

REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Selection # as assigned by e-Tool: RG-T3516-P003

Selection Method: Simplified Competitive Selection

Country: Regional

Sector: Sector de Infraestructura y Energía

Funding – TC #: ATN/CN-17506-RG

Project #: RG-T3516

TC name: CANEF: Promoting Environmentally Responsible Mining in Latin America and the Caribbean

Description of Services: The objective of this consultancy is to develop scenarios to 2030 and 2050 for key minerals and metals demand associated with a global transition to low carbon energy and digital technologies and its impact on LAC countries. The methodology should map future demand of key metals and minerals to support the transition to the renewable energy and digital technologies necessary for keeping a global temperature rise this century at 1.5 and 2 degrees Celsius above pre-industrial levels, per the Paris Climate Agreement.

Link to TC document: <https://www.iadb.org/en/project/RG-T3516>

The Inter-American Development Bank (IDB) is executing the above-mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>) by: **February 4, 2020 at 5:00 P.M. (Washington D.C. Time).**

The performance of the consulting services (“the Services”) will require an estimated timeframe of 4 months.

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described below in the draft summary of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative. Special requirements according to the Donor Trust Fund (DTF), if applicable.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: emarchan@iadb.org and jeanetteb@iadb.org.

Infrastructure and Energy Sector

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Draft Summary of Terms of Reference

Selection process # RG-T3516-P003

TERMS OF REFERENCE

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

REGIONAL

ATN/CN-17506-RG

RG-T3516

<https://www.iadb.org/en/project/RG-T3516>

Promoting Environmentally Responsible Mining in Latin America and the Caribbean

1. **Background and Justification**

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.

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.

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.

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.

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.

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**

1. The objective of this consultancy is to develop scenarios to 2030 and 2050 for key minerals and metals demand associated with a global transition to low carbon energy and digital technologies and its impact on LAC countries. The methodology should map future demand of key metals and minerals to support the transition to the renewable

energy and digital technologies necessary for keeping a global temperature rise this century at 1.5 and 2 degrees Celsius above pre-industrial levels, per the Paris Climate Agreement.

3. **Scope of Services**

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, as well as digital technologies. 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**

1. Develop workplan for study.
2. Develop methodology outlining technologies considered and rationale, comparing selections with other industry scenarios.
3. Map material-intensity of technologies considered and rationale, comparing assumptions with other industry scenarios.
4. Develop demand scenarios to 2030 and 2050 for key minerals and metals associated with chosen technologies, comparing results with other industry scenarios.
5. Develop potential supply scenarios to 2030 and 2050, mapping these to specific LAC mineral and metal-producing countries.
6. Calculate potential economic benefits from selected supply and demand scenarios for LAC.
7. Analyze potential sector policies that should be considered to take advantage of new demand, while preventing conflict, securing the environment, and guaranteeing inclusive benefits to communities and countries.

5. **Expected Outcome and Deliverables**

1. Completed workplan.
2. Completed and accepted methodology with selected technologies and their associated material-intensity.
3. Completed and accepted demand scenarios.
4. Completed and accepted supply and economic impact paper with policy implications for LAC.

6. **Project Schedule and Milestones**

1. Submit workplan 5 working days from signing of contract.
2. Submit methodology within 30 working days from signing of contract.
3. Submit demand scenarios within 60 working days from signing of contract.
4. Submit supply and economic impact scenarios within 90 working days from signing of contract.

7. **Reporting Requirements**

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**

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**

1. N/A

10. **Supervision and Reporting**

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**

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.

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. Final Paper	25%
TOTAL	100%