TECHNICAL NOTE Nº IDB-TN-2968

The State of Fiscal Policy for Climate Action

2023 Baseline Survey for Latin America and the Caribbean

Huáscar Eguino
Marcio Alvarenga
Luis E. Gonzales

Inter-American Development Bank
Institutions for Development Sector
Fiscal Management Division

July 2024

The State of Fiscal Policy for Climate Action

2023 Baseline Survey for Latin America and the Caribbean

Huáscar Eguino
Marcio Alvarenga
Luis E. Gonzales

Inter-American Development Bank
Institutions for Development Sector
Fiscal Management Division

July 2024

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library

Eguino Lijerón, Huáscar.
The State of Fiscal Policy for Climate Action: 2023 Baseline Survey for Latin America and the Caribbean / Huáscar Eguino, Marcio Alvarenga, Luis Gonzáles Carrasco.
p. cm. — (IDB Technical Note ; 2968)
1. Environmental policy-Latin America. 2. Environmental policy-Caribbean Area. 3. Climatic changes-Economic aspects-Latin America. 4. Climatic changes-Economic aspects-Caribbean Area. 5. Climate change mitigation-Finance-Latin America. 6. Climate change mitigation-Finance-Caribbean Area. I. Alvarenga, Marcio. II. Gonzáles, Luis. III. Inter-American Development Bank. Fiscal Management Division. IV.. Inter-American Development Bank. Institutions for Development Sector. V. Title. VI. Series.
IDB-TN-2968

JEL Codes: H11, H23, H43, H50, H57, H60, H61, H81, 021,022, 054, Q50, Q54
Keywords: climate change, mitigation, adaptation, fiscal policy, fiscal management, sustainability fiscal, planning, budget, public investment, contracting, taxation, subsidies, climate financing, climate governance

http://www.iadb.org

The State of

FISCAL POLICY FOR CLIMATE ACTION

2023 Baseline Survey for
Latin America and the Caribbean

HUÁSCAR EGUINO
MARCIO ALVARENGA
LUIS E. GONZALES

IDB

The State of

FISCAL POLICY FOR CLIMATE ACTION

2023 Baseline Survey for Latin America and the Caribbean

HUÁSCAR EGUINO
MARCIO ALVARENGA
LUIS E. GONZALES

IDB

TABLE OF CONTENTS

INTRODUCTION AND ACKNOWLEDGEMENTS

Fiscal policy is a powerful tool for achieving greater resilience vis-à-vis extreme weather events and for decarbonizing economies. For fiscal policy to play this key role, the climate dimension must be integrated into all areas of intervention. This study reviews the progress made by Latin American and Caribbean countries in mainstreaming climate action into various areas of fiscal policy, namely: strategic framework and macroeconomic policy, expenditure policy and management, revenue policy and management, debt management and financing, and fiscal governance. Due to the varying degrees of the progress observed and the complexity involved in conducting the survey, the results presented in the study are restricted to a limited set of variables for which comparable information was available on official websites. Specifically, this report presents the state—or baseline situation—of climate action mainstreaming into the areas of responsibility of ministries of economy and finance as of mid-2023.

This study was conducted by Huáscar Eguino, Marcio Alvarenga, and Luis E. Gonzales, all consultants of the Fiscal Management Division of the Inter-American Development Bank. A large team of specialists and experts assisted with the survey and results validation, including Luis Alejos, María Dolores Almeida, Marco Buttazzoni, Fernando Cartes, Ana Cristina Calderón, Raúl Delgado, Zoila Llempen, Rudy Loo-Kung Agüero, Lorena Palomo, Amelí Torres, and Daniela Torres. The authors would like to thank these individuals for their valuable contributions and for their support in verifying the information presented in the document. Any inaccuracies that may have arisen from the survey are the sole responsibility of the authors.

Rudy Loo-Kung Agüero and Alejandro Rasteletti performed the final review of the manuscript. Special thanks also go to Sarah Schineller and Leslie Hunter for editorial review and to Sara Ochoa for the design and typesetting.

ABSTRACT

Ministries of economy and finance (MEFs) play an increasingly important role in the climate agenda since fiscal policy decisions have a major impact on the behaviors of economic agents and shape countries' development prospects. In this context, it is helpful to establish the extent to which MEFs are mainstreaming climate action into fiscal policy, whether they are doing so comprehensively or partially, which areas of fiscal policy show the greatest progress or gaps, and which countries in Latin America and the Caribbean (LAC) show the most progress and which the least. This report seeks to address these questions through a survey conducted in 2023 on 41 variables using data available on the official websites of government agencies or international organizations. The main findings of this study are the following: (i) the vast majority of MEFs in the LAC region have made some progress on mainstreaming climate action into fiscal policy/management, although very few do so in a comprehensive manner; (ii) from a comparative standpoint, the greatest progress has been made on strategic planning, macroeconomic fiscal management, and revenue policy and management; (iii) the least progress is observed in financing policy and expenditure policy/management; and (iv) among LAC countries, the top three performers are Chile, Colombia, and Costa Rica, despite major climate fiscal policy reforms pending in these countries. In conclusion, the information compiled can be useful for monitoring and evaluating future MEF actions in the area of climate change, and this report seeks to take the first step toward establishing a baseline in this regard.

CHAPTER 1

INTRODUCTION

INTRODUCTION

Throughout the Latin American and Caribbean (LAC) region, challenges posed by climate change are becoming increasingly significant. Hurricanes have ravaged the Caribbean and Central America, causing enormous economic and social losses; droughts and floods have damaged swaths of farmlands; sectors with outmoded and environmentally harmful technologies are rapidly losing jobs and competitiveness, and the energy transition is hurting the fiscal sustainability of fossil fuel-producing countries while opening up new employment opportunities. To meet these challenges, ministries of finance (MEF)[1] rely on a set of fiscal policy tools that have proven to contribute effectively to the goals set out in the Paris Agreement,[2] specifically to enforcing nationally determined contributions (NDCs) and long-term strategies (LTS) aimed at decarbonizing economies.[3]

To comply with the NDCs and the LTSs, the public sector is required to undertake a range of responsibilities with regard to the regulatory framework, including defining strategies, formulating public policies, establishing incentive schemes, allocating and deploying public resources, and coordinating the various stakeholders involved. For many years, these responsibilities were the domain of the ministries of planning and environment. However, in recent years, the MEFs have begun to play an increasingly prominent role in the climate agenda due to the relevance of public expenditure to mitigation and adaptation, the urgency of accessing financing to address the climate crisis, the fundamental impact that the carbon tax can have, the need to put in place incentive schemes to promote green technologies, and the imperative to better manage risks arising from the transition and extreme weather events, among others (The Coalition of Finance Ministers for Climate Action, 2023).

MEFs in the LAC region have made great strides in mainstreaming climate action into their fiscal policy and management, yet no studies provide up-to-date information on them. This paper addresses this gap by providing an overview of the state of mainstreaming of climate action into the different areas of fiscal responsibility of MEFs in the LAC as of 2023. An information survey was carried out from the second half of 2022 to the first half of 2023, drawing from data available on the official websites of governments and a number of international organizations with a presence in LAC. The topics covered in the study are: (i) the state of national commitments

1 Throughout this study, the term Ministry of Economy and Finance (MEF) is used to refer to the ministries in charge of fiscal policy. This includes Ministries of Finance, the Treasury, or Ministries of Economy, as the case may be.

2 The Paris Agreement is an international treaty adopted in 2015 during the 21st Session of the Conference of the Parties of the United Nations Framework Convention on Climate Change (COP21), which entered into force in 2016. Its objectives include: i) coordinating global action to combat climate change and keeping the global temperature rise for this century well below 2 degrees Celsius above pre-industrial levels, aiming to limit it to 1.5°C; ii) building countries' capacity for climate adaptation and enhancing resilience to the impacts of physical events; and iii) increasing financing to levels consistent with the needs of a transition toward resilient, low-carbon economies (UNFCCC, 2015).

3 NDCs are non-binding instruments under the Paris Agreement, whereby each country presents its commitments and strategies to contribute to the objectives of the Agreement. Each party is required to set an NDC and update it every five years to indicate a rolling climate goal. Countries can also undertake voluntary, long-term strategies that set out the pathways for their economies to transition toward carbon neutrality and resilience.

related to climate change, (ii) strategic planning and macro-fiscal policy, (iii) expenditure policy and management, (iv) tax and incentive policy, (v) debt management and financing, and (vi) climate governance.

The main findings of the study are that (i) the vast majority of MEFs in the LAC show some degree of progress in mainstreaming climate action into fiscal policy/management, although very few do so comprehensively; ii) from a comparative standpoint, the greatest progress has been made on strategic planning, macroeconomic and fiscal management, and revenue policy and management; (iii) the least progress is observed on financing policy and expenditure policy/management; and (iv) the top three LAC performers are Chile, Colombia, and Costa Rica, although even in these countries there are major climate fiscal policy reforms pending. The conclusion is that the information gathered can be used for monitoring and evaluating future actions of MEFs on climate issues. Hence, this study is a first step toward establishing a baseline in this regard.

The document is organized in four sections: the introduction, a methodology section, a section presenting the results organized both by fiscal policy area and from a regional comparative standpoint, and final considerations and reflections.

CHAPTER 2

METHODOLOGY

METHODOLOGY

2.1. Selection of Research Areas and Variables

The areas of fiscal policy and management included in this report fall within the scope of responsibility of MEFs. Specifically, the report considered variables in macro-fiscal policy and management, expenditure policy and management, revenue policy and management, and financing policy and debt management. In addition, it examined two complementary areas of research: the state of national commitments under the Paris Agreement and the state of climate governance in the MEFs.[4] Incorporating these two areas provides context to the relationship between fiscal policy and climate change policy, and enables a preliminary understanding of the institutional capacity required to address the challenges related to climate change within the sphere of competence of MEFs.

The variables were selected in two stages. First, the authors drew up a list of variables corresponding to the areas covered by this study and conducted a thorough review of the available data sources and their geographic coverage. Next, they narrowed down the list to the variables for which there was information published on government websites or those of organizations active in the region. This second step reduced the number of variables to 41. The final selection sought to preserve thematic balance such that no fiscal policy area had fewer than four variables. Table 1 lists the research areas and variables chosen. Annex 1 contains a list of the research questions used for information gathering.

4 For the purposes of this study, climate governance refers to institutional capacity to effectively address and manage challenges associated with climate change. Governance depends on the framework of competencies and responsibilities, coordination mechanisms, institutional structure and leadership, as well as institutional technical capacities.

Table 1. List of Research Areas and Variables

Contextual variables		Source
1. Existence of an updated NDC 2. Existence of an LTS 3. Definition of carbon neutrality goals committed under the United Nations framework.		UNFCCC UNFCCC UNFCCC
Area 1: Strategic planning and macro-fiscal management		
Policy sub-areas	Variables	
1.1 Strategic fiscal planning for climate change	4. Inclusion of a fiscal policy section in the NDC	Official & WRI
	5. Inclusion of a fiscal policy section in the LTS	Official & WRI
	6. MEF (co-)leadership in creating a climate change strategy/plan	Official
1.2 Fiscal risks related to climate change	7. Identification of fiscal risks associated with climate events	Official & ND-GAIN
	8. Quantification of fiscal risks associated with weather events	Official
	9. Integration of climate risks and/or transition risks into macro-fiscal projections	Official
	10. Flexibility in fiscal rules (escape clauses) to accommodate climate or transition risks	Official
	11. Existence of strategies and/or instruments for financial hedging against climate and/or transition risks	Official
Area 2: Public expenditure policy and management		
2.1 Public expenditure on climate change	12. Use of climate expenditure classifiers	Official
	13. Use of climate expenditure tags	Official
	14. Integration of tags or classifiers into budget management systems	Official
	15. Existence of accountability and transparency mechanisms for climate expenditure	Official
	16. Existence of methodologies for evaluating the effectiveness and efficiency of climate expenditure	Official
2.2 Public investment in decarbonization and resilience	17. Existence of annual/multi-year investment plans aligned with national climate change objectives	Official
	18. Existence of project preparation and evaluation guidelines that include climate and/or transition risk management	Official
	19. Existence of a taxonomy for investments with impact on climate change mitigation or adaptation	Official
	20. Existence of a social cost of carbon (SCC) for cost-benefit analysis	Official
	21. Existence of methodologies for ex post monitoring and evaluation of projects with climate change aspects	Official

(continues)

Table 1 *(continued)*

Contextual variables		Source
2.3 Sustainable public procurement	22. Existence of guidelines/standards for sustainable public procurement	Official
	23. Existence of manuals/guides for sustainable public procurement	Official
	24. Existence of technical datasheets for the standardization of certain sustainable products	Official
	25. Existence of reports on implementation of sustainable public procurement	Official
Area 3. Tax policy and fossil fuel subsidy policy		
3.1. Carbon tax and other climate change-related taxes	26. National mitigation strategy that includes a carbon tax or other related taxes	Official
	27. Existence of carbon taxes	World Bank
	28. Existence of assessments of the economic, distributional, and environmental impacts of carbon taxes	Official
	29. Existence of reports of carbon emission reduction as a result of carbon taxes	World Bank
3.2 Fossil fuel subsidy	30. Identification and quantification of fossil fuel subsidies	IMF
	31. Fossil fuel and other subsidy phase-down/phase-out plans	Official & IMF
3.3 Fiscal incentives for adaptation and mitigation	32. Inclusion of fiscal incentives for mitigation and/or adaptation in NDC or LTS	Official
	33. Evidence of progress toward introducing fiscal incentives for mitigation and adaptation	Official
Area 4: Financing policy and debt management		
4.1 Financing policy and debt management	34. Existence of a national climate finance strategy	CBI & official
	35. Issuance of green sovereign bonds	CBI & official
	36. Issuance of sustainable sovereign bonds or sustainability-linked sovereign bonds	CBI & official
	37. Existence of a debt-for-nature swap agreement after 2015	Official
Area 5: Institutional and governance issues		
5.1 Governance	38. Existence of institutional norms and responsibilities in the MEF regarding risk management and climate change	Official
	39. Participation of the MEF in the intersectoral management of climate change policies with clearly defined roles	Official
	40. Existence of an area within the MEF responsible for fiscal policy and the climate change agenda	Official
	41. Existence of an area within the MEF dedicated to fiscal risk evaluation, including risks of climate change-related disasters	Official

Source: Authors' elaboration.
Note: "Official" refers to the ministry of economy and finance.
CBI: Climate Bonds Initiative; UNFCCC: United Nations Framework Convention on Climate Change; IMF: International Monetary Fund; LTS: long-term strategy; ND-GAIN: Notre Dame Global Adaptation Initiative; NDC: nationally determined contributions; WRI: World Resources Institute.

2.2. Data Sources

The information used comes from the official websites of the 26 countries reviewed in the study and from publicly available information found on the websites of a number of international organizations or specialized agencies. As mentioned above, Table 1 includes the sources used for each variable, and Annexes 2 and 3 include the corresponding links.

In all cases, the official websites are those of the MEFs, while websites of international organizations or specialized agencies refer to those of the World Bank, the Climate Bonds Initiative (CBI), the United Nations Framework Convention on Climate Change (UNFCCC, 2015), the International Monetary Fund (IMF), the Notre Dame Global Adaptation Initiative (ND-GAIN), and the World Resources Institute (WRI). Annex 3 shows the thematic coverage of these data sources, which, in turn, justifies their inclusion in this study.

2.3. Timeframe and Data Validation

The information was collected between June 2022 and June 2023, and the review and validation process took place between July and December 2023. The information reported covers the period from the adoption of the Paris Agreement to mid-2023. The validation process consisted of verifying the scores assigned with specialists and experts on the issues in question. In several cases, information was also cross-checked with other studies of a more specific scope already published or in the process of being published.

2.4. Scale of Data Collection

The scale of the data collection was defined to prioritize the comparative nature of the study. A nominal measurement scale was selected because it is the only one that, at the time of this study (mid-2023), made it possible to collect comparable data on the 26 LAC countries. Regarding variables for which quantitative information existed but whose validation was beyond the scope of this study, the authors decided to keep using a qualitative scale.

Specifically, the information was classified as follows: "Yes" when there is evidence of the existence/presence of the variable in one of the sources mentioned in Table 1; "No" when no evidence of progress has been observed; and "In progress" when there is certain evidence of progress, but no final results published.

For a question to be answered Yes, there must be a supporting official document, such as a law or an approved ministerial plan. In cases where questions are research questions (i.e., "Are fossil fuel subsidies quantified?"), the answer is Yes if there is a document from an official source or from an international/specialized organization to support the statement. A question is answered "In progress" when there is a document published and in force that indicates that the country is making progress on the issue. As a result of this data collection strategy, some recent (or as yet unreported) progress in the countries included in the survey may not have been captured in this study.

CHAPTER 3

RESULTS PRESENTATION

RESULTS PRESENTATION

This section presents the results of the study starting with the contextual variables, followed by the variables corresponding to the substantive areas of fiscal policy and, finally, those related to climate governance. The presentation of results by fiscal policy area concludes with an intensity map that shows, in a comparative way, the progress observed in the 26 countries examined in the study. To create the intensity maps, the authors used an index that is the sum of the individual scores obtained by policy area and normalized on a scale of 0 to 1. The section concludes by presenting the regional average scores for each of the areas covered and the overall score for each country. All of the data are displayed on a normalized scale from 0 (minimum) to 1 (maximum).

3.1. Contextual Variables

The contextual variables indicate the existence of documents that capture the countries' climate commitments under the Paris Agreement. These commitments serve as reference in the process of mainstreaming climate action into fiscal policy, as they make it possible to determine the scale of the challenges, define national climate expectations, and identify opportunities for each country in its transition toward resilient and decarbonized economies.

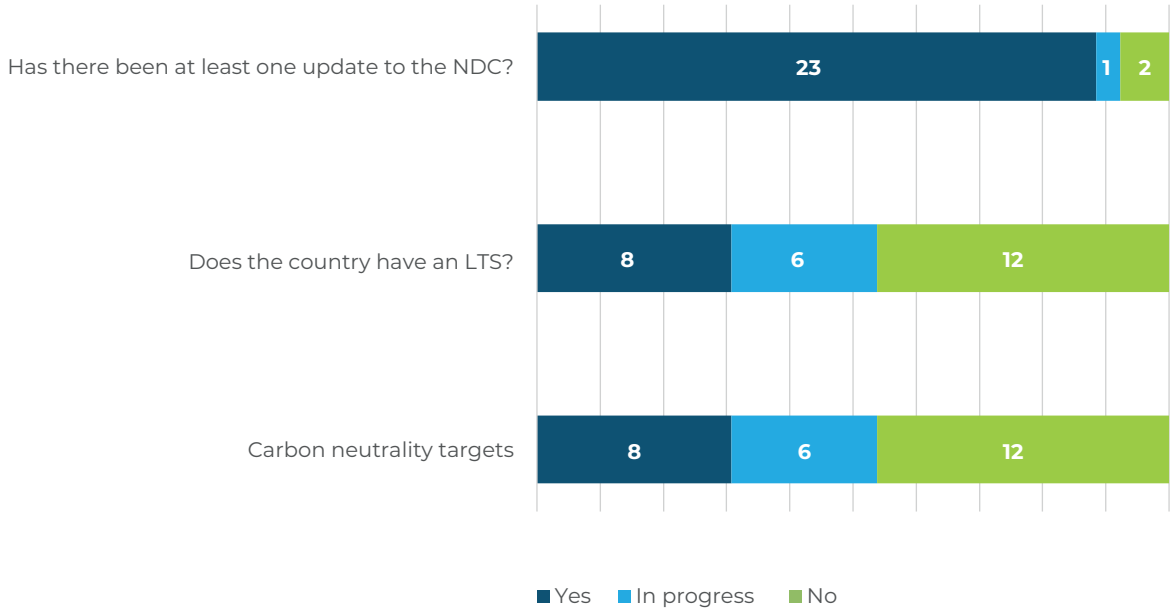
The results of the survey of the contextual variables indicate the following (see Figure 1):

- The vast majority of LAC countries (23 countries; 88.5 percent of the total) have updated NDCs, indicating compliance with the provisions of the UNFCCC, which requires NDCs to be updated every five years. At the time the date were collected (first half of 2023), only two countries were lagging behind in updating their NDCs (Trinidad and Tobago and Guyana), and a third was drafting a new NDC (Ecuador).

- The purpose of long-term strategies is to define a pathway toward decarbonization and resilience for the countries concerned, which refer to carbon neutrality by 2050 in most cases. The data collected reveal that eight LAC countries (30.8 percent) have long-term climate strategies, which may well reflect the non-binding nature of these instruments. The countries with long-term climate strategies published by 2023 are Argentina, Belize, Chile, Colombia, Costa Rica, Guatemala, Mexico, and Uruguay.

- It is important to formally define the targets for greenhouse gas (GHG) emission reduction and carbon neutrality, as they reflect the degree to which countries are committed to the Paris Agreement. In LAC, only 30.7 percent of the countries have formally mandated and published carbon neutrality targets. Notably, some countries have not committed to these targets because they are already carbon neutral or carbon negative, such as Guyana, Panama, and Suriname.

Figure 1. Contextual Variables Related to Climate Commitments under the Paris Agreement

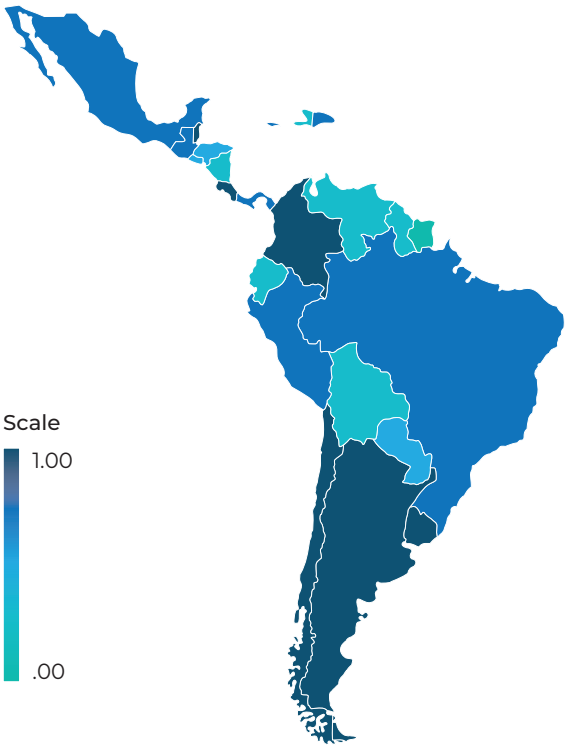


Source: Authors' elaboration.

LTS: long-term strategy; NDC: nationally determined contribution.

Map 1 presents an overview of the progress of LAC countries in terms of the contextual variables (see Table 1). The countries with top scores are Argentina, Belize, Chile, Colombia, Costa Rica, and Uruguay, all with the highest expected score. Brazil and Peru are interesting cases, since they have established carbon neutrality targets even without having LTSs. In particular, Brazil committed to carbon neutrality in its first NDC update. Although the preparation of an LTS is not mandatory under the Paris Agreement, it is a strategic instrument to plan for carbon neutrality that sets the direction for national development plans, multi-year investment plans, and sectoral plans to achieve national climate objectives.

Map 1. State of Climate Commitments under the Paris Agreement



Source: Authors' elaboration.

3.2. Strategic Fiscal Planning for Climate Change

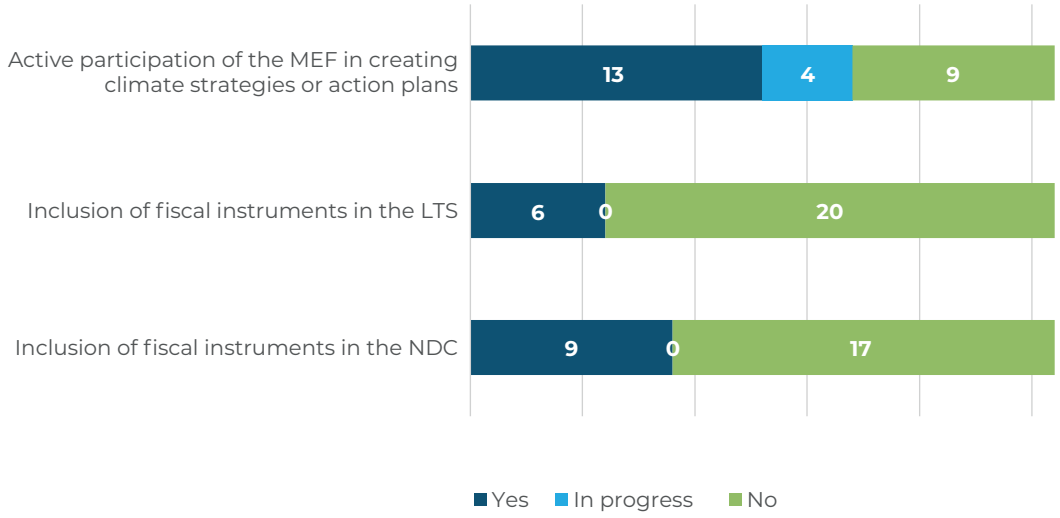
Strategic Fiscal Planning and Climate Change

The first issue of interest in mainstreaming climate change into MEFs' areas of responsibility is determining whether these ministries participate in (or spearhead) the drafting of documents that reflect national commitments under the Paris Agreement. In particular, greater involvement of MEFs is considered positive, as implementing climate strategies and commitments involves public resources and/or enacting fiscal policies that consider the risks and opportunities associated with climate change.

According to the data collected for this study, half of the MEFs are involved in creating strategic climate planning tools, which shows the growing importance of MEFs. In addition, six of the eight long-term climate strategies reviewed incorporate fiscal policy measures—such as the introduction of carbon taxes, reform to the fossil fuel subsidy scheme, and redirection of public investment toward national climate priorities, among others—indicating that fiscal policy is perceived as a valuable tool for implementing the aforementioned strategies.

Nine countries (34.6 percent of the total) have incorporated fiscal measures into their NDCs. This may be due to the fact that NDCs have more standardized content, with the main purpose of reporting national contributions to the objectives set out in the Paris Agreement, without necessarily specifying the tools envisaged to achieve them.

Figure 2. Fiscal Instruments and Climate Commitments



Source: Authors' elaboration.

LTS: long-term strategy; NDC: nationally determined contribution.

Managing Climate-related Fiscal Risks

The evidence indicates that LAC countries' readiness vis-à-vis extreme weather events is poor, which affects the scale of the impacts of climate-related disasters in terms of the number of people affected, infrastructure damage, decreased economic activity, and loss of tax revenues (Delgado, Eguino, and Lopes, 2021). On the other hand, the region is exposed to risks associated with the low-carbon transition given the dominance of the oil and gas sector in several LAC economies. For these reasons, it is necessary for LAC countries to have adequate physical and transition risk management, and information on these risks should be integrated into fiscal policy and management tools. The results of the data survey indicate the following (see Figure 3):

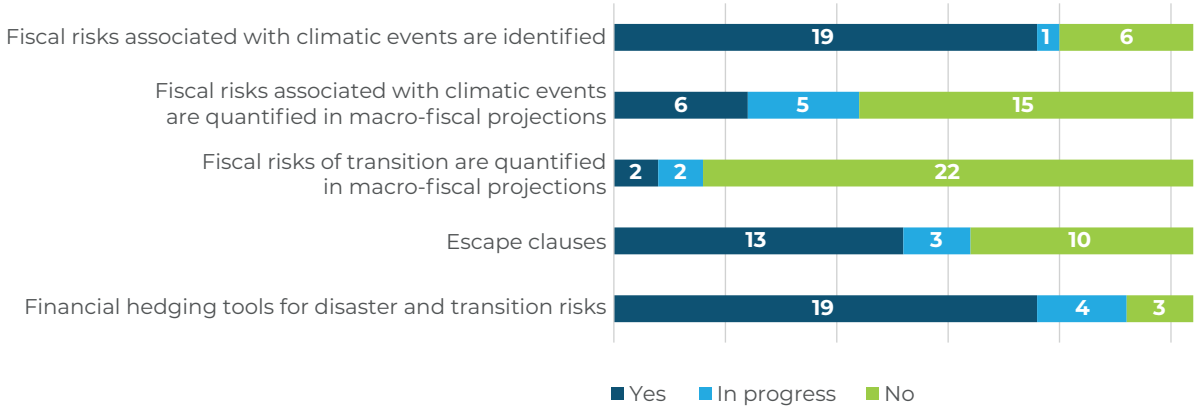
- Most LAC countries (19 countries, 73.1 percent) have conducted studies to identify climate risks associated with precipitation patterns (droughts and floods), sea level rise, and increased exposure to extreme weather events such as tropical cyclones and hurricanes.

- Only six countries (23.1 percent of the total) have quantified the fiscal impacts associated with the physical risks and included them in their fiscal projections. Only two countries (7.7 percent) have quantified and included transition risks in their fiscal sustainability analysis tools.

- Half of the countries have an escape clause in their fiscal rules to deal with extraordinary expenditures arising from climate events. Escape clauses are critical, as countries may be forced to override spending and borrowing limits established in fiscal rules to cope with emergencies or negative economic impacts of weather events.

Lastly, most of the countries (19 countries, 73.1 percent) have some type of financial hedging tool against climate risks, such as insurance against catastrophic risks, emergency funds, or contingent credit lines. These tools are essential, as they enable economies to recover faster from losses resulting from climate events, and they provide stability and financial support at critical times.

Figure 3. Tools for Managing Fiscal Risks Associated with Climate Change

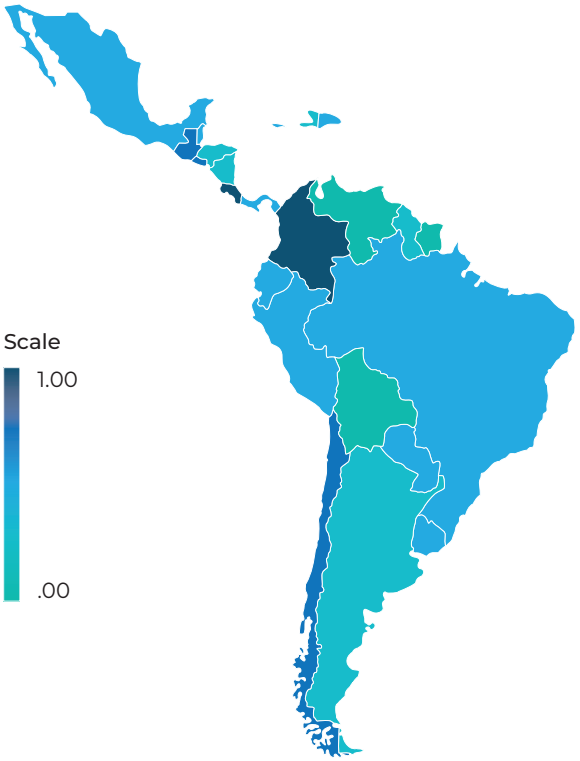


Source: Authors' elaboration.

Consolidating the Results of Strategic Fiscal Planning

Consolidating the eight variables in the area of strategic fiscal planning reveals that Colombia and Costa Rica have made the greatest progress in this regard (Map 2) and the highest scores. Chile, El Salvador, and Guatemala all obtained a score of 0.685, the second highest among the 26 countries analyzed (Map 2).

Map 2. Mainstreaming Climate Action into Strategic Fiscal Planning



Source: Authors' elaboration.

3.3. Public Expenditure Policy and Management

Public Finance Management

Public finance management plays an outsize role in the implementation of national climate strategies, as it encompasses all expenditure and revenue management systems, the most important of which is the budgeting system. Therefore, it is essential to mainstream climate action into the entire public expenditure cycle, which includes budget planning, resource allocation, expenditure execution, as well as monitoring and evaluation (Pimenta, 2022). The variables analyzed in this section show the following results (see Figure 4):

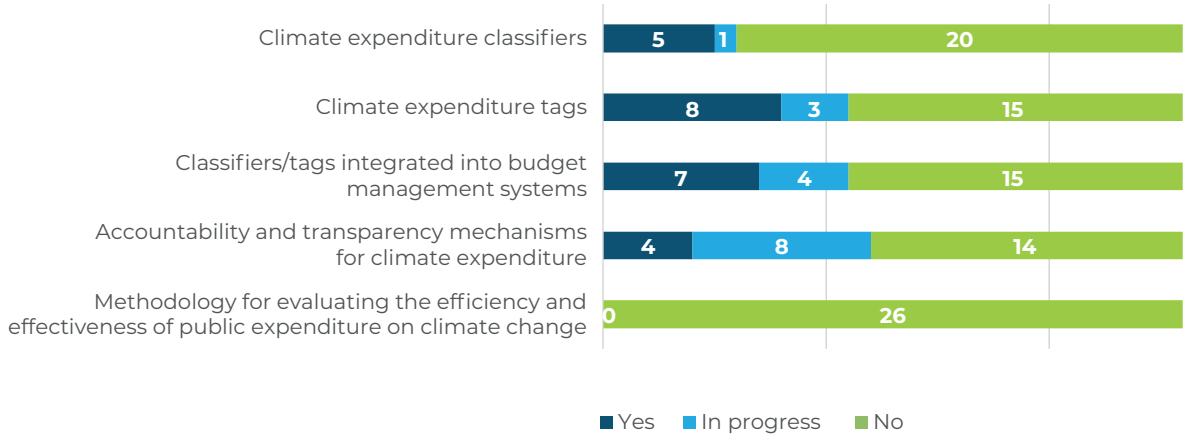
- Half of the LAC countries already have certain kinds of climate expenditure tagging or classifier schemes. This is noteworthy, since without such instruments it would not be possible to identify or quantify the public resources allocated to mitigation, adaptation, or management of climate-related disasters. At the time of this study, eight countries (30.8 percent) used tags and another five (19.2 percent) used classifiers.[5] It is important to differentiate between the two. Tagging is a tool for categorizing expenditures by type, which enables information to be generated consistent with the standards established in the IMF's Government Finance Statistics Manual (IMF, 2014) and in the United Nations System of National Accounts (UN, 2008). In contrast, classifiers help identify activities and expenditures associated with climate change, without necessarily integrating the information generated with other internationally accepted statistical systems.[6]

- Additionally, there are three other noteworthy aspects of climate expenditure management: (i) seven countries (26.9 percent) have already integrated their climate expenditure tags or classifiers into their financial information systems, which is a key step toward providing reliable and accurate information as often as needed; (ii) little progress has been made in introducing accountability and transparency mechanisms for climate expenditure, which are essential for improving efficiency in allocating expenditure and mobilizing funding; and (iii) no progress has yet been made in defining methodologies and/or protocols for climate expenditure assessment.

5 The two most commonly used methodologies in LAC countries are: (i) the expanded expenditure function classifier developed by the IDB (Pizarro et al., 2022) and (ii) the Climate Public Expenditure and Institutional Review methodology developed by the United Nations (UNDP, 2015).

6 When countries indicated that they use a combination of the two methodologies, the authors reviewed whether the information was integrated with other statistical information systems (national accounts, environmental statistics) to determine whether the country has a tagging or classifier scheme.

Figure 4. Management Tools Used for Identifying and Quantifying Public Expenditure on Climate Change



Source: Authors' elaboration.

Managing Public Investment in Decarbonization And Resilience

Public investment is a critical tool for enhancing resilience to climate change and for decarbonizing economies. To ensure its effectiveness, public investment management must incorporate a range of tools and best practices, such as introducing a social cost of carbon, defining taxonomies for green and sustainable investments, establishing climate prioritization systems for projects, and integrating climate risk management into project lifecycles, among others (Eguino, 2024). Figure 5 shows the progress observed in LAC countries in this regard as follows:

- Multi-year investment planning is a useful tool for steering capital spending toward prioritized sectors in national development strategies and/or plans. Hence, it is necessary to observe whether multi-year investment programs or plans explicitly state that they are aligned with national climate change strategies and policies. According to the survey conducted, alignment only occurred in four cases (15.4 percent of the total), while 13 other countries have undertaken some action to make progress in this area.

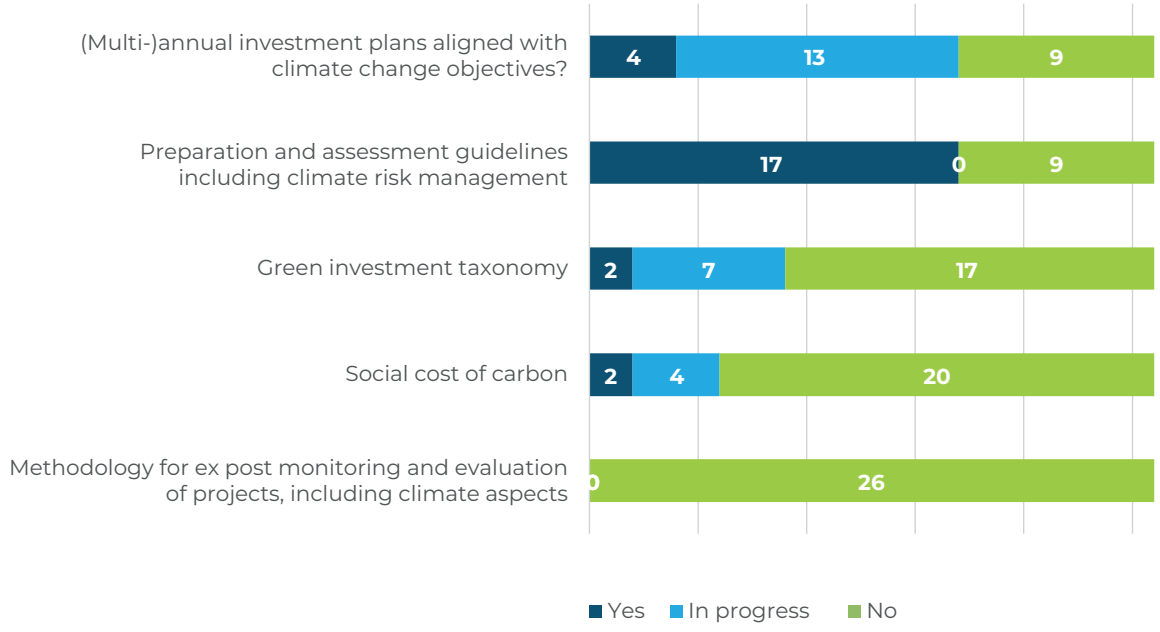
- Climate risk management in project preparation and evaluation already exists in most LAC countries (17 countries, 65.4 percent). In most cases, climate risk management only covers physical risk management and results in the inclusion of specific provisions in sector-specific project preparation and evaluation guides or pre-investment rules. These documents usually state that project documentation must identify climate risks, quantify their potential negative impacts on the project, and specify mitigation measures.

- Green or sustainable investment taxonomies are tools for classifying and identifying assets and investments with positive climate impact. Taxonomies are vital tools, as they assure investors that their resources will not end up in green-washing or carbon lock-in projects. As of mid-2023, only Colombia and Mexico had officially approved and published taxonomies. However, evidence shows that taxonomies are becoming mainstream and are under development in seven other LAC countries.

- The social cost of carbon helps internalize the environmental costs of GHGs in economic evaluations of investment projects. Only two LAC countries (Chile and Peru) apply this instrument in the cost-benefit analysis of public investment projects. However, at the time of this study, four other countries were in the process of preparing to conduct their own carbon pricing studies.

- No progress is observed in any LAC country on monitoring and evaluation of public investment in resilience and decarbonization—whether performed ex post or in the form of climate impact assessments. Specifically, there are still no records of climate impact assessments of public investment, nor are there studies to determine whether the climate costs or benefits attributed to a project actually materialize in the execution or operation phase.

Figure 5. Management Tools for Public Investment in Decarbonization and Resilience



Source: Authors' elaboration.

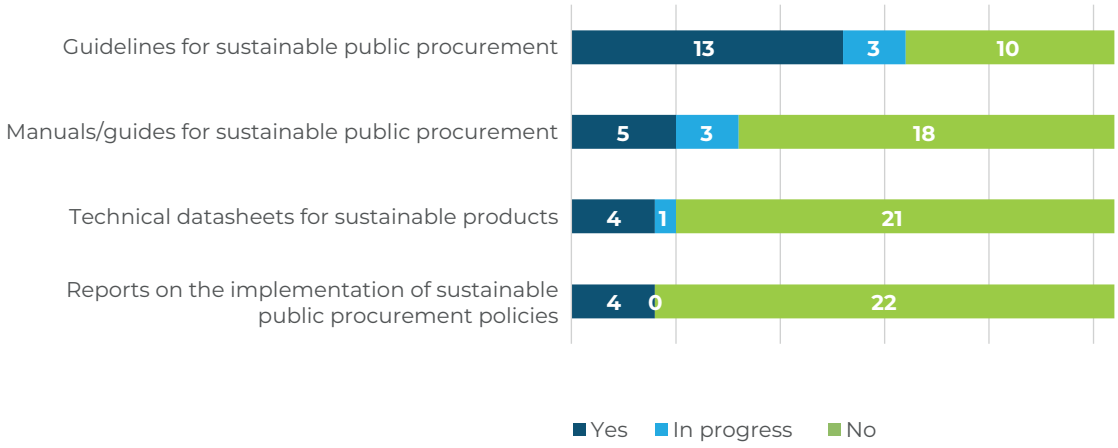
Sustainable Public Procurement

Sustainable public procurement is defined as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured (European Commission, 2008)." In LAC, public procurement represents on average 17.4 percent of total public spending (OECD, 2015a); therefore, it is imperative to establish and implement sustainable procurement and purchasing standards. The survey carried out for the purposes of this study led to the following findings (see Figure 6).

- Half of the countries surveyed already have public procurement rules or guidelines with specific provisions for green or sustainable products, services, or equipment. Another three countries (11.5 percent of the total) are in the process of developing their own regulatory tools, which shows the growing importance of the issue in the region.

- Less progress is observed in the drafting of manuals, technical datasheets for sustainable products, or reports on the implementation of standards or technical guidelines for green and/or sustainable procurement. Notably, (i) only five countries have sustainable procurement manuals or guidelines published on government websites and (ii) only four countries (15 percent of the total) have technical datasheets for the standardization of green/sustainable products or reports on the implementation of existing standards and guidelines.

Figure 6. Management Tools for Sustainable Public Procurement

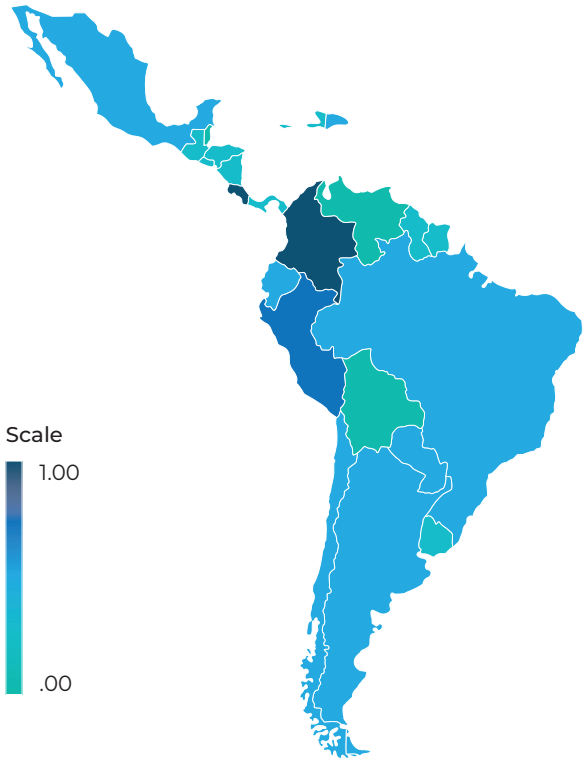


Source: Authors' elaboration.

Consolidating Results on Public Expenditure Policy and Management

In this study, public expenditure policy and management consists of three sub-areas and 15 variables. Map 3 consolidates the progress in the following sub-areas: (i) public spending on climate change, (ii) public investment in resilience and decarbonization, and (iii) sustainable public procurement. As indicated in the map, no country obtained the maximum score in fiscal policy. The country that has achieved the most progress is Colombia, with a score of 0.63, followed by Costa Rica and Peru, each with a score of 0.53. As illustrated in Section 5, expenditure policy and management is one of the fiscal policy areas where LAC countries lag the furthest behind in terms of mainstreaming climate action.

Map 3. State of Mainstreaming Climate Action into Policy and Expenditure Management



Source: Authors' elaboration.

3.4. Tax Policy, Subsidies, and Fiscal Incentives

Carbon Tax and Other Climate Change-related Taxes[7]

Carbon taxes, ranging from production taxes to energy consumption taxes, are levied on GHG emissions. In practice, carbon taxes contribute to reducing GHG emissions and help promote a more sustainable economy, which increases government revenue, spurs innovation, and fuels the transition toward more sustainable technologies (OECD, 2015b). Therefore, the study reviewed the following factors: (i) whether national climate change strategies, such as NDCs, LTSs, or national decarbonization plans envisage introducing carbon taxes; (ii) whether the country already has a carbon tax in place; (iii) whether there are studies on the economic, environmental, and distributional impacts of carbon taxes; and (iv) whether there are reports on the impacts of carbon taxes on GHG emission reduction. The main results are as follows (see Figure 7):

- Most LAC countries (17 countries, 65.4 percent) use carbon tax as one of the fiscal tools envisaged in their climate strategies. This percentage shows appreciation for the crucial role that carbon tax can play in reducing GHG emissions.

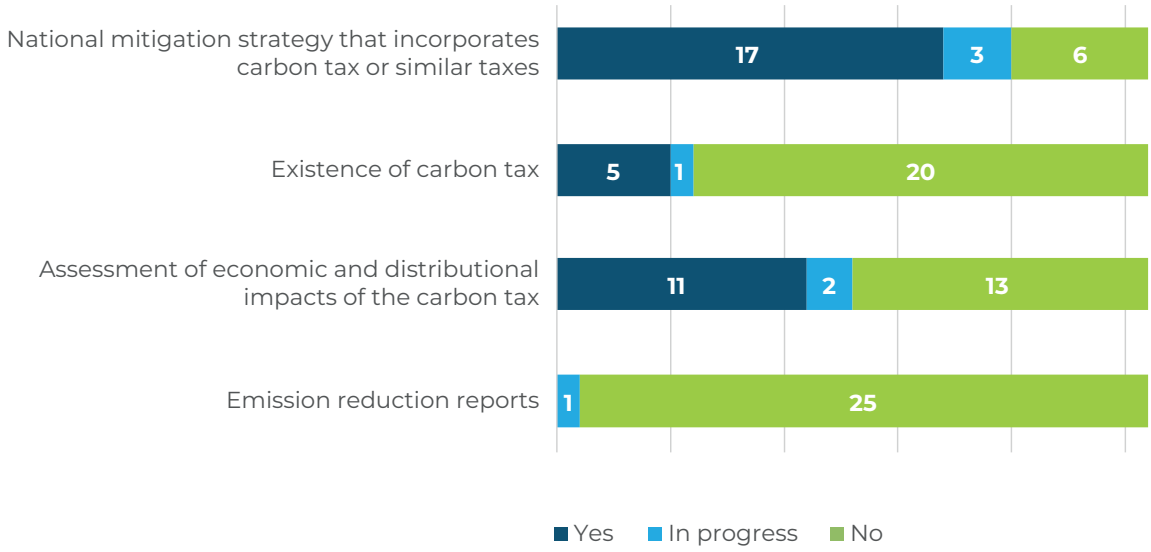
- Only five LAC countries (19.2 percent of the total) had a carbon tax in force by mid-2023: Argentina, Chile, Colombia, Mexico, and Uruguay. According to a World Bank report (2023), the scope of the carbon tax schemes is as follows: (i) in Argentina it covers liquid fuels, coal, and coke; (ii) in Chile it covers fixed source emitters; (iii) in Colombia it covers all liquid and gas fuels; (iv) in Mexico it covers fossil fuels except for natural gas; and (v) in Uruguay it covers emissions from gasoline combustion. The same report also indicates that Mexico is the country with the most broadly defined carbon tax (44 percent of all emissions).

- Eleven countries have conducted assessments on the fiscal impacts of carbon taxes. The assessments include calculating the optimal tax for each ton of CO_2 emitted, the potential impacts on economic and environmental efficiency, and the distributional implications. These prospective assessments make it possible to define enforcement strategies.

- Lastly, only one country (Argentina) showed evidence of actions undertaken to evaluate the impact of the carbon tax on GHG emission reduction.

7 This study does not cover the progress made in carbon credits, since this instrument is generally in the remit of ministries of the environment.

Figure 7. Carbon Tax and Other Climate Change-related Taxes



Source: Authors' elaboration.

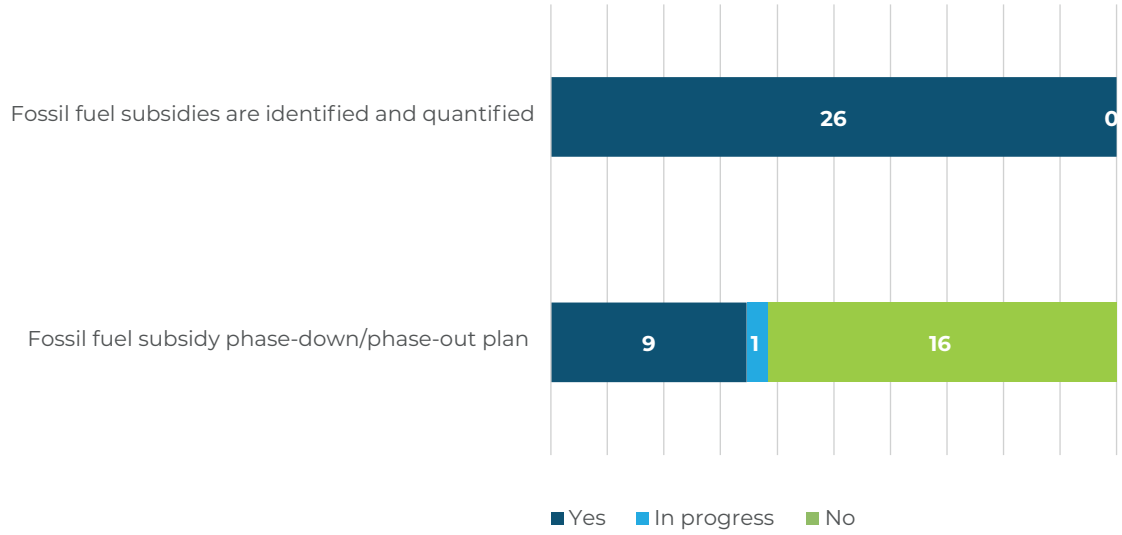
Fossil Fuel Subsidies

Identifying and quantifying fossil fuel subsidies is essential for determining whether countries are moving toward a more sustainable and less carbon-intensive economy. According to the IMF (2018), removing fossil fuel subsidies can generate significant fiscal savings, which can relieve pressure on public budgets and improve long-term fiscal sustainability. It is also a key measure to reduce GHG emissions and achieve climate objectives. With regard to subsidies, information gathered from official sources and international organizations indicates the following (see Figure 8):

- LAC countries have provided quantitative data on fossil fuel subsidies to the IMF based on official information. These data are valuable input for reform-minded MEFs.

- As of mid-2023, only eight LAC countries (30.8 percent of the total) had published plans or studies for fossil fuel subsidy phase-down or phase-out. Argentina, Belize, Costa Rica, Costa Rica, Ecuador, Guyana, Jamaica, Panama, Paraguay, and Guyana currently have fossil fuel subsidy phase-down/phase-out plans in place. At the time of the study, Colombia was also in the process of preparing such plan/study.

Figure 8. Progress on Fossil Fuel Subsidies



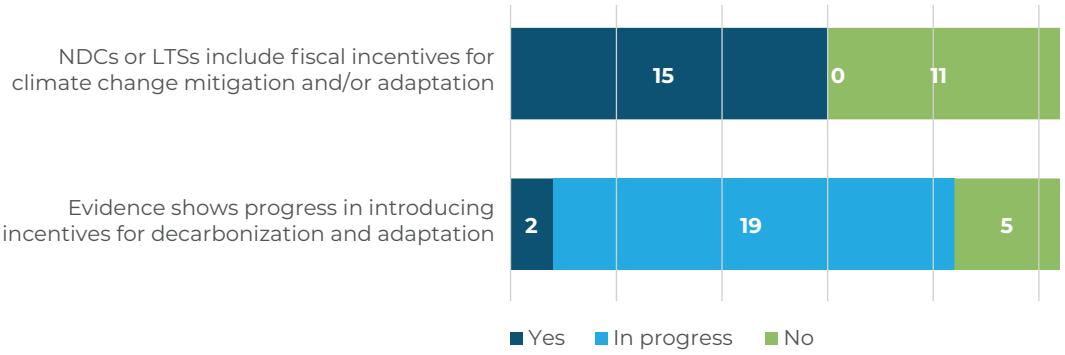
Source: Authors' elaboration.

Fiscal Incentives for Adaptation and Mitigation

According to the International Energy Agency (IEA), fiscal incentives for mitigation and adaptation have proven capable of spurring innovation and the development of sustainable technologies, which, in turn, have contributed to job creation and a greener economy (IEA, 2015). In addition, fiscal incentives encourage companies to adopt sustainable production practices, leading to reduced GHG emissions and increased resilience to climate disasters (UNIDO, 2018). Fiscal incentives can take the form of tax exemptions, tax credits, and grants for mitigation and adaptation-related projects. They should be implemented alongside ex ante assessments of their economic, environmental, and distributional impacts, which can help identify inefficiencies and improve resource allocation.

The study reviewed the following factors: (i) whether NDCs and/or LTSs include fiscal incentives for climate change mitigation and/or adaptation and (ii) whether there is evidence of progress made in implementing fiscal incentives for mitigation and adaptation (see Figure 9). The survey shows that 15 countries (57.7 percent of the total) include references to fiscal incentives in their NDCs and LTS and that only two have special climate tax schemes (Argentina and Guatemala). The survey also indicates that 19 countries already have some type of fiscal incentive for mitigation and adaptation, but that these developments are not part of a fiscal policy or a tax scheme with a climate objective.

Figure 9. Fiscal Incentives for Adaptation and/or Mitigation and Evidence of Progress



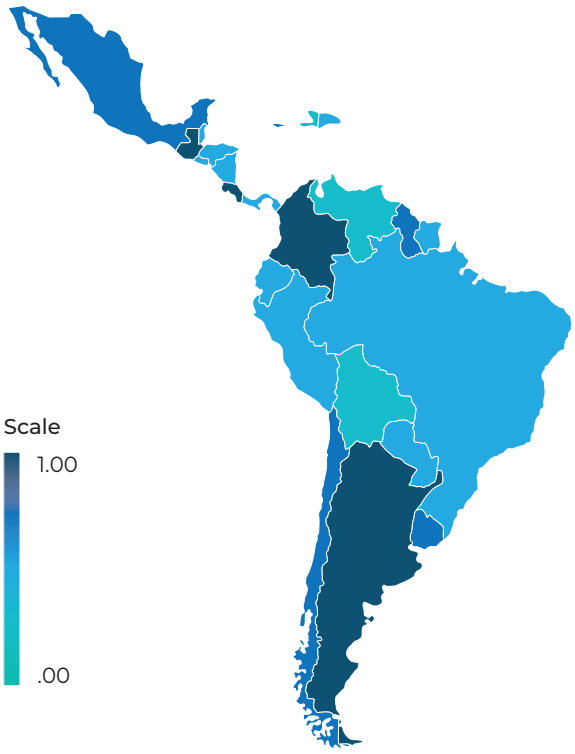
Source: Authors' elaboration.

LTS: long-term strategy; NDC: nationally determined contribution.

Consolidating the Results of Tax, Subsidy, and Fiscal Incentive Policies

Map 4 summarizes progress in the area of taxes, subsidies, and fiscal incentives for climate objectives. The results indicate that no LAC country has made progress in all of the variables analyzed. The countries with the highest scores (above 0.6) are Argentina, Belize, Chile, Colombia, Guatemala, and Uruguay.

Map 4. Mainstreaming Climate Action into Revenue and Tax Policy and Management as well as Fiscal Incentives



Source: Authors' elaboration.

3.5. Financing Policy and Debt Management

Access to new sources of financing is essential for implementing commitments under the Paris Agreement, enforcing national adaptation plans, and transitioning toward low-carbon economies. According to IDB estimates, the LAC region will need to spend between 2 and 8 percent of gross domestic product (GDP) annually by 2030 (Galindo, Hoffmann, and Vogt-Schilb, 2022), which can only be achieved with redirected public spending, enhanced efficiency, and additional financing. The progress made by LAC countries in some key aspects of access to financing is presented as follows (see Figure 10):[8]

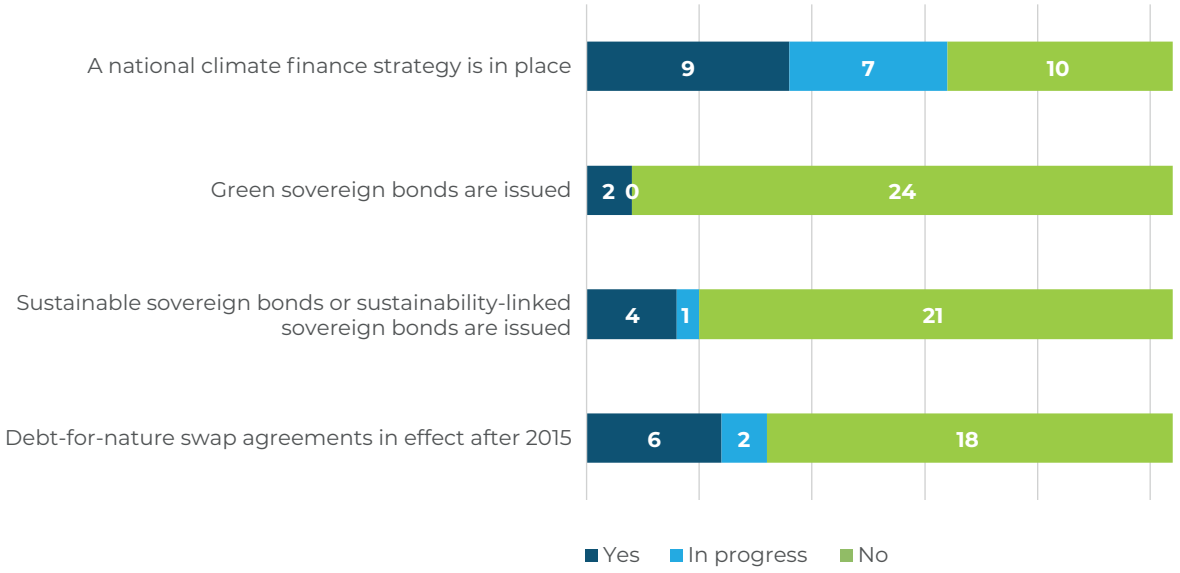
- Nine countries in the region have established national climate finance strategies, which are instruments that facilitate access to the resources needed to undertake the investments required for resilient and sustainable development. It is also worth noting that, at the time of this study, seven other countries had taken actions to develop their own climate finance strategies.

- As of mid-2023, only two LAC countries had issued sovereign green bonds: Chile and Colombia. Four LAC countries (Chile, Mexico, Peru, and Uruguay) had issued sustainable sovereign bonds, while a fifth (Brazil) was in the preparation process.

- Lastly, only 23.1 percent of LAC countries have signed a debt-for-nature swap agreement since the Paris Agreement entered into force in 2015: Barbados, Belize, Costa Rica, Ecuador, El Salvador, and Guatemala. Two other countries (Bahamas and Peru) are in the process of doing so.

8 The information used in this section comes from the Climate Bonds Interactive Data Platform.

Figure 10. Progress in Climate Finance

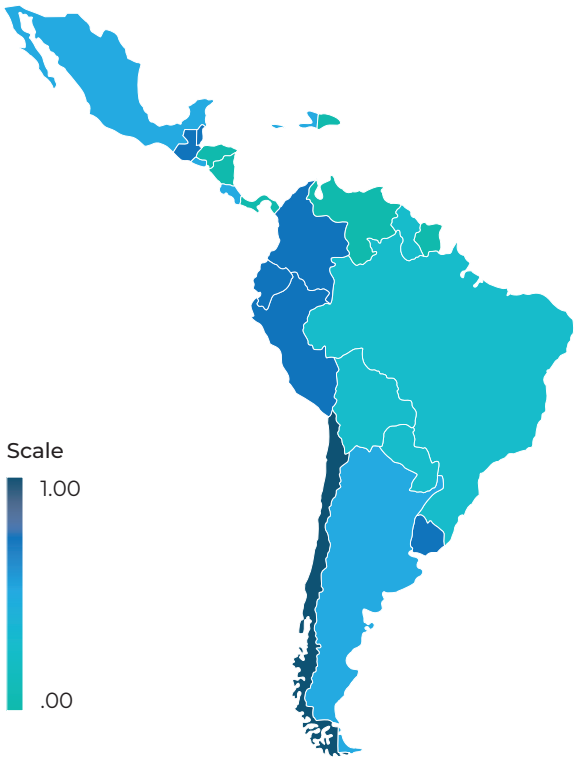


Source: Authors' elaboration.

Consolidating Results in Financing Policy and Debt Management

Although several countries have already developed or are in the process of developing their national climate finance strategies, few have made real progress in implementing new financial mechanisms capable of mobilizing resources for climate action, such as sovereign thematic bonds or debt-for-nature swaps. This is captured by low scores obtained by LAC countries in this regard. Chile obtained the highest score (0.75), while six other LAC countries show progress in at least half of the variables studied: Belize, Colombia, Ecuador, Guatemala, Peru, and Uruguay.

Mapa 5. Progress in Climate Finance across Latin American and Caribbean Countries



Source: Authors' elaboration.

3.6. Governance

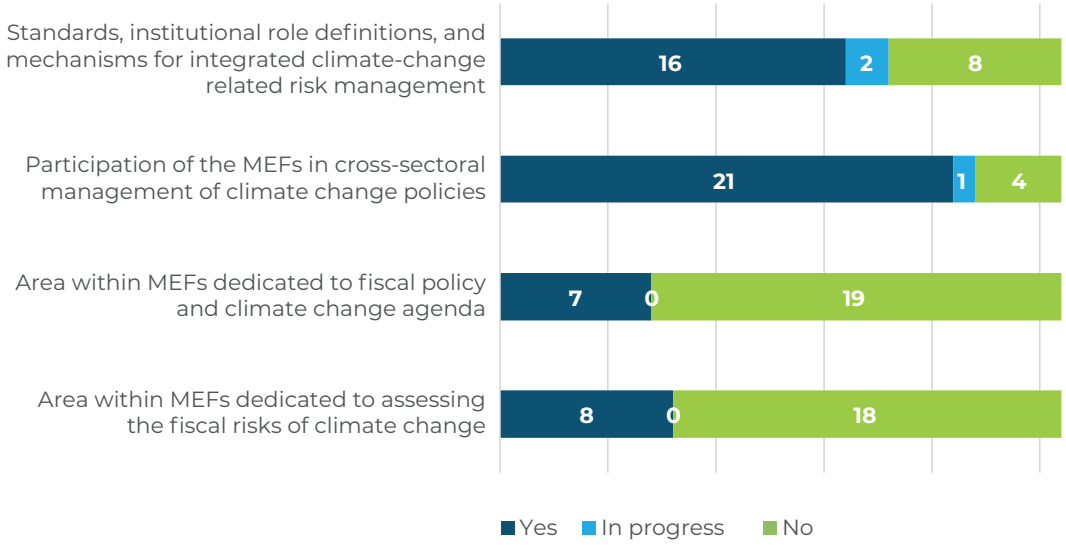
Governance is a fundamental aspect of achieving climate objectives and national climate change goals. Climate governance entails comprehensive management of the risks and opportunities associated with climate change. This, in turn, requires clearly defining the institutional roles and responsibilities, having in place the consultation and decision-making mechanisms, and ensuring accountability, intersectoral coordination of public policies, and technical capacities. In this study, the analysis of fiscal governance focuses on the responsibilities of MEFs and only reviews certain aspects of green fiscal policy. As in other parts of this study, the variables examined here are ones for which there was information available on official websites. The results of the survey indicate the following (see Figure 11):

- Sixteen countries (61.5 percent of the total) have a legal/regulatory instrument that defines the responsibilities of the MEFs in climate issues. These may be laws and/or complementary regulations that define, in varying degrees of detail, the ministerial competencies and/or coordination bodies for public climate policies in which MEFs participate.

- MEFs are involved in the design of climate change policies in the majority of countries (21 out of 26 countries or 80.8 percent), which shows the importance of fiscal issues in the design and implementation of climate policies.

- Lastly, MEFs in seven countries have an area dedicated to climate issues (26.9 percent) and eight (30.8 percent) have a department (or unit) formally in charge of the climate fiscal agenda. It is essential to have a department or unit dedicated to fiscal policy and climate change issues within the MEF, given the need for specialized expertise and improved coordination between the different areas of fiscal policy with climate impact, and between the MEF and other line ministries.

Figure 11. State of Climate Governance

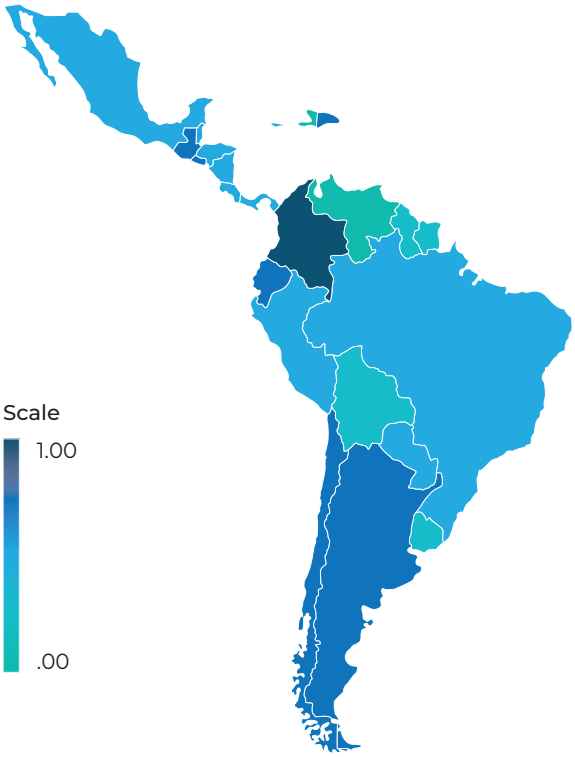


Source: Authors' elaboration.

Consolidating Results on Climate Governance

The consolidated data show that Colombia is the only country that has made progress across all of the governance variables. A second group of countries has made progress on three out of the four variables analyzed: Argentina, Bahamas, Chile, Dominican Republic, Ecuador, El Salvador, and Guatemala.

Map 6. Progress on Climate Governance across Latin American and Caribbean Countries



Source: Authors' elaboration.

3.7. Regional Overview

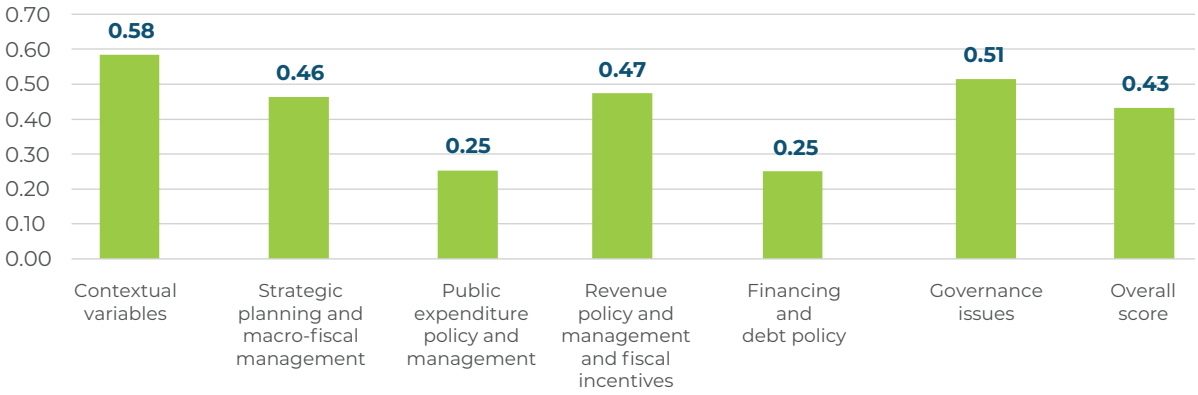
This section presents a regional overview of the study results. The regional average score for the areas analyzed was calculated as the simple average of the scores obtained by the 26 LAC countries. To calculate the overall scores for each country, the authors summed up the values of the 41 variables examined and normalized the results on a scale of 0 to 1 (1 being the maximum score).

In general, the MEFs in LAC have been taking major steps to mainstream climate action into their different areas of responsibility, although there is still ample room for more comprehensive improvement. The overall average score for the six areas was 0.43, with a high degree of heterogeneity in the extent to which climate action is mainstreamed into the different areas of fiscal policy.

According to the data collected, the greatest progress occurred in the creation of the policy instruments envisaged in the Paris Agreement (contextual variables) and in the establishment of frameworks for climate responsibilities and governance. This shows that the main progress is not in the substantive areas of fiscal policy, but rather in environmental policy and governance (see Figure 12).

Among the substantive areas of fiscal policy, the areas where the greatest progress has been made are climate taxes, subsidies, and fiscal incentives (0.47) and strategic planning and macroeconomic fiscal management (with a regional average score of 0.46). In contrast, the fiscal policy areas with the least progress are climate expenditure policy and management (with a regional average score of 0.25) and financing policy (with a regional average score of 0.25). These values show the need for a reform agenda with a broader scope that allows for action in all areas of fiscal policy with impact on climate change.

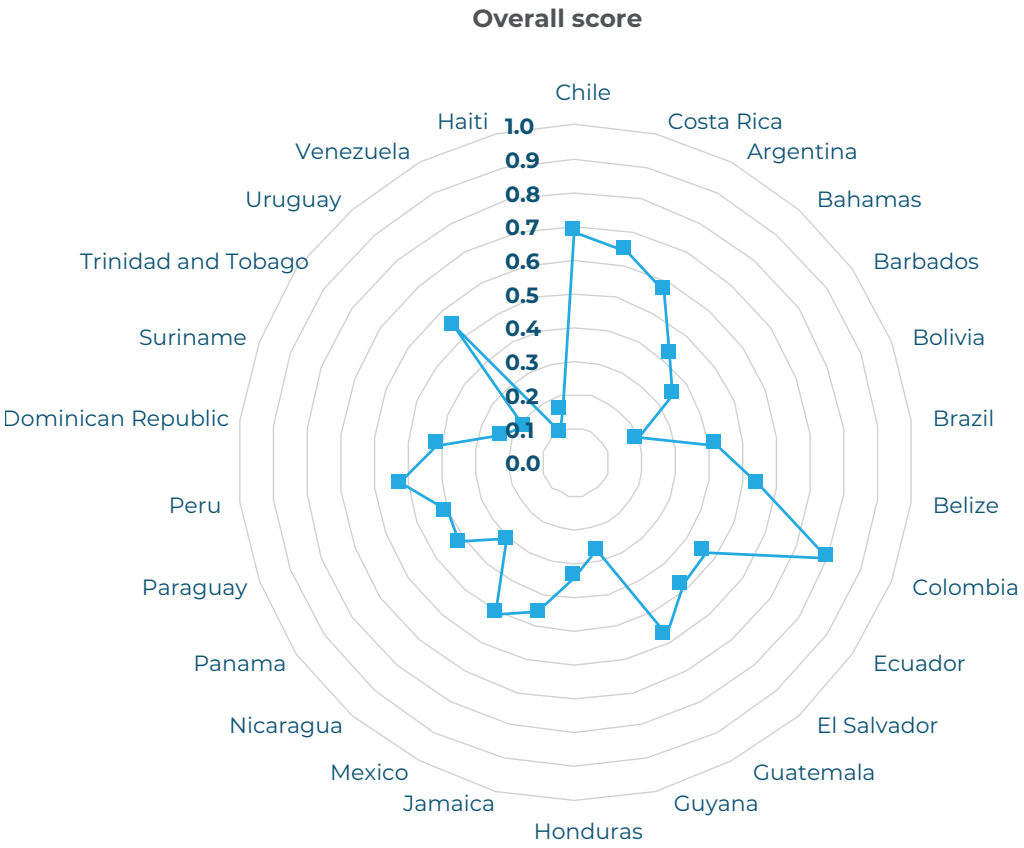
Figure 12. Regional Average Score for the Areas Analyzed



Source: Authors' elaboration.

Lastly, to compare the progress made by LAC countries, the authors calculated each country's overall score based on scores obtained in each area. Once again, the values were normalized on a scale of 0 to 1. The results indicate that the extent to which climate change is mainstreamed into fiscal policy and management varies greatly from country to country (see Figure 13). In fact, the three countries that have made the most progress in mainstreaming climate action into fiscal policies are Colombia, Chile, and Costa Rica (in that order), followed by Argentina, Guatemala, and Peru in the top quartile. The second group (third quartile) consists of Belize, Uruguay, Mexico, Ecuador, El Salvador, Jamaica, and Brazil (in that order)—countries that have made progress but only in certain areas of fiscal policy. The third group of countries with less progress consists of Panama, Paraguay, Dominican Republic, Bahamas, Honduras, Barbados, and Nicaragua. Lastly, the fourth group of countries that show little or no progress is comprised of Guyana, Bolivia, Trinidad and Tobago, Suriname, Haiti, and Venezuela.

Figure 13. Country Progress Comparison Based on Scores in the Different Areas



Source: Authors' elaboration.

CHAPTER 4

FINAL CONSIDERATIONS

FINAL CONSIDERATIONS

4.1. Methodology Considerations

This study is a first step toward establishing a baseline for assessing the progress of LAC countries in mainstreaming climate action into fiscal policy and management. As explained in the methodology section, due to a lack of data, this study focused on a limited set of variables and relied on a non-parametric data scale (nominal scale), with the methodological and analytical limits that this decision entails. Future analyses will surely make it possible to overcome these limitations, for which the following aspects will be emphasized:

- **Improve the methodology and conduct surveys on a regular basis.** It is essential to replicate and improve on studies such as this one to create a robust database that makes it possible to evaluate progress or the lack thereof in mainstreaming climate action into fiscal policy and management. Given the importance of the issue, the authors recommend continuing this type of research, seeking to finetune the methodology used, and repeating the information collection exercise at least once every two years.

- **Introduce quantitative variables over time.** One of the main drawbacks of this study is the lack of quantitative data that can be used throughout the region for comparative purposes. This limitation can be overcome by creating new reporting platforms (such as the Green Bond Transparency Platform)[9] and generating quantitative information over time based on internationally recognized methodologies and statistical standards. One way to do this is to use the methodology of climate expenditure tagging based on the functional classification of public spending with climate impact, which several LAC countries have begun to implement.

- **Disaggregate and expand variables.** It is also critical to identify a new set of variables that will provide a more accurate account of the progress made by LAC countries in mainstreaming climate action into fiscal policy. This is a complex process, since it is not enough to identify the relevant variables; the data sources must also be analyzed to ensure sufficient geographic coverage and data comparability. For example, at the beginning of this study, the authors identified around 150 variables. After analyzing data sources and coverage, the authors narrowed this number down to less than one third (41).

9 See https://www.greenbondtransparency.com/.

- **Complement the survey on the presence of good practices and institutions with variables that measure its effectiveness.** It is important to address this pending task based on studies that establish the criteria on which to measure country effectiveness in the adoption and/or implementation of good practices regarding green fiscal policy/management.

4.2. Evaluating the Mainstreaming of Climate Action into Fiscal Policy

Developing and implementing methodologies for evaluating climate fiscal policy are pending tasks both in LAC countries and at the global level. The authors believe that studies such as this one are a key step in the effort to produce the information required to conduct these evaluations. To make progress in this regard, the authors recommend focusing on the following aspects:

- Integrate fiscal information with GHG emission data, as it is otherwise difficult to assess the impact and effectiveness of fiscal policy on mitigation.

- Improve integration between fiscal information systems and the monitoring, reporting and verification systems contemplated in the Paris Agreement. This is essential, as it could include relevant fiscal information for tracking countries' progress on their climate commitments.

- Link fiscal policy and management variables with physical and transition risk variables. This is essential, since one of the functions of MEFs is to mitigate the negative impacts of climate events and of transition by integrating these risk variables into medium- and long-term fiscal sustainability tools.

- Identify variables relevant to the economic transformations required and link them to fiscal policy. For example, it is important to link public climate expenditure with the expected transformations in decarbonization and resilience. In this way, one can establish whether the allocation of expenditure lines up effectively with climate policies and whether adjustments are needed.

Lastly, it is important to highlight the need to strengthen statistical systems to include data on the relationship between fiscal policy variables and climate change, while at the same time building the institutional capacities required to evaluate the real impacts of fiscal policy on climate change.

ANNEXES

ANNEXES

Annex 1. Survey Questionnaire

Number	Variables
V1	Has there been at least one update to the NDC?
V2	Does the country have an LTS?
V3	Has the country committed to a carbon neutrality goal with the United Nations?
V4	In the NDCs, is there a fiscal policy planning section that incorporates fiscal instruments?
V5	In the LTS, is there a section on tax policy planning?
V6	Has the MEF spearheaded any climate change strategy or plan?
V7	Have the fiscal risks of climate change related events been identified?
V8	Are these risks quantified?
V9	Have decarbonization impacts been integrated into macro-fiscal projections?
V10	Is there flexibility (escape clauses) in the fiscal rules to accommodate transition and disaster risks?
V11	Are there strategies and instruments for financial hedging against disasters and climate change?
V12	Are there climate expenditure classifiers?
V13	Are there climate expenditure tags?
V14	Have climate change classifiers/tags been integrated into computerized budget management system?
V15	Are there accountability and transparency of public resources in climate change?
V16	Is there a methodology to assess the efficiency and effectiveness of public spending on climate change?
V17	Are there annual/multi-year investment plans aligned with national climate change objectives?
V18	Are there project preparation and evaluation guidelines that include climate and transition risk management?
V19	Is there a taxonomy for public investment projects with impact on climate change mitigation or adaptation?
V20	Has a social cost of carbon been set and applied in cost-benefit analyses?

(continues)

Annex 1 *(continued)*

Number	Variables
V21	Is there a methodology for ex post monitoring and evaluation of projects with climate change dimensions?
V22	Are there sustainable public procurement guidelines (eco-efficiency and/or circular economy)?
V23	Are there manuals/guides for sustainable public procurement?
V24	Are there technical datasheets and standardization for sustainable products?
V25	Are there reports on sustainable public procurement implementation and impact assessment?
V26	Does the national mitigation strategy include an assessment of the role of carbon-related taxes or other climate change-related taxes?
V27	Are there carbon taxes (effective carbon tax rates)?
V28	Are there assessments of the economic, distributional, (and management options) and environmental impacts of carbon taxes or an increase in effective carbon taxes?
V29	Are carbon reduction reports available?
V30	Are fossil fuel subsidies identified and quantified?
V31	Are there plans to phase-down/phase-out fossil fuel subsidies and other subsidies?
V32	Are fiscal incentives for mitigation and/or adaptation included in NDCs or LTSs?
V33	Is there evidence of progress in introducing fiscal incentives for mitigation and adaptation?
V34	Is there a national climate finance strategy?
V35	Does the country issue green sovereign bonds?
V36	Does the country issue sustainable sovereign bonds or sustainability-linked sovereign bonds?
V37	Has the country signed a debt-for-nature swap agreement after 2015?
V38	Has integrated climate change risk management been introduced? Are roles (including for the MEF) and decision-making mechanisms defined?
V39	Does the MEF participate in the intersectoral management of climate change policies (please specify role)?
V40	Is there an area within the MEF responsible for fiscal policy and climate change agenda?
V41	Is there an area within the MEF dedicated to fiscal risk assessment, including disasters associated with climate change?

Source: Authors' elaboration.

LTS: long term strategy; MEF: Ministry of Economy and Finance; NDC: nationally determined contribution.

Annex 2. Official Data Sources

Country	Ministry of Economy or Finance	NDC/ LTS/Other
Argentina	Ministerio de Economía	NDC LTS
Bahamas	Ministry of Finance	NDC
Barbados	Ministry of Finance, Economic Affairs, and Investment	NDC
Belize	Ministry of Finance	NDC
Bolivia	Ministerio de Economía y Finanzas Públicas	NDC Autoridad Plurinacional Madre Tierra
Brazil	Ministerio de Economía	NDC
Chile	Ministerio de Hacienda	NDC LTS
Colombia	Ministerio de Hacienda	NDC LTS
Costa Rica	Ministerio de Hacienda	NDC LTS
Ecuador	Ministerio de Economía y Finanzas	NDC
El Salvador	Ministerio de Hacienda	NDC
Guatemala	Ministerio de Finanzas Públicas	NDC LTS
Guyana	Ministry of Finance	NDC
Haiti	Ministre de l'Economie et des Finances	NDC
Honduras	Ministerio de Finanzas (SEFIN)	NDC
Jamaica	Ministry of Finance and Public Service	NDC
Mexico	Secretaría de Administración y Finanzas	NDC LTS
Nicaragua	Ministerio de Hacienda	NDC
Panama	Ministerio de Economía y Finanzas	NDC
Paraguay	Ministerio de Hacienda	NDC
Peru	Ministerio de Economía y Finanzas	NDC
Dominican Republic	Ministerio de Hacienda	NDC
Suriname	Ministry of Finance and Planning	NDC
Trinidad and Tobago	Ministry of Finance	NDC
Uruguay	Ministerio de Economía y Finanzas	NDC LTS
Venezuela	Ministerio del Poder Popular de Economía, Finanzas y Comercio exterior	NDC

Source: Authors' elaboration.

LTS: long-term climate strategy; NDC: nationally determined contributions.

Annex 3. Databases with Information on Fiscal Policy and Climate Action

Institution	Name	Description	Coverage and update frequency	URL
IMF	Climate Change Indicators Dashboard	The IMF Climate Change Indicators Dashboard provides information on climate change organized in five groups of indicators: i) Economic activity indicators: they provide information on emissions associated with economic activities, fuel emission intensity per unit of output, projected emissions out to 2030, scenarios for meeting NDC mitigation targets (conditional and unconditional), and the share of renewable energy in the overall energy mix. ii) Transboundary indicators: they include information on emissions embedded in international trade; import and export of environmental goods; and bilateral trade in environmental goods. iii) Financial and risk indicators: they include data on the carbon footprint of bank loans; sustainable and green bond issuance (sovereign and non-sovereign); physical risks from extreme weather events; and assets and income at risk from climate transition. iv) Government policy indicators, such as environmental taxes, public spending on environmental protection, and fossil fuel subsidies. v) Climate change indicators: they contain information on average changes in sea levels, atmospheric carbon concentration, and forest carbon stock.	Global Updated quarterly	https://climatedata.imf.org/
World Bank	Climate Change Knowledge Portal	The Climate Change Knowledge Portal provides: i) Historical data on average temperature, precipitation, and natural disasters. ii) Projected data from climate modeling for variables such as temperature, precipitation, number of rainy days, and number of days of extreme heat and cold. iii) Climate indicators on energy, water, agriculture, and health. The data on the portal is geo-referenced and can be filtered by country, region, or watershed.	Global Updated on an ongoing basis	Home | Climate Change Knowledge Portal (worldbank.org)

(continues)

Annex 3 *(continued)*

Institution	Name	Description	Coverage and update frequency	URL
WRI	Climate Watch	Climate Watch is an open data platform that provides information on NDCs and countries' climate progress under the Paris Agreement. This database provides information on global emissions by country, by economic sector, per capita, or per unit of GDP, as well as data on cities that have signed climate commitments, and information on jobs created in the renewable energy supply chain, among others.	Global Updated yearly	https://www.climatewatchdata.org/
University of Notre Dame	ND-GAIN	The ND-GAIN index is a composite index that covers two critical issues for adaptation: vulnerability and readiness. The vulnerability index measures exposure to climate risks in the following sectors: food, water, health, ecosystem services, population, and infrastructure. The readiness index measures the capacity of countries to mobilize resources for adaptation.	Global Updated yearly	https://gain.nd.edu/
UNFCCC	UNFCCC	Provides information on NDCs and LTSs submitted by countries under the Paris Agreement.	Global Updated on an ongoing basis	https://unfccc.int/
Climate Bonds Initiative	Climate Bonds Interactive Data Platform	Provides information on sustainable debt issuance by country or region, type of bonds (green, sustainable, social, or sustainability-linked); type of issuance (sovereign or non-sovereign); use of resources; and currency of bond issuance.	Global Updated yearly	https://www.climatebonds.net/market/data/#issuer-type-charts

Source: Authors' elaboration.

UNFCCC: United Nations Framework Convention on Climate Change; IMF: International Monetary Fund; LTS: long-term strategy; ND-GAIN: Notre Dame Global Adaptation Initiative; NDC: nationally determined contributions; WRI: World Resource Institute.

REFERENCES

REFERENCES

Delgado, R., H. Eguino, and A. Lopes. 2021. Fiscal Policy and Climate Change: Recent Experiences of Finance Ministries in Latin America and the Caribbean. Washington, D.C.: Inter-American Development Bank. Available at: https://publications.iadb.org/en/fiscal-policy-and-climate-change-recent-experiences-finance-ministries-latin-america-and-caribbean.

Eguino, H. 2024. Rumbo a una inversión pública resiliente y descarbonizada: prácticas de integración de la acción climática en la gestión de la inversión pública. Washington, D.C.: Inter-American Development Bank.

IMF (International Monetary Fund). 2014. Government Finance Statistics Manual 2014. Washington, D.C.: IMF.

------. 2018. Removing Fossil Fuel Subsidies. Washington, D.C.: IMF. AvailableIEA at: https://www.imf.org/en/Topics/imf-and-climate-change/Removing-Fossil-Fuel-Subsidies.

Galindo, L., B. Hoffmann, and A. Vogt-Schilb. 2022. How Much Will It Cost to Achieve the Climate Goals in Latin America and the Caribbean. Washington, D.C.: Inter-American Development Bank.

IEA (International Energy Agency). 2015. Energy Subsidies and Reform: Lessons and Implications. Paris: IEA.

OECD (Organisation for Economic Co-operation and Development). 2015a. Going Green: Best Practices for Sustainable Procurement. Paris: OECD Publishing.

------. 2015b. Taxing Energy Use 2015: A Focus on Emerging Economies. Paris: OECD Publishing.

Pimenta, C. 2022. Avances y oportunidades en la gestión financiera pública. Washington, D.C.: Inter-American Development Bank. Available at: https://publications.iadb.org/es/avances-y-oportunidades-en-la-gestion-financiera-publica-verde.

Pizarro R., R. Delgado, H. Eguino, and C. Pimenta. 2022. A Conceptual Framework for the Classification of Government Spending on Climate Change. Washington, D.C.: Inter-American Development Bank.

The Coalition of Finance Ministers for Climate Action. 2023. Strengthening the Role of Ministries of Finance in Driving Climate Action A Framework and Guide for Ministers and Ministries of Finance. Washington, D.C.: The Coalition of Finance Ministers for Climate Action.

UN (United Nations). 2008. System of National Accounts 2008. New York, NY: United Nations.

UNDP (United Nations Development Programme). 2015. Climate Public Expenditure and Institutional Review (CPEIR): A methodological guidebook. Nueva York: UNDP.

UNFCCC (United Nations Framework Convention on Climate Change). 2015. Paris Agreement. Paris: UNFCCC: Available at https://unfccc.int/process-and-meetings/the-paris-agreement.

UNIDO (United Nations Industrial Development Organization). 2018. Green Industry: A Pathway to Sustainable Development. Viena: UNIDO.

World Bank. 2023. Carbon Pricing Dashboard. Up-to-date overview of carbon pricing initiatives. Washington, D.C.: World Bank. Available at: https://carbonpricingdashboard.worldbank.org/.