the next 25 years as it was in the last 5,000.³
- 2.7 Such an increase in demand for metals presents an opportunity for many countries in LAC. The region is in an excellent position to provide the raw materials necessary for a global energy transition as it has a key strategic advantage in copper, iron ore, silver, lithium, nickel, manganese, and zinc. If developed responsibly and invested strategically, income from resource extraction can serve to improve the lives of individuals and communities throughout the region.

¹ World Bank Development Indicators.

² Hallegatte, Stephane; Bangalore, Mook; Bonzanigo, Laura; Fay, Marianne; Kane, Tamaro; Narloch, Ulf; Rozenberg, Julie; Treguer, David; Vogt-Schilb, Adrien. 2016. Shock Waves: Managing the Impacts of Climate Change on Poverty. Washington, DC: World Bank.

³ See, <https://www.worldbank.org/en/topic/extractiveindustries/brief/climate-smart-mining-minerals-for-climate-action>

- 2.8 Yet, to ensure that the future development of the sector is environmentally sustainable, minerals and metals extraction and consumption need to fundamentally adapt to also be low-carbon and low-impact. Currently, there are significant financial, technological, and regulatory barriers to green innovation in the industrial mining sector. According to the Chilean Mining Consortium, for example, mining companies forgo an average of USD 1 million per hour in lost revenue in order to test new processes and technologies; they also face weak regulatory standards and oversight that impede innovation.⁴
- 2.9 Several things will be necessary to achieve low-carbon and low-impact mining. On the supply side, the mining industry will have to adopt innovative technologies and practices to extract sustainably. To reduce their carbon footprint, companies can integrate renewable energy to mineral processing, refining, and transportation, as well as innovate to make these processes more efficient. Companies must also innovate to reduce their use of water and to better manage their waste and environmental footprint.
- 2.10 On the demand side, companies downstream of the supply chain, such as technology and automotive companies, must innovate to reduce their demand for minerals through recycling (and other circular economy approaches) and new technologies and industrial processes that are less material intensive. Citizens, too, have an important role to play in demanding products with high standards for the responsible sourcing of the minerals ultimately used in the products they consume.
- 2.11 The mining industry's adaptation to climate change and the adoption of innovative green technologies in the mining sector can present opportunities for LAC countries to become a benchmark for innovation and sustainability in the extractive sector. Supporting such innovations can have positive spillovers in the economies of many LAC countries through the development of local know-how and new industries.
- 2.12 The technical cooperation is aligned with three themes of the Bank's institutional strategy for 2010-2020 (AB-3008): environmental sustainability productivity and innovation; and institutional capacity and rule of law. On the first issue, the TC will support the development of knowledge necessary to accelerate the adoption of sustainable mining practices and environmental regulations in order to minimize the environmental impact of the sector in the region. On the second issue, the TC will develop activities to strengthen technical knowledge and technology transfer in the sector. Regarding the third theme, the TC supports the strengthening of the policies and institutions that govern the extractive sector in LAC.
- 2.13 This TC is also aligned with the objectives of the Canadian Facility for the Extractives Sector (CANEF). Through CANEF, the IDB helps LAC countries move toward more responsive, flexible, and transparent fiscal regimes in the EIs. CANEF supports the promotion of innovative and sustainable solutions to challenges in the extractives sector in LAC. Approved by the IDB in March 2016, the Facility reflects a prolonged effort by the IDB to better integrate its efforts in the extractives sector (oil, gas and mining sector), and the Bank's successful longstanding partnership with the Government of Canada. CANEF finances non-reimbursable technical cooperation projects aligned with its strategic objectives. CANEF subprojects support the development of a range of knowledge products, including regional and country-specific public goods, such as technical reports, studies and course curricula on issues

⁴ CESCO Cooper Week Presentation, 2019.

pertaining to the extractives sector (oil, gas and mining sector) that contribute to foster long-term perspectives for sector development and responsible investment and improve stakeholder collaboration and institutional strengthening.

- 2.14 The technical cooperation is also aligned with the RG-T3340, “Lithium Development: Regional Platform for Sustainable Development,” whose objective is to strengthen the regional strategic management capacity for the development of lithium resources, putting special emphasis on overcoming the challenges of productivity, sustainability, and the generation of value along the lithium value chain; and AR-T1218, “Strengthening the Technical, Environmental, and Social Capacities for the Governance of Lithium Resources in the Province of Jujuy, Argentina,” whose objective is to support the responsible and sustainable development of the lithium sector in the Province of Jujuy in Argentina, from its exploration stages, to extraction, and governance, improving the institutional capacities of the government and the engagement between industry, civil society, and government. This TC complements the above-mentioned projects as it looks beyond lithium to all the other minerals and metals that will be impacted by the future energy and digital transition.

III. Description of activities/components and budget

- 3.1 **Component 1 – Understand the Economic and Environmental Implications for LAC of Metals Demand in a Carbon-Constrained World.** The objective of this component is to promote the generation of knowledge related to the economic and environmental implications for LAC of future metals demand resulting from a global transition to low-carbon energy technologies. The component will be executed through one activity:
 - 3.2 Activity 1a. Develop Supply and Demand Scenarios for Mining through 2050. This activity will finance the development of scenarios to 2050 for metals demand associated with a global transition to low-carbon energy technologies and its impact on LAC countries, including but not limited to Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Jamaica, Mexico, and Peru. Methodology should map future metals demand to support the transition to the renewable technologies necessary for keeping a global temperature rise this century below 2 degrees Celsius above pre-industrial levels, per the Paris Climate Agreement. The product will serve as a regional public good to be used for effective, long-term strategic planning in the region.
- 3.3 **Component 2 – Support the Development of “Green-Technology Breakthroughs” in LAC’s Mining Sector.** The objective of this component is to support the conditions for the development and adoption of zero-waste mining innovations that will revolutionize the sector and allow LAC to sustainably meet the world’s resource needs. Of special concern in mining is the volume and safety of tailings, or the ore waste of mines, which, in the event of an accident, can have detrimental environmental, social, and economic consequences. This component will focus on supporting zero-waste mining technologies and be executed through two activities:
 - 3.4 Activity 2a. Support the Pre-Launch Phase and Co-design the XPRIZE Zero-Waste Mining Grand Challenge. In collaboration with the XPRIZE Foundation (a leading non-profit working on transformative social and environmental innovations), Antofagasta Minerals, Anglo American, and BHP Billiton, the Bank will collaborate on the design of a competition for innovations that will result in, or get measurably closer to, zero-waste

mining. The competition is expected to be launched by mid-2020 and inventors will test their technologies across LAC. Specifically, this activity will provide support for project coordination, road-show presentations, promotion, and the development of strategic public-private partnerships that are necessary for the competition's success.

- 3.5 Activity 2b. Support the Creation of the Global Innovation Mining Consortium in LAC. Real, broad-based transformation of the mining sector in LAC requires on-going and long-term collaboration between public and private actors. To ensure the sustainability and broad reach of the Bank's initiatives, this activity will support the initial design of a regional hub for transformative, green innovations in the mining sector. The hub will be a multi-country and multi-stakeholder innovation ecosystem aimed at accelerating the sharing and adoption of green-technology breakthroughs in the mining sector. This activity will focus specifically on supporting the design of the new entity. This effort represents a unique opportunity for LAC countries to access to a new set of assets for sectoral transformation.
- 3.6 **Component 3 – Promote the dissemination and adoption of environmentally responsible solutions to mining sector development in LAC countries.** The objective of this component is to promote the diffusion of knowledge and adoption of strategies and policies that support the introduction of innovations in environmental management and climate change adaptation and mitigation strategies in the mining sector in LAC. The component will be executed through two activities:
- 3.7 Activity 3a. Promote the adoption of innovations in environmental management and climate change adaptation and mitigation strategies in LAC. This activity will finance the development of roadmaps to 2050 (or similar long-term timelines) with objectives and specific interventions based on scenarios and identification of opportunities derived from Activities 1a-2a. Proposed policies and strategies can be for, but are not limited to: integration of renewable energy in mining (in processing, refining, and transportation); use and efficiency of water and energy (infrastructure planning); management of waste and environmental footprint (zero-waste mining, enhanced reclamation and restoration practices, and avoidance and minimization through mine design optimization); mining infrastructure resilient to climate change (tailings dams and other infrastructure); alignment of with global responsible sourcing strategies and standards (including policies for enhancing the traceability of metals from the artisanal and small-scale mining sector); adoption of circular economy standards, including recycling. The roadmaps should be the result of a collaborative effort between governments, industry, and civil society, but should have concrete objectives and indicators that governments can introduce into their strategic sector planning.
- 3.8 Activity 3b. Support the exchange and dissemination of knowledge on implications for LAC's mining sector of low-carbon future and good mining and environmental practices. This activity will finance conferences, workshops, and trainings with the goals of disseminating knowledge of the economic and environmental impacts for LAC of the global low-carbon transition and promoting the adoption of enhanced safety and environmental regulations and institutional frameworks necessary for the responsible development of critical minerals needed in a low-carbon future.

Indicative Budget

Activity	IDB/Fund Funding
1a. Develop Supply and Demand Scenarios for Mining through 2050.	\$150,000.00
2a. Support the Pre-Launch Phase and Co-design the XPRIZE Zero-Waste Mining Grand Challenge	\$75,000.00
2b. Support the Creation of the Global Innovation Mining Consortium in LAC	\$25,000.00
3a. Promote the adoption of innovations in environmental management and climate change adaptation and mitigation strategies in LAC	\$225,000.00
3b. Support the exchange and dissemination of knowledge on implications for LAC's mining sector of low-carbon future and good mining and environmental practices	\$50,000.00
Travel and Contingencies	\$25,000.00
Total	550,000.00

IV. Executing agency and execution structure

- 4.1 The Bank will act as the executing agency for the purpose of the administration of the project. The IDB, at its Washington DC headquarters, is responsible for the supervision and implementation of the Canadian Extractive Sector Facility (RG-X1262) resources as a Project Specific Grant (PSG) contribution. The IDB will lead implementation, programmatic oversight of the different activities, and coordinate annual meetings with the donor to provide an overall assessment of the program's progress and results. Prior to the initiation of the activities in the beneficiary countries, the Bank will obtain the letter of non-objection from the corresponding liaison office.
- 4.2 The Bank will contract individual consultants, consulting firms and non-consulting services in accordance with the Bank's current procurement policies and procedures. The activities to be executed under this operation have been included in the Procurement Plan (Annex) and will be executed in accordance with the Bank's established procurement methods, namely: (a) Hiring of individual consultants, as established in AM standards -650; (b) Contracting of consulting firms for services of an intellectual nature according to GN-2765-1 and its associated operational guides (OP-1155-4) and (c) Contracting of logistics services and other services other than consultancy, according to the policy GN-2303-20.

V. Project Risks

- 5.1 The main risks to the successful implementation of this TC is the scarcity of available data within the sector to serve as inputs for the development of the "supply and demand" scenarios and their environmental and economic implications contemplated

in the various components. To mitigate this risk, the IDB will leverage existing expertise and data generated by other division across the Bank with respect to the implications of climate change across LAC, as well as medium and long-term global economic and development scenarios.

- 5.2 Another important risk to the implementation of this project is the uncertainty of which specific low-carbon technologies will be adopted in the next decades. In order to ensure that scenarios meaningfully reflect future developments, the Bank will compare selected scenarios with multiple industry studies.

VI. Exceptions to Bank policy

- 6.1 None

VII. Environmental and Social Strategy

- 7.1 Following ESG's project classification process (Safeguard Policy Filter and Safeguard Screening Form) requirements, it has been determined that this project falls under Category C. No environmental assessment studies or consultations are required for Category "C" operations. See Safeguard Screening Form ([SSF](#)) and Safeguard Policy Filter ([SPF](#)).

VIII. Required Annexes:

- [Results Matrix](#)
- [Terms of Reference](#)
- [Procurement Plan](#)

Results Matrix






Outcomes

Outcome: [1 Improved knowledge about effects of low-carbon technologies on LAC's mining sector](#)

Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	EOP	
1.1 LAC country(ies) include impact scenarios in strategic sector plan		1	0,00	2019	Long term supply and demand scenarios	P	1,00
						P(a)	1,00
						A	

CRF Indicator

Outputs: Annual Physical and Financial Progress

1 Understand the Economic and Environmental Implications for LAC of Metals Demand in a Carbon-Constrained World						Physical Progress				Financial Progress				Theme	Fund	Flags		
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2019	2020	2021	EOP	2019	2020	2021	EOP					
1.1 Technical notes created	Supply Demand Scenarios for Mining Sector Development due to Low-Carbon Technologies	Notes (#)	0	2019	Technical Note	P	1	0	0	1	P	150000	0	0	150000	Sustainable Energy and Climate Change	CCF	
						P(a)	1	0	0	0	P(a)	150000	0	0	0			
						A					A							
2 Support the Development of “Green-Technology Breakthroughs” in LAC’s Mining Sector						Physical Progress				Financial Progress				Theme	Fund	Flags		
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2019	2020	2021	EOP	2019	2020	2021	EOP					
2.1 Awareness raising campaigns designed/implemented	Pre-Launch Phase of XPRIZE Zero-Waste Mining Grand Challenge Completed	Campaigns (#)	0	2019	Report of launch	P	0.5	0.5	0	1	P	37500	37500	0	75000	Sustainable Energy and Climate Change	CCF	
						P(a)	0.5	0.5	0	0.5	P(a)	37500	37500	0	37500			
						A					A							
2.2 Networks/communities of practice established	Global Innovation Mining Consortium Established in LAC	Networks (#)	0	2019	Report from advisor	P	0	0.5	0.5	1	P	0	12500	12500	25000	Sustainable Energy and Climate Change	CCF	
						P(a)	0	0.5	0.5	1	P(a)	0	12500	12500	25000			
						A					A							
3 Promote the dissemination and adoption of environmentally responsible solutions to mining sector development in LAC countries						Physical Progress				Financial Progress				Theme	Fund	Flags		
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2019	2020	2021	EOP	2019	2020	2021	EOP					
3.1 Strategies designed	Low-Carbon Mining Sector Development Strategies Designed	Strategies (#)	0	2019	Report	P	0	2	2	4	P	0	112500	112500	225000	Institutional Development	CCF	
						P(a)	0	2	2	4	P(a)	0	112500	112500	225000			
						A					A							
3.2 Regional policy dialogues organized	Low-Carbon Mining Sector Development Event Organized	Events (#)	0	2019	List of attendees	P	1	1	0	2	P	25000	25000	0	50000	Sustainable Energy and Climate Change	CCF	
						P(a)	1	1	0	1	P(a)	25000	25000	0	25000			
						A					A							

Other Cost

Monitoring and Contingencies

	2019	2020	2021	Cost
P	\$8.333,00	\$8.333,00	\$8.334,00	\$25.000,00
P(a)	\$8.333,00	\$8.333,00	\$8.334,00	\$16.667,00
A				

Total Cost

	2019	2020	2021	Total Cost
P	\$220.833,00	\$195.833,00	\$133.334,00	\$550.000,00
P(a)	\$220.833,00	\$195.833,00	\$133.334,00	\$329.167,00
A				

CRF Indicator

Standard Output Indicator

Selection process #:.....

TERMS OF REFERENCE

Supply and Demand Scenarios for Impact of Low-Carbon Technologies for LAC's Mining Sector

REGIONAL

ATN/CN

RG-T3516

[Web link to approved document]

Promoting Environmentally Responsible Mining in Latin America and the Caribbean

1. Background and Justification

- 1.1.** Minerals and metals are the building blocks for many of the basic goods we rely on such as computers, mobile phones, cars, medical devices, homes, roads, schools, and other infrastructure essential for modern society. As the global population continues to grow and urbanize, demand for metals and other raw materials is predicted to increase drastically. The United Nations projects that, without innovation, urbanization alone will cause global raw materials consumption to increase from 40 billion tones in 2010 to about 90 billion tones in 2050. Even the large-scale deployment of the renewable energy technologies needed to combat climate change such as solar, wind, and the batteries for electric vehicles and energy storage, will increase minerals and metals demand in the future.
- 1.2.** In fact, recent studies show that the technologies needed for a future with low carbon emissions (e.g. wind and solar energy, hydrogen, batteries and electric vehicles) are more mineral-intensive than traditional energy systems. Metals that could see a growing market include alumina (and bauxite), cobalt, copper, iron, lead, lithium, nickel, manganese, platinum metals, rare earths, silver, titanium, and zinc.
- 1.3.** Such an increase in demand for metals presents an opportunity for many countries in Latin America and the Caribbean (LAC). The region is in an excellent position to provide the raw materials necessary for a global energy transition as it has a key strategic advantage in copper, iron ore, silver, lithium, nickel, manganese, and zinc.
- 1.4.** The mining sector also provides many countries and communities with opportunities to advance economic and social development. For many LAC countries, mining and related natural resource sectors are important engines for economic growth. LAC is among the top regions with the largest proven reserves and production of key metals in the world, including copper, gold, iron ore, lithium, and silver. Rents from mining in the region average over 2% of GDP—though they are between 8 and 16% of GDP in Chile, Guyana, Peru, and Suriname.
- 1.5.** At the same time, Latin America and Caribbean is home to some of the most pristine and diverse ecosystems in the world. Yet the region faces serious challenges in the coming decades, including climate change and environmental degradation, which can be exacerbated by natural resource extraction. LAC could lose an average 4% of its GDP by 2030 due to the impacts of climate change, causing up to 2 million people to fall into extreme poverty.

- 1.6. To ensure that the future development of the sector is environmentally sustainable, minerals and metals extraction and consumption need to fundamentally adapt to also be low-carbon and low-impact. The objective of this consultancy is to generation, exchange, and dissemination of knowledge related to the economic and environmental implications for LAC of future metals demand resulting from a global transition to low-carbon energy technologies.

2. Objectives

- 2.1. The objective of this consultancy is to develop scenarios to 2050 for metals demand associated with a global transition to low-carbon energy technologies and its impact on LAC countries. The methodology should map future metals demand to support the transition to the renewable technologies necessary for keeping a global temperature rise this century below 2 degrees Celsius above pre-industrial levels, per the Paris Climate Agreement.

3. Scope of Services

- 3.1. The scenarios should consider the following technologies (but not be limited to these): solar, wind, battery storage for grid management, and battery storage for electric mobility uses. The scenarios should consider potential impact of increased demand for specific LAC countries, including but not limited to Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Jamaica, Mexico, and Peru.

4. Key Activities

- 4.1. Develop workplan for study.
- 4.2. Develop methodology outlining technologies considered and rationale, comparing selections with other industry scenarios.
- 4.3. Map material-intensity of technologies considered and rationale, comparing assumptions with other industry scenarios.
- 4.4. Develop demand scenarios to 2050 for key minerals and metals associated with chosen technologies, comparing results with other industry scenarios.
- 4.5. Develop potential supply scenarios to 2050, mapping these to specific LAC mineral-producing countries.
- 4.6. Calculate potential economic benefits from selected supply and demand scenarios for LAC.

5. Expected Outcome and Deliverables

5.1. Completed workplan.

5.2. Completed and accepted methodology with selected technologies and their associated material-intensity.

5.3. Completed and accepted demand scenarios.

5.4. Completed and accepted supply and economic impact scenarios.

6. **Project Schedule and Milestones**

6.1. Submit workplan 5 working days from signing of contract.

6.2. Submit methodology and associated mineral-intensity 30 days from signing of contract.

6.3. Submit demand scenarios 60 days from signing of contract.

6.4. Submit supply and economic impact scenarios 90 days from signing of contract.

7. **Reporting Requirements**

7.1. The reports should be submitted in Word and Excel format and written as a working paper, with each deliverable added as a new section. Two in-person workshops will be arranged to present results and discuss methodology: one at completion of methodology and associated mineral-intensity of technologies, and the other upon completion of supply and economic impact section. The reports should be written in English.

8. **Acceptance Criteria**

8.1. Report should be in Word format, with any graphs, tables, and related data in Excel format. All methodologies, assumptions, and data sources used should be clearly outlined.

9. **Other Requirements**

9.1. N/A

10. **Supervision and Reporting**

10.1. Division Leader or Coordinator: Natascha Nunes da Cunha (INE/INE) (e-mail: NATASCHAN@IADB.ORG), with copy to Estefania Marchan (INE/INE) (email: EMARCHAN@IADB.ORG)

11. Schedule of Payments

- 11.1.** Payment terms will be based on project milestones or deliverables. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.
- 11.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule	
<i>Deliverable</i>	%
1. Workplan	25%
2. Methodology and Material-Intensity	25%
3. Demand Scenarios	25%
4. Supply Scenarios	25%
TOTAL	100%

RG-T3516-CANEF: PROMOTING ENVIRONMENTALLY RESPONSIBLE MINING IN LATIN AMERICA AND THE CARIBBEAN PSG DOCUMENT PACKAGE

Quality and Risk Review (QRR) – Results and Procedure Report

A. QRR PROCEDURE

The PSG Document Package was distributed for comments to the QRR on June 14, 2019. The Package was distributed to: Florez Timoran, Hugo (BR); Prieto, Felix R. (BR); De La Cruz, Rafael (CAN); Martinez Mancilla, Yolanda (CH); Montenegro, Fernando M. (CH); Zavala Lombardi, Veronica E. (CID); De La Cruz, Rafael (CO); Lopez Ghio, Ramiro Andres (CO); Lupo, Jose Luis (CSC); Vogt-Schilb, Adrien (CSD/CCS); Boulet, Emmanuel Andre (IDB); Gomez-Pena, C Andres (IDB); Benavente, Jose Miguel (IFD/CTI); Aguerre, Jose Agustin (INE); Walter, Martin (INE/CCH); Bonifaz Urquizu, Jeanette (INE/ENE); Balza Angulo, Lenin Humberto (INE/INE); Marchan, Estefania Elizabeth (INE/INE); Nunes Da Cunha, Natascha (INE/INE); Greco, Maria Sofia (LEG/SGO); Bermudez, Tomas (ME); Taborga, Miguel (ME); Oglialoro, Claudia (ORP/GCM); Aldaz Guallart, Miguel (ORP/REM); Caro Hinojosa, Elba Viviana (PE); Game, Francisco Javier (PE); Perez-Felip, Dahiana (VPC/FMP); Melandri, Alejandro / CAN/CBO; Rabade, Hector / CAN/CBO; Palmerio, Gustavo Adolfo / CAN/CEC; Quevedo, Fernando / CAN/CEC; Alva Hart, Viviana del Carmen / CSC/CAR; CAN/CAN; CID/CID; CSC/CSC; ESG; FIN/FSV; FIN/TCS; LEG/SGO; OCSU; OPC; ORP/GCM; SPD/SDV; VPC/FMP and VPS/VPS

The comments received, as well as recommended next steps, have been documented in this Results and Procedure Report. No meeting was convened to discuss either the document as a whole or specific issues.

B. NON-RESOLVED ISSUES

C. COMMENTS

Name/Dept.	Topic	Comments	Answers
CID/CID	TC Document Section III. Objectives and Justification of the TC	<p>El párrafo 2.3 se refiere a los diversos minerales en los que ALC tiene reservas probadas. ¿Los retos para volver más ecológicamente sostenible la actividad son homogéneos en todo el espectro de minerales? Si no es el caso, ¿existen ciertos metales, por su importancia económica en la región y la cantidad de emisiones, donde sería recomendable focalizar los esfuerzos de encontrar tecnologías más limpias para su extracción?</p> <p>Con respecto al párrafo 2.8, se sugiere describir cuáles son las limitaciones que se identifican para que la minería pueda reducir los impactos ambientales y las emisiones de carbono. ¿Es un problema de disponibilidad de tecnologías, de financiamiento y/o de viabilidad económica?</p> <p>En ese mismo sentido, se sugiere documentar cuáles son las experiencias exitosas en la materia a nivel internacional y si ello pudiera ser un referente para el sector en la región.</p>	<p>- No, the environmental challenges and opportunities faced by the mining sector is not the same across metals (nor is it the same across large, small, artisanal, or illegal mining). This TC focuses on large-scale industrial mining practices. The objective of Activity 1a under Component 1 is to determine the specific metals which will see an increase or decrease in demand in the medium term, and to map the implications this has for LAC countries as potential suppliers of both the raw materials and the innovations necessary to extract these more sustainably. Based on this data, Component 3 proposes to develop specific recommendations for those markets which will have the highest impact.</p> <p>- We have included the information suggested in the TC document. Thank you.</p> <p>- Yes, that is precisely the objective of the TC. We have clarified this in the document.</p>

Name/Dept.	Topic	Comments	Answers
		Finalmente, aunque se tengan reservas probadas de diversos materiales en ALC, sería recomendable cambiar el enfoque de la CT de uno de aprovechar las oportunidades para que los países de la región se consoliden como proveedores de materias primas a uno en el que, al adoptar tecnologías limpias e innovadoras, la región tiene la oportunidad de convertirse en referente de innovación y la sostenibilidad en el sector extractivo.	
Montenegro, Fernando M. / CSC/CCH	TC Document	En coordinación con Yolanda, atentamente comentamos que CCH apoya la CT de la referencia. El tema nos parece importante para Chile. Adicionalmente, entre las empresas con las que se coordinaría el concurso de proyectos de desecho cero se encuentra una importante firma chilena, además de varias internacionales.	Thank you. We will be in touch to coordinate.
Greco, Maria Sofia / LEG/SGO	Annex III: Terms of Reference	Please make sure to include all TORs as part of the Annex.	- The TORs for Components 2 and 3 depend on the results from Component 1. We will be sure to share these with you before they are executed.
Greco, Maria Sofia / LEG/SGO	TC Document Section I. Basic Information	In the basic information table of the TC document please include the information of the donor providing the financing for the project and include N/A in the counterpart funding section.	We have tried to add this information manually on our end, but the new process in Convergence does not allow us to change this. We have asked GCM to change this as they have permission.
Greco, Maria Sofia / LEG/SGO	TC Document Section III. Objectives and Justification of the TC	We suggest describing in a separate paragraph in Section III what is expected to be financed with the resources assigned in the budget table under "Monitoring".	We have changed this wording on the budget table. We meant this line for traveling of consultants and contingencies.
OCSU	TC Document Section IV. Description of activities/components and budget	Sugerimos adecuar el parrafo 4.2 al siguiente language: "Las actividades a ejecutar bajo esta operación se han incluido en el Plan de Adquisiciones (Anexo) y serán ejecutadas de acuerdo con los métodos de adquisiciones establecidos del Banco, a saber: (a) Contratación de consultores individuales, según lo establecido en las normas AM-650; (b) Contratación de firmas consultoras para servicios de naturaleza intelectual según la GN-2765-1 y sus guías operativas asociadas (OP-1155-4) y (c) Contratación de servicios logísticos y otros servicios distintos a consultoría, de acuerdo a la política GN-2303-20."	We have changed this in the document. Thank you.
Oglialoro, Claudia / ORP/GCM	Annex II: Results Matrix	In the Result Matrix there is still information that needs to be filled in: Baseline, Baseline year, Means of verification and Fund.	We have changed this in the document. Thank you.
Oglialoro, Claudia / ORP/GCM	TC Document Section I. Basic Information	1. Please include CANEF in the TC Name. 2. Donors providing funding is Canadian Facility for the Extractives Sector (CANEF; RG-X1262). Canada Cooperation Framework.	1. We have changed this in the document. Thank you. 2. The new process in Convergence does not allow us to make this change. We have reached out to Claudia Oglialoro to support us in making this change. We understand that GCM has the permissions in the system to do this. We do not.

Name/Dept.	Topic	Comments	Answers
Oglialoro, Claudia / ORP/GCM	TC Document Section III. Objectives and Justification of the TC	I suggest the countries mentioned in the Terms of Reference be mentioned in the TC Document. The scenarios should consider potential impact of increased demand for specific LAC countries, including but not limited to Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Jamaica, Mexico, and Peru.I suggest the countries mentioned in the Terms of Reference should also be mentioned in the TC Document.	We have changed this in the document. Thank you.



Safeguard Screening Form

Operation Information

Operation		
RG-T3516 Promoting Environmentally Responsible Mining in Latin America and the Caribbean		
Environmental and Social Impact Category	High Risk Rating	
C		
Country	Executing Agency	
REGIONAL	US-IDB - INTER-AMERICAN DEVELOPMENT BANK	
Organizational Unit	IDB Sector/Subsector	
Infrastructure and Energy Sector	NEW OIL AND GAS AND EXTRACTIVE INDUSTRIES	
Team Leader	ESG Primary Team Member	
NATASCHA NUNES DA CUNHA		
Type of Operation	Original IDB Amount	% Disbursed
Technical Cooperation	\$550,000	0.000 %
Assessment Date	Author	
12 Jun 2019	emarchan Operational Analyst	
Operation Cycle Stage	Completion Date	
ERM (Estimated)		
QRR (Estimated)		
Board Approval (Estimated)		
Safeguard Performance Rating		
Rationale		

Operation Classification Summary

Overriden Rating	Overriden Justification
Comments	



Safeguard Screening Form

Conditions / Recommendations

No environmental assessment studies or consultations are required for Category "C" operations.

Some Category "C" operations may require specific safeguard or monitoring requirements (Policy Directive B.3). Where relevant, these operations will establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.)

The Project Team must send the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports.

Summary of Impacts / Risks and Potential Solutions

Disaster Risk Summary

Disaster Risk Level

Low

Disaster / Recommendations

No specific disaster risk management measures are required.

Disaster Summary

Details

The project is classified as low disaster risk because the occurrence of the hazard event does not impact in the achievement of project outcomes.

Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.