

**REQUEST FOR EXPRESSIONS OF INTEREST**  
**CONSULTING SERVICES**  
**BANK-EXECUTED OPERATIONS**  
**FULL COMPETITIVE SELECTION PROCESS**

**Project name:** Strategic Infrastructure Investment Planning for Andean Productive Corridors: From Baseline to Bankable Projects

**Selection Process #:** B260079

**SELECTION METHOD:** Full Competitive

**COUNTRY:** Andean Countries

**SECTOR OR DEPARTMENT:** Department of Andean Countries

**TC NAME:** MINERALS AS LEVERAGE FOR GROWTH IN THE ANDEAN REGION: DASHBOARD FOR INVESTMENT NEEDS

**Funding – TC #:** ATN/OC-22198-RG

**LINK TO TC DOCUMENT:** [HTTPS://CONVERGENCE.IADB.ORG//OPERATION/RG-T4878](https://convergence.iadb.org//operation/rg-t4878)

**Attention Consulting Firms: Important Update Regarding BEO Bidder Portal Registration**

**All consulting firms**, both new and previously registered in the [BEO Portal](#), **must add their Business Partner Number (BP Number)** to their organization's profiles to participate or continue participating in a BEO procurement process.

Please refer to the [FAQs](#) in the Portal for more details on **"How to Find or Obtain Your BP Number"**.

**Avoid delays** by not waiting until the last moment to complete this update. This process may take up to **48 hours** to complete and could prevent your organization from participating in a BEO Process.

For further questions or assistance, use the [live chat](#) on the BEO Bidder Portal page or email us at [ocs.procurement@iadb.org](mailto:ocs.procurement@iadb.org)

The Inter-American Development Bank (the Bank) was established in December of 1959 to help accelerate economic and social development in Latin America and the Caribbean. Today, the Bank is a major catalyst in mobilizing resources for the region (For more information about the Bank, please refer to the Bank's website at [www.iadb.org](http://www.iadb.org).)

**Section 1. Purpose of this Request for Expression of Interest**

**1.1** The Bank is executing the above-mentioned project. The Bank intends to contract consulting services described in this Request for Expressions of Interest (REOI). The purpose of this REOI is to obtain sufficient information to enable the Bank to evaluate if the eligible consulting firms (CF) have the experience and qualifications relevant to provide the consulting services requested by the Bank.

**1.2** As defined in the Corporate [Procurement Policy \(GN-2303-33\)](#), participating CF must be from a Bank's Member Country<sup>1</sup> or Territory<sup>2</sup> to be eligible to submit an Expression of Interest (EOI). The Bank will conduct the shortlisting process of the CF that expressed interest. The shortlisted CF will then be invited to continue further in the procurement process.

**1.3** This REOI is not to be construed as either an RFP or an offer to contract and in no way obligates the Bank to contract anyone. The Bank reserves the right to reject any and all participating CF for any or no reason without having to provide an explanation. The Bank does not bind itself in any way to select any participating consulting firm. No debrief will be provided as to why CF have or have not been shortlisted.

## Section 2. Instructions to the eligible consulting firms

2.1 Expressions of interest must be delivered using the *Bidder Portal for the Selection and Contracting of Consulting Firms for Bank-Executed Operations* (the Portal) (<http://beo-procurement.iadb.org>) by: **August 25, 2026, 5:00 P.M. (Washington, D.C., Time)** in PDF format only (Max. 45MB).

2.2 To access the Portal, the CF must generate a registration account, including **all** the data requested by the Portal. In the event that any of the information requested is not included, the consulting firm will not be able to participate in this or any other Bank-executed selection process for operational work. If the consulting firm has been previously registered, please validate that you have **all** the consulting firm's information updated and complete before submitting an EOI.

2.3 Eligible CF may partner in the form of a Consortium/joint venture (JV) to enhance their qualifications. Such Consortium/JV shall appoint one of the CF as the representative responsible for the communications, the registration in the Portal, and the submission of the corresponding documents (Lead Firm). If submitting as a Consortium/JV, the proposed structure, as well as the Lead Firm, must be maintained if the Consortium/JV proceeds in this selection process.

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<sup>1</sup> **Member Countries:** Argentina, Austria, Bahamas, Barbados, Belgium, Belize, Bolivia, Brazil, Canada, Colombia, Costa Rica, Chile, Croatia, Denmark, Dominican Republic, Ecuador, El Salvador, Finland, France, Germany, Guatemala, Guyana, Haiti, Honduras, Israel, Italy, Jamaica, Japan, Mexico, Netherlands, Nicaragua, Norway, Panama, Paraguay, People's Republic of China, Peru, Portugal, Republic of Korea, Slovenia, Spain, Suriname, Sweden, Switzerland, Trinidad & Tobago, United Kingdom, United States, Uruguay and Venezuela.

<sup>2</sup> **Eligible Territories:** a) Guadeloupe, French Guiana, Martinique, Reunion – as Departments of France; b) U.S. Virgin Islands, Puerto Rico, Guam – as Territories of the USA; c) Aruba – as a constituent country of the Netherlands; and Bonaire, Curacao, Sint Maarten, Saba, St Eustatius – as Departments of the Netherlands; d) Hong Kong – as a Special Administrative Region of the People's Republic of China.

2.4 Interested CF may obtain further information during office hours, 09:00 AM to 05:00 PM (**Washington, D.C. Time**), by sending an email to: *[insert contact name and email]*

### **Inter-American Development Bank**

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2.5 The Bank hereby invites eligible CF to indicate their interest in providing the services described below in the draft Terms of Reference for the consulting services. Interested CF must provide information establishing that they have the necessary experience and are qualified to perform the services. So that all responses may be properly evaluated, eligible CF must include in their submissions the information requested in the following section, with full and clear explanations.

### **Section 3. Consulting Services**

3.1 The consulting services include ***The consultancy will support the development of a strategic infrastructure investment plan for productive corridors across Bolivia, Colombia, Ecuador, and Peru, including geospatial analysis, value chain and trade assessments, infrastructure prioritization, economic impact analysis, institutional review, and a decision-support platform. The estimated duration is 18 months, with an estimated budget of US\$400,000.***

3.2 Although there is no standard format for presenting an Expression of Interest, eligible CF must submit an EOI containing the following information:

- 1) Basic Information—Provide the official name of CF, the contact's name, email address, phone numbers, and office address (es) of the key contact (s) responsible for the EOI.
- 2) Background—Provide a description of the CF. The CF may include brochures or documents that provide information about its organization, history, mission, structure, and number of staff.
- 3) Experience related to the requested consulting services—Provide all kinds of evidence the CF considers appropriate to show its experience and expertise in delivering services similar to those described in Annex A, Terms of Reference (e.g., brochures, reports, studies, description of similar assignments, references to cases in which it has provided similar services, experience in similar conditions, availability

of appropriate skills among staff, etc.)

3.3 Estimated budget: **US\$400,000**

## **Annex A. Draft Terms of Reference**

Please note that the attached Terms of Reference may be subject to changes by the Bank. The CF that have been shortlisted will be notified of these changes.

### **ANNEX A – Terms of reference**

#### **1. Background and Justification**

- 1.1. This Terms of Reference defines Phase 2 of the Inter-American Development Bank's regional initiative to transform mining-anchored productive corridors in the Andean region into engines of inclusive, multi-sector economic growth. Building on the territorial and productive baseline established in Phase 1 (RG-T4878-P001), this 18-month consultancy will translate corridor identification into operational investment programs quantifying infrastructure gaps, estimating economic impacts, prioritizing interventions, and delivering decision-support tools that position high-impact projects for IDB financing and implementation.**
- 1.2. Phase 1 identified an ecosystem of candidate productive corridors across Bolivia, Colombia, Ecuador, and Peru where mining logistics infrastructure intersects with agricultural, manufacturing, and service sector concentrations. Phase 2 will transform this baseline into actionable investment roadmaps through eight integrated activities: (1) inception, workplan, and methodological framework; (2) geospatial infrastructure deficit analysis and gap assessment; (3) national-to-global value chain analysis and urban support areas to mining personnel; (4) corridor disruption assessment and risk mapping; (5) Infrastructure Investment Planning Framework and cost quantification; (6) economic impact assessment; (7) implementation framework, including institutional and governance analysis; and (8) development of an interactive decision-support platform.**
- 1.3. The consultancy will produce: prioritized corridor selection for deep-dive analysis; comprehensive infrastructure gap analyses with segment-level cost estimates across road, energy, digitization, and logistics portfolios; economic impact projections quantifying jobs, GDP, and export effects; trade competitiveness assessments; institutional strengthening recommendations; a transparent multi-criteria investment prioritization framework; and a web-based investment planning tool enabling governments and IDB teams to explore project scenarios and support lending operation preparation.**
- 1.4. The Andean countries—Bolivia, Colombia, Ecuador, and Peru—remain poorly integrated despite decades of regional cooperation initiatives. This fragmentation imposes significant economic costs: duplicated infrastructure investments, missed economies of scale, limited value chain integration, and reduced competitiveness in**

global markets. The critical minerals sector presents a strategic opportunity to overcome this impasse. The Andean region holds substantial reserves of copper, lithium, tin, zinc, and other minerals essential for the global energy transition. In 2023, extractive industries accounted for 50.3% of Colombia's exports and 57.7% of Peru's exports. Infrastructure investments designed to improve mining logistics can simultaneously unlock broader productive potential in agriculture, forestry, manufacturing, and services if strategically planned around multi-sector productive corridors.

**1.5. Phase 1 Foundation:** Between January and July 2026, the IDB executed Phase 1 (RG-T4878-P001), producing: (i) identification of productive corridors where mining infrastructure intersects with non-mining productive sectors. These corridors were based on the spatial distribution of key mineral mines and their deposits, while mapping routes that connect those locations to export points.

**1.6. Strategic Alignment:** This Technical Cooperation aligns with the IDB South Connection Regional Program (GN-3296-1), which prioritizes corridor-based development, regional coordination, evidence-based planning, and climate-resilient infrastructure. Phase 2 operationalizes these principles by translating Phase 1 baseline CAN Region-wide mining corridors into an actionable, decision-maker validated, investment programs with quantified impacts, transparent prioritization frameworks, and online decision-support tools. The operation is funded through OC-SDP Window 1 - Regional Public Goods (WIA).

## **2. OBJECTIVES**

### **2.1 General Objective**

To develop a strategic infrastructure investment plan for Andean productive corridors that translates the Phase 1 baseline into an operational portfolio of prioritized, economically justified, and institutionally feasible infrastructure interventions—enabling governments, the IDB, and private sector actors to mobilize financing and advance multi-sector corridor development across Bolivia, Colombia, Ecuador, and Peru.

### **2.2 Specific Objectives**

- Prioritize corridor investments through a transparent and systematic multi-criteria decision framework that identifies high-impact corridors for detailed analysis.
- Quantify infrastructure gaps in prioritized corridors through detailed, segment-level assessments of road, waterway, energy, and digital infrastructure gaps.
- Assess trade and export potential by analyzing current and potential export flows to key international markets across prioritized corridors.
- Develop an Infrastructure Investment Planning Framework (IPF) that identifies and develops comprehensive cost estimates to address key infrastructure deficits across four portfolios: Road, Energy, Digitization, and Logistics.
- Estimate economic impacts using Input-Output models to quantify employment, GDP, export, and fiscal effects of corridor investments.
- Build decision-support infrastructure through interactive visualization platforms that enable exploration of investment scenarios.
- Map governance and institutional requirements for successful corridor implementation, identifying regulatory reforms and coordination mechanisms needed.

## **3. SCOPE OF SERVICES**

**3.1** The consulting firm will implement eight (8) integrated activities over a 18-month period,



producing analytical outputs, infrastructure investment frameworks, and decision-support tools. Activities are designed sequentially, with each workstream informing subsequent phases.

#### **4. KEY ACTIVITIES**

##### **ACTIVITY 1: INCEPTION REPORT, WORKPLAN, AND METHODOLOGICAL FRAMEWORK**

###### **1.1 Purpose**

To establish the operational and analytical foundation for Phase 2 by developing a comprehensive Inception Report that defines the project workplan, detailed methodology for all activities, timeline with Gantt chart, key results framework, and data needs assessment. This activity ensures alignment between the IDB, consultant team, and country stakeholders on scope, approach, deliverables, and success metrics.

###### **1.2 Description of Activities**

The Consultant will prepare a comprehensive Inception Report serving as the governing document for Phase 2. The report will include: (i) Detailed Workplan outlining tasks, responsibilities, timelines, and interdependencies across all eight activities, presented as a Gantt chart showing critical path, milestones, and deliverable schedules for 18 months (ii) Provide Methodological Framework describing analytical approaches, tools, and quality assurance procedure, initial institutional mapping, Corridor Disruption Index (CDI) and risk mapping methodology, preliminary infrastructure cost estimation and prioritization approach, Input-Output (I-O) economic impact modeling methodology, and interactive results visualization dashboard development approach (iii) Key Results Framework defining measurable outputs and outcomes for each activity, establishing indicators, targets, and verification means; (iv) Data Needs Assessment cataloging required datasets (infrastructure inventories, trade statistics, economic tables, institutional registries, geospatial layers), identifying data needs and proposing acquisition strategies including government coordination, remote sensing, and stakeholder consultations; (v) Meeting and Communications considerations, including possible coordination mechanisms with IDB country offices, national ministries, infrastructure authorities, and regional organizations; (vi) Risk Management Matrix identifying technical, institutional, and operational risks with mitigation strategies; (vii) Quality Assurance Protocols establishing validation procedures, peer review processes, and acceptance criteria for deliverables. The Inception Report will be presented to IDB.

##### **ACTIVITY 2: GEOSPATIAL INFRASTRUCTURE DEFICIT ANALYSIS AND GAP ASSESSMENT**

###### **2.1 Purpose**

To quantify and characterize infrastructure deficits in prioritized corridors selected in the Phase 1 study, through detailed, segment-level assessments of road, waterway, energy, and digital infrastructure gaps using geospatial analysis and remote sensing methodologies. Produce georeferenced infrastructure gap maps and investment requirement estimates.

###### **2.2 Description of Activities**

The Consultant will conduct comprehensive infrastructure deficit assessments using advanced geospatial and data science methodologies. The approach integrates multiple data sources and spatial analysis techniques:

**Geospatial Data Acquisition and Integration:** Build on the data acquired during Phase 1 and complement where needed. Integrate corridor shapefiles from Phase 1, administrative boundaries, mining concessions, agricultural zones, and population density layers.

**Road Infrastructure Deficit Mapping:** It must apply segment-level analysis using GIS to assess road conditions along corridors. A jurisdiction analysis and classification of the road

infrastructure assets will be developed by developing an institutional review of infrastructure management including who is responsible for planning, execution and maintenance of assets. Methodologies include the following: Accessibility analysis using network analysis to calculate travel times, identify bottlenecks, and measure connectivity to productive zones. Waterway and Port Infrastructure Assessment will be reviewed for capacity constraints, requirements, and multimodal connectivity gaps when information is available. The consultant will research vessel data to analyze traffic patterns and port utilization.

**Energy Infrastructure Gap Analysis:** Map existing electricity transmission networks, substations, and generation facilities using OpenInfraMap, utility datasets, and nighttime lights imagery (VIIRS). Identify electrification gaps in corridor zones using gridded population data and infrastructure overlays. Model least-cost paths for transmission line extensions using terrain analysis and land use constraints.

**Digital Connectivity Mapping:** Integrate mobile coverage datasets (such as GSMA, OpenCellID), fiber optic network inventories, and internet speed test data to map digital infrastructure gaps. Apply least-cost modeling for fiber deployment along transport corridors.

The result of this activity will be an “Infrastructure Deficit Assessment” (IDA) Document, identifying and characterizing the deficits of each infrastructure system.

### **ACTIVITY 3: NATIONAL TO GLOBAL VALUE CHAIN ANALYSIS AND URBAN SUPPORT AREAS TO MINING PERSONNEL.**

#### **3.1 Purpose**

Analyze current and potential export flows from prioritized corridor territories to key international markets, identifying logistics bottlenecks, trade facilitation requirements, and market opportunities that infrastructure investments would unlock.

#### **3.2 Description of Activities**

The Consultant will develop comprehensive trade flow mapping for each corridor by compiling export data at HS 6-digit level from national customs databases, geo-attributing exports to corridor municipalities using production location data, and analyzing destination markets, transported volumes, and local value chains in a geospatial explicit way. Trade competitiveness analysis will assess corridor export products against global competitors, identifying market share trends, price competitiveness, and quality standards compliance.

The Local Value-Chain Assessment will be conducted by mapping the different stages of the mining value chain, by mapping and analyzing the geolocation and flows of materials and personnel. As part of this geospatial value chain analysis, the consultant will identify urban areas that support mining personnel (temporary or permanent) that provide basic commercial services to the mine operations. The result of this assessment will be an identification in the value chain of the ecosystem of towns and cities which economic activity is dependent on or highly related to the mining activity.

In addition, an export potential assessment will identify underexploited products with market demand, analyzing infrastructure constraints, limiting production scale-up and market access. Market access analysis could include the following: trade agreements, tariff regimes, and non-tariff barriers affecting corridor exports, identifying opportunities from regional integration frameworks. The analysis will produce corridor-specific Trade Opportunity Profiles documenting high-potential value chains, target markets, infrastructure requirements, and estimated export growth scenarios under different investment packages.

### **ACTIVITY 4: CORRIDOR DISRUPTION ASSESSMENT AND RISK MAPPING**

#### 4.1 Purpose

Systematically identify, georeference, and quantify disruptions affecting the key selected corridors by mapping civil unrest events, manifestations, blockages, natural hazard impacts, and logistical disturbances. Develop a Corridor Disruption Index (CDI) to evaluate the degree and frequency of disruptions and shocks experienced by each corridor, enabling infrastructure investment prioritization that accounts for operational reliability and resilience requirements.

#### 4.2 Description of Activities

The Consultant will conduct comprehensive disruption mapping across key selected corridors by systematically georeferencing and cataloging four categories of disturbances from open available data affecting logistics network performance: civil unrest and social disturbances (protests, demonstrations, blockages), road blockages and logistics interruptions (both intentional and unintentional obstructions), historical natural hazards and their effects (landslides, flooding, earthquakes, extreme weather), and country-specific logistics network disruptions (port congestion, border inefficiencies, customs delays, seasonal accessibility limitations). Each disruption event will be precisely documented with geospatial coordinates, temporal data, underlying causes, and estimated economic impacts using diverse data sources including news archives, government reports, NGO databases, DesInventar disaster records, remote sensing imagery, and social media analysis.

The methodology will produce a Corridor Disruption Index (CDI) that quantifies cumulative disruption risk on a normalized scale by integrating frequency metrics (events per year), duration metrics (cumulative downtime), severity metrics (corridor percentage affected and economic losses), and predictability metrics (seasonal versus random patterns), enabling cross-corridor comparison and investment prioritization. All georeferenced disruption data will be integrated into the decision-support platform (Activity 8) as an interactive Disruption Risk Map layer, producing corridor-specific Disruption Risk Profiles that document historical patterns, identify high-risk segments, quantify economic costs, and recommend resilience interventions including alternative routes, early warning systems, coordination protocols, and climate adaptation measures for incorporation into the Infrastructure Investment Planning Framework.

### ACTIVITY 5: INFRASTRUCTURE INVESTMENT PLANNING FRAMEWORK (IPF) AND COST QUANTIFICATION

#### 5.1 Purpose

Develop a comprehensive Infrastructure Investment Planning Framework (IPF) that prioritizes, sequences, and costs infrastructure interventions across prioritized corridors. Quantify and determine the global cost of addressing infrastructure needs through detailed engineering-informed cost estimation methodologies.

#### 5.2 Description of Activities

The Consultant will develop the Infrastructure Investment Planning Framework integrating the deficits assessments from Activity 2 into actionable investment portfolios and considering corridors with the highest market potential (Activity 3) and Corridor Disruption Index (CDI) from Activity 4. The framework will organize interventions into four IPF portfolios: (i) Road Infrastructure Portfolio including potential rehabilitation, new segments improvement, bridge construction, and road safety measures; (ii) Multimodal Connectivity Portfolio covering port improvements, waterway navigation, and intermodal terminals; (iii) Enabling Infrastructure Portfolio addressing electrification, telecommunications, and border crossing facilities; (iv) Resilience and Sustainability Portfolio including climate adaptation measures, environmental mitigation, and disaster risk reduction.



**Cost Quantification Methodology:** Apply a global costing estimation using: (i) Unit cost databases from national infrastructure agencies, IDB project archives, or other regional construction cost indices; (ii) Parametric cost models relating investment requirements to physical parameters (road kilometers, transmission line lengths) adjusted for terrain difficulty, remoteness as a proxy for construction complexity; (iii) Contingency allowances for design development (10-15%), construction risks (10-20%), and price escalation over implementation periods. Global cost determination will aggregate investments by portfolio, corridor, country, and time horizon (short-term 0-3 years, medium-term 4-7 years, long-term 8-12 years), producing: (i) Total Investment Requirements by corridor ranging from baseline scenarios (critical interventions only) to comprehensive scenarios (full gap closure); (ii) Cost-Benefit Matrices presenting investment costs against expected benefits (such as travel time savings, logistics cost reductions, trade facilitation, economic impacts); (iii) Financing Strategy considerations assessing possible instruments, private sector participation opportunities, and blended finance structures. The IPF will deliver a comprehensive Investment Catalog documenting each intervention, cost estimates, implementation considerations, expected benefits, and financing recommendations, enabling country authorities and IDB to translate analysis into bankable project pipelines.

## **ACTIVITY 6: ECONOMIC IMPACT ASSESSMENT**

### **6.1 Purpose**

Quantify economic returns from corridor infrastructure investments through comprehensive economic impact modeling, estimating direct, indirect, and induced effects on employment, GDP, exports, and fiscal revenues at national and regional levels.

### **6.2 Description of Activities**

The Consultant will develop national and regional economic models by acquiring Input-Output (I-O) tables from national statistics offices, updating using RAS method where necessary, and constructing regional I-O tables for corridor territories using location quotients and regional economic data. Infrastructure investment scenarios will model spending patterns across construction sectors, equipment suppliers, and services, tracing economic multipliers through supply chains. The analysis will include and quantify the following considerations. These will be validated and approach approved and prioritized with the bank: (i) Direct employment in construction; (ii) Indirect employment in materials production, transport, and business services; (iii) Induced employment; (iv) GDP impacts through value-added generation. The modeling will incorporate dynamic effects including: productivity gains from reduced transport costs, market access improvements, and agglomeration economies from enhanced connectivity. Results will be presented as Economic Impact Profiles for each corridor, showing employment generation (job-years), GDP contribution (percentage points), export growth (annual percentage), and fiscal returns (benefit-cost ratios), enabling comparison of economic returns across investment scenarios and informing prioritization decisions.

## **ACTIVITY 7: IMPLEMENTATION FRAMEWORK, INCLUDING INSTITUTIONAL AND GOVERNANCE ANALYSIS**

### **7.1 Purpose**

Map the institutional environment shaping corridor implementation by identifying responsible entities, regulatory constraints, coordination mechanisms, and governance reforms required for successful project execution and long-term corridor management.

### **7.2 Description of Activities**

The Consultant will conduct institutional responsibility mapping identifying all entities with corridor mandates across national ministries (transport, mining, agriculture, trade), infrastructure authorities (road agencies, port authorities, utilities), subnational

governments (departments, municipalities), and regulatory bodies (environmental, land use, concessions). Governance structure analysis will document decision-making hierarchies, budget authorities, procurement processes, and inter-institutional coordination mechanisms. Regulatory framework assessment will identify legal and regulatory constraints affecting infrastructure development including environmental permitting, land acquisition, right-of-way regulations, concession frameworks, and public-private partnership legislation. Stakeholder mapping will identify key actors including government agencies, private sector investors, community organizations, indigenous groups, and civil society, analyzing their interests, influence, and potential opposition or support for corridor investments. Implementation capacity assessment will evaluate technical capabilities, financial resources, project management systems, and institutional gaps requiring capacity building. The analysis will produce an Implementation Roadmap documenting: (i) Institutional arrangements for corridor governance including coordinating committees, technical secretariats, and stakeholder forums; (ii) Regulatory reform agenda identifying legal changes required to accelerate project implementation; (iii) Technical assistance requirements, and knowledge transfer mechanisms; (iv) Public engagement strategy defining consultation processes, grievance mechanisms, and benefit-sharing frameworks for affected communities; (v) Monitoring and evaluation framework establishing performance indicators, reporting systems, and accountability structures for corridor implementation. The framework will position corridors for successful execution by clarifying roles, addressing institutional bottlenecks, and building stakeholder consensus.

## **ACTIVITY 8: DEVELOPMENT OF INTERACTIVE DECISION-SUPPORT PLATFORM**

### **8.1 Purpose**

Synthesize analyses from Activities 2-7 into an interactive web-based decision-support platform that enables IDB, government authorities, and stakeholders to explore corridor investment scenarios, visualize infrastructure gaps, assess economic impacts, and prioritize interventions through dynamic filters and scenario modeling tools.

### **8.2 Description of Activities**

The Consultant will develop a comprehensive Investment Planning and Visualization Platform with integrated modules: (i) Corridor Explorer featuring interactive maps displaying infrastructure networks, gap locations, investment heat maps, and disruption risk layers with zoom, filter, and overlay capabilities; (ii) Infrastructure Dashboard providing searchable inventory of interventions with technical specifications, cost estimates, implementation timelines, and geospatial coordinates; (iii) Institutional Navigator presenting stakeholder directory, responsibility matrices, and governance frameworks; (iv) Project Prioritization Module implementing multi-criteria decision analysis incorporating Economic Impact, Cost-Effectiveness, Strategic Importance, Institutional Feasibility, and Trade Competitiveness criteria with user-adjustable weights producing scored rankings with sensitivity analysis.

The platform will be built on open-source technologies (PostgreSQL/PostGIS, GeoServer, React/Leaflet) ensuring IDB sustainability, implement responsive design. The platform will be designed in Spanish.

## **5. EXPECTED OUTCOMES AND DELIVERABLES**

5.1 The consultancy will produce 8 formal deliverables across 8 activities over 18 months. This section presents both a strategic overview of key outputs and a detailed specification of deliverable items. Payments will be tied to deliverable approval following IDB quality review processes. All deliverables must be submitted in digital format (PDF for reports, Excel/CSV for data, shapefiles for GIS, functional URLs for web platforms) with

comprehensive metadata and documentation.

## 6. PROJECT SCHEDULE AND MILESTONES

6.1 The following table presents the primary deliverable from each activity, summarizing the scope, key outputs, and timeline:

| Activity                                                              | Key Deliverable                                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                     | Timeline |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. Inception                                                          | Inception Report                                                                         | Comprehensive workplan and Gantt chart for the 18-month period; methodological framework for all eight activities; Data Needs Assessment; Key Results Framework; Risk Management Matrix; Quality Assurance Protocols; and coordination and validation arrangements, including the indicative schedule for monthly progress meetings, quarterly stakeholder workshops, technical working groups, Mid-Term Review, and Final Validation Workshop. | Month 1  |
| 2. Infrastructure Deficit Analysis                                    | Geospatial Infrastructure Deficit assessment Report                                      | Progress report on geospatial infrastructure deficits analysis and gap assessment                                                                                                                                                                                                                                                                                                                                                               | Month 4  |
| 3. GeoSpatial Mining Value Chain & Assessment and Corridor disruption | Process Report - Geospatial Mining Value Chain, Trade and Urban Support Areas Assessment | Value chain and trade flow analysis and export market potential assessment Analysis, results and characterization of the set of Corridors and their disruption assessment and risk mapping                                                                                                                                                                                                                                                      | Month 6  |
| 4. Corridor Disruption Assessment and Risk Mapping                    | Corridor Disruption Assessment and Risk Mapping Report                                   | Corridor export mapping, logistics bottleneck identification, and market opportunity analysis with gravity model estimates                                                                                                                                                                                                                                                                                                                      | Month 8  |
| 5. Infrastructure Investment Planning                                 | Infrastructure Investment Planning Framework (IPF)                                       | Prioritized infrastructure interventions based on the results of Activities 2–4, with indicative/preliminary cost estimates for comparison and                                                                                                                                                                                                                                                                                                  | Month 10 |

|                                         |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |
|-----------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
|                                         |                                                                            | <i>prioritization across the infrastructure portfolios. A Mid-Term Review will be conducted in Month 9, prior to the completion of D5, to review progress, results to date, outstanding issues, and the approach for the remaining activities.</i>                                                                                                                                                                    |                 |
| <b>6. Economic Impact</b>               | <b>Economic Impact Analysis Report + I-O Calculator</b>                    | <i>Input-Output modeling quantifying employment, GDP, export, and fiscal effects; includes Excel-based scenario tool</i>                                                                                                                                                                                                                                                                                              | <b>Month 14</b> |
| <b>7. Governance &amp; Institutions</b> | <b>Comprehensive Phase 2 Synthesis Report and Implementation Framework</b> | <i>Final report integrating the main findings and results of the consultancy, including institutional responsibilities, key regulatory and implementation constraints, coordination requirements, investment prioritization, and recommendations. A Final Validation Workshop will be conducted prior to submission of the final version of D7, and relevant comments will be incorporated into the final report.</i> | <b>Month 17</b> |
| <b>8. Prioritization &amp; Platform</b> | <b>Prioritization Framework + Decision-Support Platform</b>                | <i>Interactive web-based platform with scenario modeling and explorer tools</i>                                                                                                                                                                                                                                                                                                                                       | <b>Month 18</b> |