

TERMS OF REFERENCE

Building a Dynamic Vulnerability Measure for IDB Borrowing Member Countries in Latin America and the Caribbean

REGIONAL

RG-T4639

I. Background and Justification

1.1 The IDB Group's new Institutional Strategy Transforming for Scale and Impact (2024 – 2030) sets the strategic direction for the organization through 2030. This strategy aims to evolve the IDB Group's operational model to better serve its clients and deliver impactful results in a dynamic regional and global context. The strategy is built around three mutually reinforcing objectives: promoting sustainable development, enhancing institutional capacity, and fostering regional integration. By aligning its efforts with these objectives, the IDB Group seeks to address the unique challenges faced by Latin America and the Caribbean, including economic instability, social inequality, and environmental vulnerabilities. The strategy emphasizes the importance of measuring outcomes and developing top-line indicators to ensure that the impact of its initiatives remains at the forefront of its efforts.

1.2 In line with the new Institutional Strategy, the IDB Group is revisiting its concessional framework to address better the needs of the poorest and most vulnerable countries in the region. This involves creating incentives that tackle vulnerability and address regional and global shared challenges. The strategy recognizes that vulnerability is multidimensional, encompassing economic, social, environmental, and institutional factors. By incorporating these dimensions into its concessional framework, the IDB Group aims to allocate resources more effectively to countries that are most at risk from external shocks and climate change.

1.3 The current IDB's concessional framework has its origins in the establishment of the Fund for Special Operations (FSO) in 1959, which aimed to provide concessional resources to the region's poorest countries. Over the years, the framework has evolved to better address the needs of these countries. In 2002 a new performance-based allocation system was adopted for determining access to concessional resources. On June 19, 2002 the Board of Executive Directors approved document GN-1856-31 "Proposal for a Performance Based Allocation of FSO Resources". On February 21, 2007, the Board approved document GN-2442 "Implementation of multilateral debt relief and concessional finance reform at the IDB. Proposal for the implementation of a Debt Sustainability (DSF) and Enhanced Performance-Based Allocation (EPBA) framework. Since then, the IDB delivers on a biennial basis an allocation of concessional resources for consideration of the Board of Executive Directors under four major components: (i) country eligibility; (ii) total amount

of resources (envelope) to be allocated; (iii) performance-based allocation (PBA) system; and (iv) level of concessionality of a country's allocation. Currently, the IDB's eligibility for concessional resources (AB-3066-2) approved in 2016 sets income as the key eligibility criterion to access concessional resources through per capita income, ensuring that resources are directed to countries most in need. The last allocation approved for the Board of Executive Directors was for the 2023-2024 period and included Haiti, Nicaragua and Honduras as beneficiaries based on access criteria.

1.4 The IDB Group's new Institutional Strategy approved in March 2024, Transforming for Scale and Impact (2024 – 2030) (CA-631) mandates to revisit the Bank's concessional finance framework to address better the needs of the poorest and most vulnerable countries in the region. This involves going beyond the income-based methodologies, setting vulnerability as an eligibility criterion, and creating incentives to address regional and global shared challenges. The strategy also recognizes that vulnerability is multidimensional, encompassing economic, social, environmental, and institutional factors. The mandate of the Institutional Strategy also calls Management to work on a definition of vulnerability that can be applied across the IDB group to be addressed by operations that remains consistent across all Group entities and takes into consideration MDB work in this area and best practices, including the multi-dimensional nature of vulnerability.

1.5 Against this backdrop, the IDB is leveraging in-house expertise and international best practices on vulnerability definitions (e.g., climate) and metrics to dynamically classify borrowing member countries and transition to a vulnerability-anchored Concessional Resource Allocation Framework. To support this effort, the Bank seeks a consulting firm to design a comprehensive framework and methodology to assess vulnerability in Latin America and the Caribbean, while advancing knowledge production on vulnerability, fragility, and resilience

II. Objectives

2.1 This consultancy seeks to support the IDB's transition to a vulnerability-anchored concessional finance framework by achieving the following objectives:

- Develop a conceptual framework for assessing vulnerability in IDB borrowing member countries, incorporating economic, environmental, social, and institutional dimensions.
- Create a replicable and transparent methodology to evaluate country-level exposure to exogenous shocks and resilience capacities, ensuring alignment with regional needs and international best practices.
- Produce a vulnerability ranking system to prioritize countries based on their assessed vulnerability. This will facilitate the eligibility and allocation for concessional resources.

III. Key Activities

3.1 Develop a conceptual framework for assessing vulnerability to external shocks with a clear methodology and a ranking system for IDB borrowing member countries. This will include developing metrics to evaluate their capacity to respond to, manage, and recover from these shocks. The evaluation must consider critical factors such as institutional strength, economic resilience, and social stability.

3.2 The system must:

- Incorporate clear and transparent metrics to assess vulnerability, response, and recovery capacity.
- Establish a working definition of vulnerability, identifying relevant sub-variables with clear justifications and reliable data sources.
- Justify the selection of variables and dimensions, ensuring alignment with regional needs and international best practices.
- Include a flexible weighting system for the selected dimensions, allowing for adjustments in line with evolving corporate priorities.
- Ensure replicability by using publicly available and reliable data sources.
- Be validated by the Bank's technical team before data collection.
- The methodology should determine the impact of shocks on the region and include flexibility to adjust to corporate priorities.

3.3 Compile findings into an analytical report that outlines the defined vulnerability framework, methodology, data sources, rationale for metrics, and ranking results.

IV. Expected Outcome and Deliverables

4.1 Conceptual Framework and Ranking System: A document defining vulnerability, detailing the conceptual framework, selected variables, data sources, and the ranking methodology for LAC countries.

4.2 The proposed vulnerability ranking system will focus solely on exogenous sources of shocks and trends, excluding influences from domestic policy decisions or endogenous developments. The methodology will be grounded in a transparent, logical chain linking exogenous vulnerability sources to country-level exposure and resilience.

4.3 The methodology will consider :

4.3.1 Dimensions of Vulnerability. The index will be broken down into two primary dimensions:

- I. **Exposure to areas of vulnerability (by Shock Types):** This dimension identifies and incorporates indicators corresponding to the exogenous sources most relevant to LAC countries, whether it is recurring or progressive, taking into account both the magnitude of the shocks and the level of each country's exposure. Exposure is understood as the likelihood or intensity of being affected by a specific shock, independent of domestic decision-making factors (e.g., geographic location, proximity to fault lines).

4.3.1.1 Proposed components include:

- Natural Disasters: Frequency and intensity of events such as earthquakes, hurricanes, and floods.
- Climate Change: Shocks of extreme temperature, sea level changes, and extreme precipitation events.
- Cross-Border Migration: Inflows of migrants caused by crises in neighboring countries.
- Pandemics: Health crises with regional or global impacts, measured by for, example, excess deaths.

II. **Resilience:** Captures the capacity to absorb, respond to, and recover from shocks, which depends on domestic factors and policy (e.g., infrastructure quality, emergency response systems). Identify variables and indicators that measure overall capacity and structural resilience deficits. Consider policies and programs that improve resilience, such as diversification to reduce economic concentration in high-risk sectors, the existence of early warning systems, and investments in mitigation measures.

4.3.2 Measurement Approach. A set of well-defined indicators, available in reputable databases, will represent each source of vulnerability. Each indicator should be classified into one of two types of variables:

- Exposure Variables: Quantifying the exogenous event's frequency and/or magnitude.
- Resilience Variables: Measure the ability to mitigate or adapt to the event's impacts.

4.3.3 Weighting Scheme. Detail the weighting of dimensions so that the Bank's team can update these to reflect corporate priorities in the future. The index will offer two alternative weighting approaches:

- Uniform Weights: Equal weights for all variables, ensuring an agnostic and neutral perspective.
- Contextual Weights: Weights determined by either (i) Economic Relevance, Based on the relative economic costs associated with

each source of vulnerability (e.g., percentage of GDP affected by disasters) or (ii) Statistical Relevance, Using methods like Principal Component Analysis (PCA) to assign weights based on the variance explained by each variable.

4.3.4 Data Sources and Variable Selection. All variables will be selected based on i) Availability in formal/official databases (e.g., World Bank, IMF, UN, IDB). ii) Coverage across all IDB borrowing countries. iii) Temporal consistency for comparability over time.

4.3.5 Aggregation of the Index. The index will be constructed as a weighted sum of exposure and resilience components. A breakdown by thematic source of vulnerability (pandemics, disasters, etc.) should also be presented.

4.4 Products

- **Deliverable 1: Conceptual Framework of the vulnerability metric** and indicator selection, including a broad draft classification of the shocks and overview of the ranking system. This first report must contain a literature review section that summarizes the main analytical underpinnings of the areas of vulnerability and resilience and their relative impact to IDB's lending member countries, as well as a summary of the main vulnerability indices existing among other multilateral organizations and other widely used rankings.
- **Deliverable 2: Full methodological approach** including the proposed ranking system validated by the IDB's technical team; summary statistics of the vulnerability components (exposure and resilience) as well as computer code associated with data collection, cleaning and description.
- **Deliverable 3: Estimated results** and sensitivity analysis.
- **Deliverable 4:** Compilation of all results into the final report. The document must be previously validated in a workshop with the technical team.

V. Reporting Requirements

5.1 The consulting firm will report administratively to Alejandro Carrión, Operations Senior Specialist, VPC-VPC, under the technical guidance of the Working Group on Concessionally and Vulnerability. The Firm shall be responsible for ensuring the meetings and submitting the reports to the Bank.

VI. Acceptance Criteria

6.1 All deliverables, including the vulnerability ranking system and final report, must be validated through workshops and sensitivity analyses, ensuring robustness and applicability.

6.2 Workshops are expected to take place approximately every two weeks to monitor progress effectively.

VII. Project and Payment Schedule

Deliverables	%	Payment schedule
Contract signature	10	
Output 1	20	1 month from the signing of the agreement
Output 2	25	2.5 months from the signing of the agreement
Output 3	25	3.5 months from the signing of the agreement
Output 4	20	4.5 months from the signing of the agreement
Total	100	

VIII. Supervision

8.1 The consulting firm will submit the report in English and Spanish by e-mail to Alejandro Carrion, Operations Senior Specialist, VPC-VPC. The reports shall include the products cited and detail the activities using the relevant description.