

Technical Cooperation Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Supporting the implementation of net-zero strategies
▪ TC Number:	RG-T4252
▪ Team Leader/Members:	Vogt-Schilb, Adrien (CSD/CCS) Team Leader; Delgado, C. Raul (CSD/CCS) Alternate Team Leader; Ashton, Cristina (CSD/CCS); Gomez, Juan Carlos (CSD/CCS); Hipolito Talbotwright (CSD/CCS); Mendoza Benavente, Horacio (LEG/SGO); Sara Carias (CSD/CCS) Benavente, Horacio (LEG/SGO); Sara Carias (CSD/CCS)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	April, 2023
▪ Beneficiary:	Borrowing member countries
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC SDP Window 2 - Sustainability(W2A)
▪ IDB Funding Requested:	US\$300,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period:	24 months
▪ Required start date:	June 2023
▪ Types of consultants:	Firms and individual consultants
▪ Prepared by Unit:	CSD/CCS-Climate Change
▪ Unit of Disbursement Responsibility:	CSD/CCS-Climate Change
▪ TC included in Country Strategy:	No
▪ TC included in CPD:	No
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Productivity and innovation; Institutional capacity and rule of law; Environmental sustainability

II. Objectives and Justification

- 2.1 Stopping the climate crisis requires ambitious policy reforms from all countries. Through the Paris Agreement, global leaders have pledged to stabilize the global temperature increase between 1.5 and 2°C.¹ The Intergovernmental Panel on Climate Change (IPCC) states that these targets require reaching net-zero carbon emissions by around 2050.² Achieving net-zero emissions is technically possible by leveraging: (i) decarbonization of electricity production; (ii) electrification of transport and other energy uses; (iii) public transportation; and (iv) preservation and restoration of natural carbon sinks such as forests or mangroves.³
- 2.2 The transition to net-zero emissions comes with economic opportunities, including the creation of 15 million net jobs in Latin-America and the Caribbean (LAC) by 2030.⁴

¹ United Nations, "Paris Agreement", 2015.

² IPCC 2023, Intergovernmental Panel on Climate Change. *Climate Change, Synthesis Report*.

³ IDB, DDPLAC 2019. [Getting to Net-Zero Emissions: Lessons from Latin America and the Caribbean](#).

⁴ IDB and ILO, 2020. [Jobs in a net-zero emissions future in Latin America and the Caribbean](#).

Yet, getting to net zero will require anticipating and managing hurdles to the transition, notably social⁵ and fiscal⁶ costs, and overcoming regulatory barriers that prevent the private sector's adoption of zero-carbon solutions.⁷ To guide the necessary transformations, countries are invited by the Paris Agreement (Art. 4.19) to formulate and communicate Long-Term Low-emission Development Strategies (LTS). The LTSs will help countries set up their vision of a decarbonized economy and identify cross-cutting and sectoral policy roadmaps to be deployed over time to achieve their vision in an economically beneficial and socially just manner.

- 2.3 There is a strong latent demand to support LTS design and implementation in the region. Eleven countries in the region have pledged or committed to reach net-zero emissions, most of them by 2050,⁸ and eight countries have already submitted their LTS.⁹ However, of the countries who submitted their LTS only four of them have published an LTS.¹⁰ More countries may choose to design updated LTS consistent with decarbonization goals, and some may choose to advance with sector or subnational level strategies instead of national strategies. In addition, operationalizing existing LTS also requires further work, to design sector and subnational plans aligned with the LTS¹¹. Indeed, sector ministries and local governments hold responsibilities in many areas where action is necessary to achieve emission reductions. For instance, electricity generation and distribution are usually managed by ministries of energy, which will have to develop strategies and policies to phase out fossil fuels. Similarly, waste management, which can significantly contribute to methane emissions, is usually the responsibility of local authorities. The Chilean climate change law, which requires the design of sector and municipal decarbonization plans consistent with its LTS, illustrates this need.¹²
- 2.4 This TC seeks to produce research to inform the development and implementation of net-zero strategies in the region. This TC will help countries develop, communicate, and implement LTSs at the national, sector, or subnational levels. Within the beneficiary countries, this TC will help ministries of the environment, sectorial ministries, and subnational governments.
- 2.5 This TC builds on IDB research that shows that LTS will be essential to guide short and medium-term actions across government agencies,¹³ or in specific sectors.¹⁴ It also builds on lessons learned in the execution of previous TCs supporting the design of net-zero plans in the region. The Deep Decarbonization Pathways LAC project (ATN/MC-16271-RG) helped develop the capacity of local academia to investigate

⁵ Vogt-Schilb, et al, 2019. [Cash transfers for pro-poor carbon taxes in Latin America and the Caribbean](#).

⁶ Vogt-Schilb et al., 2021 [Policy options to mitigate the fiscal impact of road transport decarbonization: the case of Costa Rica](#); IDB, 2019. [Implications of Climate Targets on Oil Production and Fiscal Revenues in Latin America and the Caribbean](#).

⁷ Fazekas et al., 2022. [Achieving Net-Zero Prosperity: How Governments Can Unlock 15 Essential Transformations](#).

⁸ Antigua and Barbuda, Argentina, Barbados, Belize, Brazil, Colombia, Chile, Costa Rica, Ecuador, Panama, and Uruguay. All but Barbados (2030) and Antigua and Barbuda (2040) have pledged to reach net-zero emissions by 2050. Net Zero Tracker. <https://zerotracker.net/>.

⁹ Argentina, Belize, Chile, Colombia, Costa Rica, Guatemala, Mexico and Uruguay

¹⁰ Chile, Colombia, Costa Rica, and Uruguay. <https://unfccc.int/process/the-paris-agreement/long-term-strategies>.

¹¹ Jaramillo, M., Saavedra, V., 2021. NDC Invest: [Supporting Transformational Climate Policy and Finance](#).

¹² Gobierno de Chile LEY 21455 <https://www.bcn.cl/leychile/navegar?idNorma=1177286>.

¹³ [Fazekas et al, 2022](#); [Bataille et al, 2020](#) ; [Calcufoy et al, 2022](#).

¹⁴ [Dumas et al., 2022](#).

emission reduction pathways in Argentina, Colombia, Costa Rica, Ecuador, Peru, and Mexico.¹⁵ One achievement was to support the government in Costa Rica's design its LTS, which includes more than 70 targets for 35 different government agencies and line ministries and served as a basis for an IDB policy-based program.¹⁶ Under ATN/FR-18228-RG, the IDB supported the design of an LTS in Chile¹⁷, Colombia¹⁸, and Peru (in progress); under ATN/FR-19501-GU we are supporting the design of an LTS for Guatemala; and under ATN/CF-19896-CH we are supporting the translation of the Chilean LTS into sectoral and subnational plans.

- 2.6 We highlight three lessons learned from the work mentioned above. First, working with local actors is important to leverage local knowledge and build capacity in the country, allowing to further climate policy analysis after the TC ends. Second, engaging with local stakeholders is crucial to gather key inputs to be included in the development of net-zero strategies. Finally, for IDB support to lead to the development of climate strategies, it is crucial to count on interest from beneficiary countries. This TC is designed with these lessons in mind.
- 2.7 This TC aspires to replicate the successes in Costa Rica, Chile, Colombia, and Peru in more countries in the region. The desired outcome is to see countries submit net-zero LTS to the UNFCCC and publish sectorial and subnational action plans to operationalize LTSs – both using insights produced under this TC.
- 2.8 Research funded under this TC should be a foundation to further the development of climate policy among borrowing members of the IDB. We will thus focus on producing knowledge that is usable by most countries in the region or target specific countries where our support can be transformational. When working at the country level, we will select countries who show interest in developing long-term climate strategies at the national, sector or subnational level. Transformational means that the activities carried on by this TC would fill a knowledge gap in the country that is difficult to fill otherwise, or that the project is innovative and has potential to serve as a pilot to be replicated in other countries of the region. We hope this TC will create demand for future IDB policy-based loans by creating capacity at the ministries of the environment, key government sectors, and subnational governments. Finally, this TC is expected to generate further demand for similar projects in the future, and support efforts by the global development community and other countries to design and implement decarbonization strategies in the context of the Paris Agreement.
- 2.9 This operation is consistent with the Update to the Institutional Strategy (AB-3190-2) and is aligned with the development challenge of *productivity and innovation* as it provides training for government agencies and academia in cutting-edge climate modeling methodologies, and it generates innovative knowledge to assist countries in the design of better climate policy. It is also aligned with the cross-cutting themes of: (i) *climate change and environment sustainability*, as it seeks to enhance the planning capacity of governments in the design of LTS, which are critical to respond to the objectives of the Paris Agreement to limit the global temperature rise to well below 2°C; and (ii) *institutional capacity and the rule of law*, as it seeks to strengthen the

¹⁵ IDB, DDPLAC, 2019. [Getting to Net-Zero Emissions: Lessons from Latin America and the Caribbean](#).

¹⁶ Arguello, R., Delgado, R., Espinosa, M., Gonzalez, T., Sandoval, J.M., 2022. [Cost-benefit analysis of options to achieve net-zero emissions in Colombia](#). Inter-American Development Bank.

¹⁷ Vogt-Schilb et al, 2022. [Opciones para lograr la carbono-neutralidad en Chile: una evaluación bajo incertidumbre](#).

¹⁸ Arguello et al, 2022. [Cost-benefit analysis of options to achieve net-zero emissions in Colombia](#).

capacity of relevant institutions that intend to improve their long-term planning to tackle climate change and seize development opportunities.

- 2.10 This operation contributes to the Corporate Results Framework 2020-2023 “Emissions avoided (annual tons CO₂ equivalent)”, advancing the Climate change and Environmental Sustainability priority. Additionally, the project is aligned with the Sector Framework Documents of: (i) Climate Change (GN-2835-8) as it “helps countries design, strengthen and implement their NDC and LTS”; (ii) Energy (GN-2830-8) by favoring the diversification of energy portfolios; (iii) Transport (GN-2740-12) by supporting electromobility strategies; and (iv) Housing and Urban Development (GN-2732-11) by “incorporating the Net-Zero Emission Goal in Urban Plans”. Finally, the operation is directly aligned with the first objective of the Ordinary Capital Strategic Development Program Window 2 (GN2819-14) “expand the knowledge base on climate change mitigation, adaptation, and sustainable energy geared towards leveraging climate investment”.

III. Description of Activities/Components and Budget

- 3.1 **Component 1. Assess politically acceptable emission-reduction pathways at the national level (US\$85,000).** This component will finance modeling work with local institutions to inform the design of emission-reduction strategies in terms of their economic benefits, stranded assets risks, distributional incidence, and fiscal impacts. We will work with national and international experts to identify key necessary transformations that must happen to achieve decarbonization commitments, what barriers exist for such transformations to materialize, what policies or interventions government should do to achieve such transformations and lift existing barriers, and what additional capacities governments need.
- 3.2 **Component 2. Assess politically acceptable emission-reduction pathways at the subnational level (US\$85,000).** This component will fund research that can be used by subnational governments in developing their own emission reduction strategies. Activities on this component include analyzing the necessary transformations to move towards carbon neutrality at the local level, the social and economic impact of decarbonization pathways at a territorial level, identifying public policies to achieve said transformations, and assessing institutional attributions.
- 3.3 **Component 3. Assess emission reduction pathways at the sector level (US\$85,000).** This component will finance research that can be used to inform the design of sector-level emission reduction strategies and help build capacity for further implementation by line ministries who are in the front line. It will finance quantitative and qualitative studies to evaluate the evolution of greenhouse gas emissions over time, possible paths toward carbon neutrality at the sectoral level, sources of transition risks, and options to reduce them.
- 3.4 **Component 4. Stakeholder engagement, communication, and dissemination (US\$45,000).** We will fund stakeholder engagement workshops to promote national, sectoral, and subnational policy dialogue with relevant actors to guide the development of reduction pathways with key expert insights, validate the results from studies under the other components, and ensure buy-in and relevance. The Bank will also communicate lessons learned to a wide regional and global audience of policymakers, policy analysts, academia, donor countries, and the public. The

dissemination of lessons learned will consist in the publication of the products developed under the three previous components, press release notes, and seminars. Thus, this component will also fund typesetting, editing, and translation of the publications produced under the other components. It will also fund the participation of experts, government officials, involved in this project in dissemination events.

- 3.5 **Budget:** The total cost of this TC will be US\$300,000, funded from the Ordinary Capital Strategic Development Program Window 2.

Indicative Budget (US\$)

Activity/Component description	IDB/Fund	Total
Component 1. Assess politically acceptable emission-reduction pathways at the national level	85,000	85,000
Component 2. Assess politically acceptable emission-reduction pathways at the subnational level	85,000	85,000
Component 3. Assess emission reduction pathways at the sector level	85,000	85,000
Component 4. Stakeholder engagement, communication, and dissemination	45,000	45,000
Total	300,000	300,000

IV. Executing Agency and Execution Structure

- 4.1 The regional coverage of the activities to be performed and the limited technical capacity in the region available to coordinate this project position the IDB as the ideal executing agency for the operation. The execution will be carried out by the Climate Change Division of the IDB (CSD/CCS). Adrien Vogt-Schilb, Senior Climate Change Economist, will lead the operation and be responsible for overall quality control, alignment of the products with CCS strategy, and the leveraging of state-of-the art knowledge and all disbursements.
- 4.2 All activities to be executed under this TC have been included in the Procurement Plan (Annex IV) and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and; (c) GN-2303-28 for logistics and other related services.
- 4.3 The Bank will follow its procurement procedures. Prior to the start of any of the activities financed by this operation in a member country of the Bank, a non-objection letter will be obtained from the corresponding official liaison entity in the respective country.
- 4.4 Specialists from the Transport, Energy, Water and Sanitation, Competitiveness and Innovation, Housing and Urban Development, RND, and Research Divisions, IDB Invest and IDB Lab, will be invited to the national workshops to review the deliverables.

V. Major Issues

- 5.1 The main risks during a process of knowledge generation and dissemination would be that the results of the analysis do not reach policymakers and do not inform the policy design process, which is the ultimate goal of the operation. To mitigate this risk, the operation will fund stakeholder engagement workshops (Component 4) that will seek to: (i) listen to the requirements that local stakeholders consider most relevant for them to be able to provide them with studies that cater to their specific needs; and (ii) disseminate results from the analyses financed by the operation.

- 5.2 Risk that could compromise the product completion and/or quality must be considered and mitigated. When working at the sectoral and subnational level, the capacity of said institutions to reach a consensus on the execution of the TC and meet the stipulated deadlines should be considered. To minimize these risks, appropriate amounts of resources are provided for hiring high-quality international and national consultancies and cooperation with technicians from the Ministry of the Environment and the Ministry of Finance.
- 5.3 Another minor risk is that of changes of authorities and staff in the ministries and subsequent delays in necessary coordination activities and approvals, which would eventually delay the execution of the TC. To mitigate this effect, each proposal will be duly constructed and validated by the specialized governing body in each ministry to guarantee political and technical support. In addition, capacities and knowledge installed in the institutions will be left in place, especially with personnel at low risk of being displaced from their posts, to ensure the continuity and follow-up of the work.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to the Bank's policies in this operation.

VII. Environmental and Social Strategy

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

Required Annexes

[Results Matrix - RG-T4252](#)

[Terms of Reference - RG-T4252](#)

[Procurement Plan - RG-T4252](#)