

TOWARD ENHANCED CLIMATE AMBITION

Transparency and
Digital Governance
in Latin America and
the Caribbean

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TOWARD ENHANCED CLIMATE AMBITION

Transparency and Digital Governance in Latin America and the Caribbean

About this report

This report was prepared by the Inter-American Development Bank (IDB) and the United Nations Environment Programme (UNEP). The research, which aimed to compile key milestones in the transparency agenda, began in February 2021 and concluded its editing phase in 2023. The primary objective of the report is to underscore the strategic synergies between the climate change, digitalization, transparency, and data accessibility agendas. This will enable the operationalization of the standards proposed under the Paris Agreement's Enhanced Transparency Framework (ETF) and capitalize on

the achievements made in relation to digitalization and data accessibility. These agendas present a unique opportunity to promote sustainable development through an informed and empowered citizenry. The report is divided into four sections: i) the context to understand the role of transparency and digital governance in advancing climate ambition, ii) an analysis of the ETF in a sample of ten countries in Latin America and the Caribbean, iii) a study on the state of open climate data governance and its digitalization, based on a sample of six countries in the region, and iv) the overall conclusions.



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LIST OF ABBREVIATIONS

ASIS	Alliance of Small Island States
BTR	Biennial Transparency Report
BUR	Biennial Update Reports
COP	Conference of the Parties
ETF	Enhanced Transparency Framework
GHG	Greenhouse gases
GWP	Global Warming Potentials
IDB	Inter-American Development Bank
IPCC	Intergovernmental Panel on Climate Change
LAC	Latin America and the Caribbean
LTS	Long Term Climate Strategies
MPG	Modalities, procedures and guidelines
MRV	Monitoring, reporting and verification
M&E	Monitoring and evaluation
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NGHGI	National Greenhouse Gas Inventory
REDD	Reduction of greenhouse gas emissions due to deforestation and forest degradation
REDD+	Reduction of greenhouse gas emissions due to deforestation and forest degradation, conservation and increase of carbon stocks and sustainable forest management
SDGs	Sustainable Development Goals
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organization

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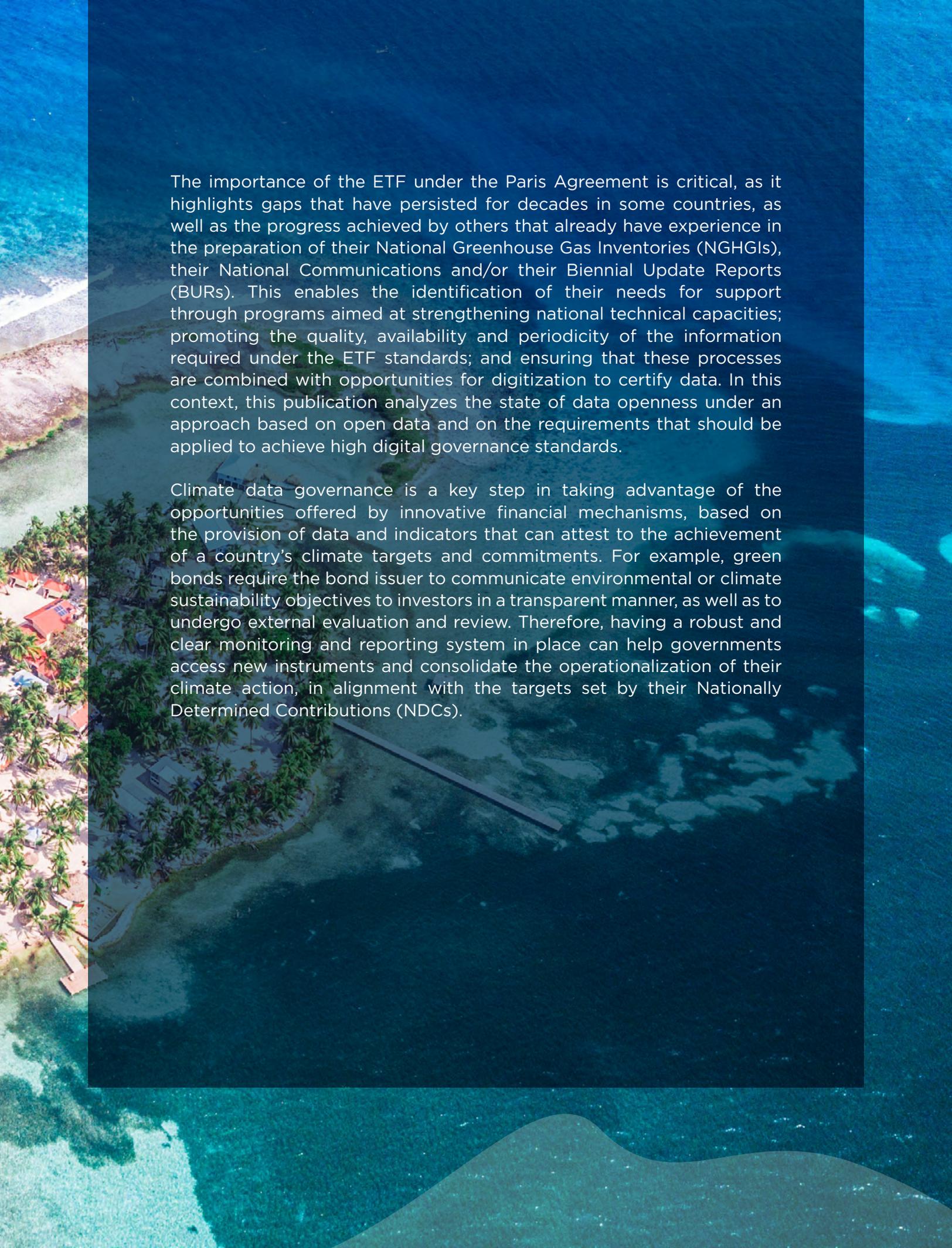
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INTRODUCTION

As the countries of Latin America and the Caribbean (LAC) work to achieve their climate action goals and their mitigation and adaptation commitments made under the Paris Agreement, it is crucial to understand the role of monitoring, reporting and verification (MRV) to continue incentivizing global progress on the path toward the green transition. Improving the quality of climate data and the transparency in the way such data is captured and disseminated allows countries to strengthen climate governance, carry out relevant interventions in the agreements and plans that have been drawn up, and even increase the possibility of accessing innovative financial results-based instruments.

The Paris Agreement provides for an Enhanced Transparency Framework (ETF) that consists of a set of obligations, rules and procedures that establish how countries must report their progress in the implementation of their commitments, in order to increase confidence and transparency regarding their contribution to the global effort. This publication, produced jointly by the Inter-American Development Bank (IDB) and the United Nations Environment Program (UNEP), presents an analysis of the state of the art in climate data governance and the implementation of the ETF in LAC.

The publication consists of four parts. The first part describes the context of the role of transparency and digital governance in the development of climate ambition. The second part analyzes the current state of the ETF on a sample of ten countries in the region. Part three studies the situation of open climate data governance and its digitization based on a sample of six countries in Latin America and the Caribbean. Finally, the fourth part of the report presents its general conclusions and recommendations.



The importance of the ETF under the Paris Agreement is critical, as it highlights gaps that have persisted for decades in some countries, as well as the progress achieved by others that already have experience in the preparation of their National Greenhouse Gas Inventories (NGHGs), their National Communications and/or their Biennial Update Reports (BURs). This enables the identification of their needs for support through programs aimed at strengthening national technical capacities; promoting the quality, availability and periodicity of the information required under the ETF standards; and ensuring that these processes are combined with opportunities for digitization to certify data. In this context, this publication analyzes the state of data openness under an approach based on open data and on the requirements that should be applied to achieve high digital governance standards.

Climate data governance is a key step in taking advantage of the opportunities offered by innovative financial mechanisms, based on the provision of data and indicators that can attest to the achievement of a country's climate targets and commitments. For example, green bonds require the bond issuer to communicate environmental or climate sustainability objectives to investors in a transparent manner, as well as to undergo external evaluation and review. Therefore, having a robust and clear monitoring and reporting system in place can help governments access new instruments and consolidate the operationalization of their climate action, in alignment with the targets set by their Nationally Determined Contributions (NDCs).

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CONTEXT





1.1. Cyclical Structure of the Paris Agreement



1.2. Enhanced Transparency Framework



1.3 Transparency, Access to Public Information and Open Data



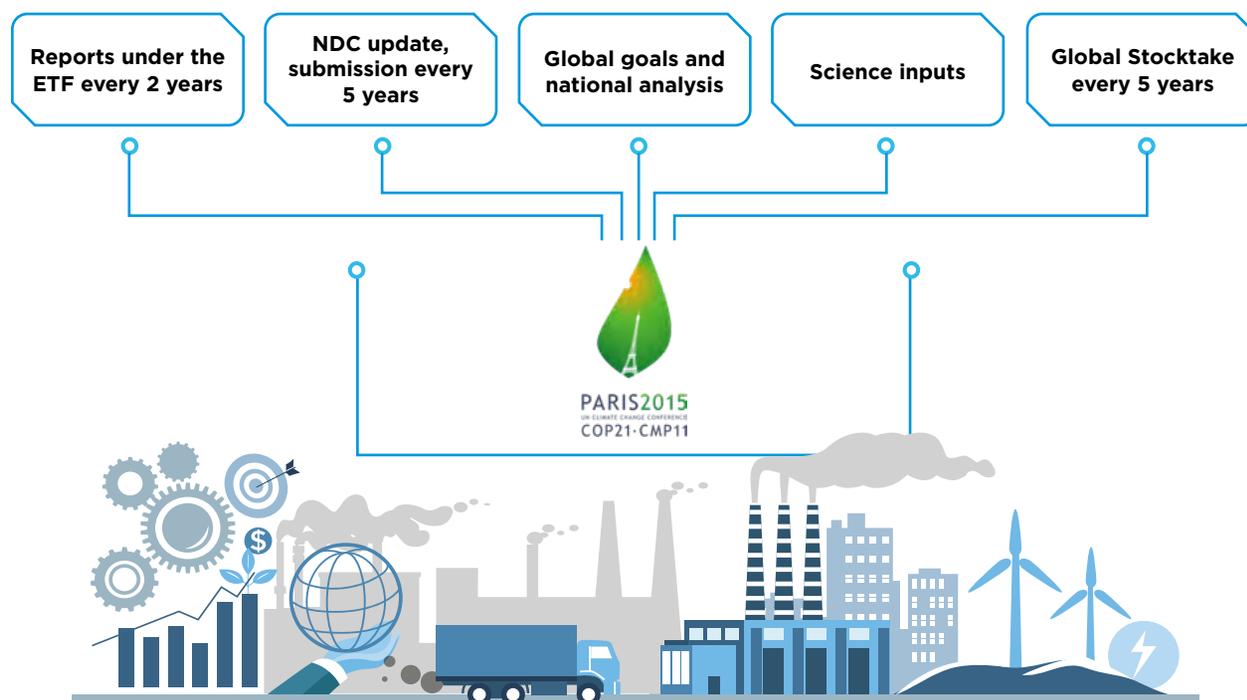
1.1. Cyclical Structure of the Paris Agreement

Article 2 of the Paris Agreement sets out the long-term global goals needed to fight climate change. These goals include limiting global warming to well below 2°C (preferably 1.5°C) compared to pre-industrial levels, increasing adaptive capacity to the adverse effects of climate change, and promoting resilience. Article 2 also refers to the need to accelerate and intensify actions and investments in the

three main dimensions of climate action: mitigation, adaptation and climate finance.

In order to build a path conducive to the fulfillment of the global goals, the Paris Agreement proposes a review cycle that allows countries to progressively increase their ambition to fight climate change and adapt to its effects (see Figure 1. Cyclical Structure of the Paris Agreement).

Figure 1. Cyclical Structure of the Paris Agreement



Source: UNEP 2023

As part of this cyclical structure and based on the best available information, the adoption of a bottom-up approach implies that each country formulates its own climate targets and communicates them through an NDC. The targets are based on its emissions inventories, its sectoral projections of greenhouse gases (GHG), studies of its vulnerability to climate change, the analysis of scenarios, and the consideration of its own circumstances. The NDC presents the GHG emissions reduction measures to which the country commits to to achieve the global objectives of the Paris Agreement, as well as the actions that it will implement to build resilience and adapt to the effects of climate change.

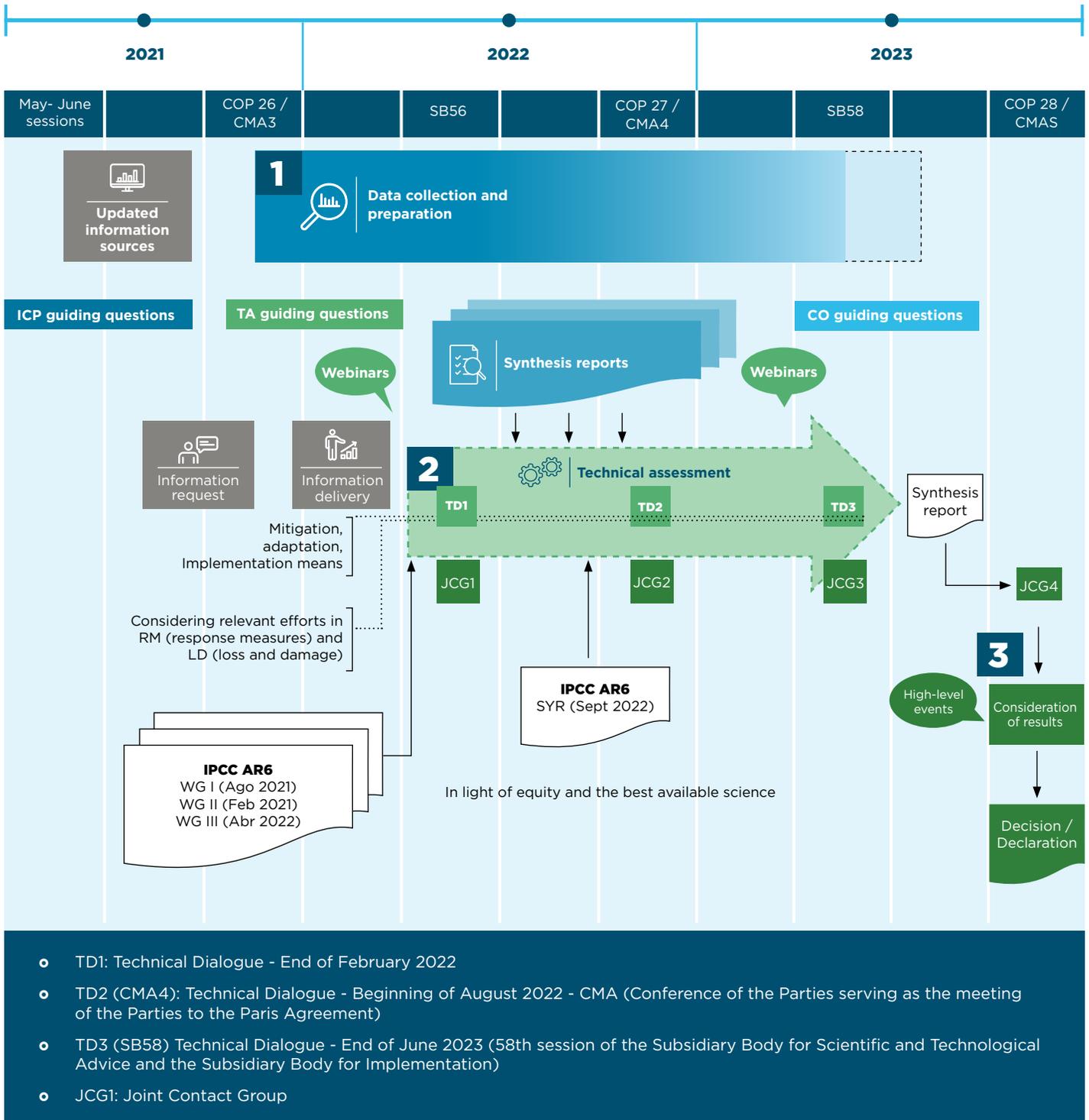
Within the framework of the NDC, there are various planning exercises that are carried out, including the development of Long-Term Climate Strategies (LTS) and National Adaptation Plans (NAP), which should seek to align national priorities and investments to climate commitments.

The Paris Agreement has a set of obligations, rules and procedures, known as the Enhanced Transparency Framework, which set out how countries must report their progress in the implementation of their commitments in order to increase confidence and transparency regarding the contribution that each country makes to the global effort. Pursuant to the provisions of the ETF, all countries must submit a Biennial Transparency Report (BTR) every two years. The BTR includes specific information on the scope of NDC targets and the progress on their implementation, including, but not limited to, a NGHGI. The

BTR is subject to review processes by the United Nations Framework Convention on Climate Change (UNFCCC) and is essential to understanding collective efforts toward meeting global goals. All countries must submit their first BTRs to the UNFCCC before December 2024.

To complete its cyclical structure, the Paris Agreement includes a five-year review (starting in 2023) which entails a global assessment of the state of implementation of the Paris Agreement. This review, also known as the “Global Stocktake,” is intended to assess the world’s collective progress toward compliance with the agreement. The choice of information collected, compiled and synthesized is established under Article 14 of the Paris Agreement and decision 19/CMA.1. It includes reports and communications by the Parties, reports by the Intergovernmental Panel on Climate Change (IPCC), and synthesis reports by the Secretariat, among others. This analysis takes into consideration all the elements of the Agreement: GHG emissions reduction commitments, the status of adaptation actions and the situation of the means of implementation, particularly finance. Figure 2. Global Stocktake Timeline, presents the timeline for the first global assessment, expected to deliver its results at COP 28.

Figure 2. Global Stocktake Timeline



- TD1: Technical Dialogue - End of February 2022
- TD2 (CMA4): Technical Dialogue - Beginning of August 2022 - CMA (Conference of the Parties serving as the meeting of the Parties to the Paris Agreement)
- TD3 (SB58) Technical Dialogue - End of June 2023 (58th session of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation)
- JCG1: Joint Contact Group

Source: adapted from UNFCCC, 2023

Given that the Paris Agreement is based on an increase in global and individual ambition over time¹, NDCs should be updated every five years and reflect enhanced ambition compared to the previous NDC. In this process, the BTRs and the results of the Global Stocktake can serve as the basis to develop subsequent NDCs, which will allow countries to update and improve the implementation of their measures. Although the Paris Agreement establishes NDCs should be updated every five years, some countries, given their progress, may decide to increase ambition extemporaneously (before the five years of the cycle).

It should be noted that the latest NDC report², published by the UNFCCC in October 2022, showed a flattening of the global GHG emissions curve, based on the information provided by 193 Parties. This, however, remains insufficient to limit the global temperature rise to 1.5 °C by the end of the century. It is estimated that, with current commitments, emissions will increase by 10.6 percent by 2030, compared to 2010 levels. However, this represents an improvement over the 2021 assessment, according to which countries were going to increase emissions by 13.7 percent by 2030, compared to 2010 levels.



1.2. Enhanced Transparency Framework

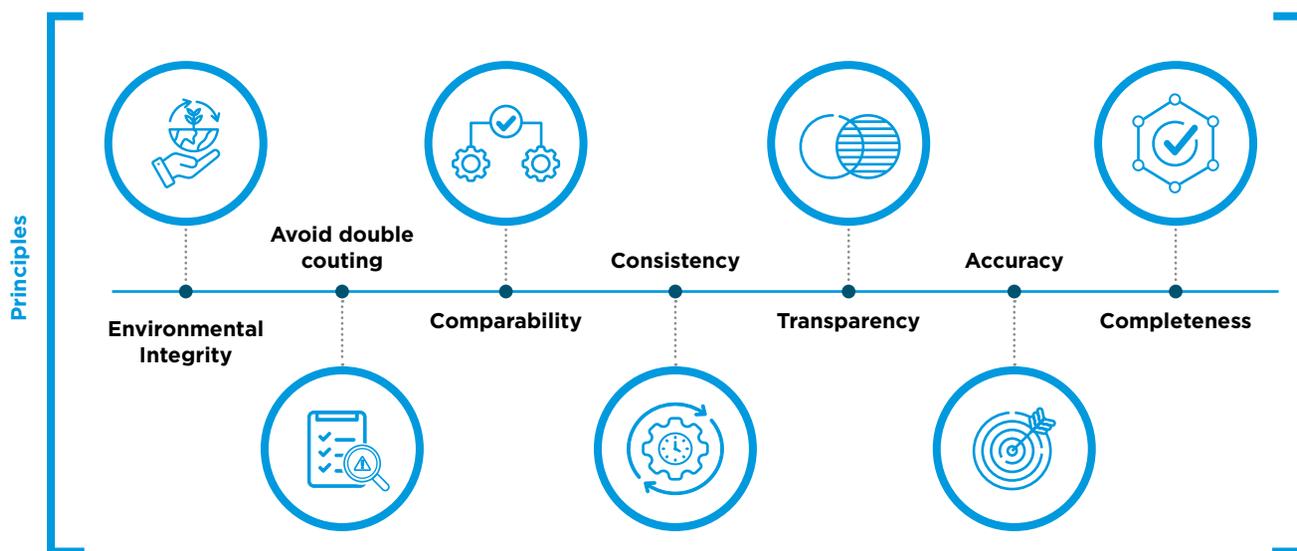
ETF Principles

Transparency is the cornerstone of Paris Agreement implementation. Transparency makes it possible to accurately assess progress in terms of climate action and each Party's contribution to global achievements. Data collection, systems and tools involved in ETF implementation provide the international community with key information to improve the

scientific understanding of climate change. Additionally, the ETF seeks to offer a clear vision of the measures adopted to address climate change, as well as the support provided, mobilized, received and required by each country in terms of finance, technology development and transfer, and capacity building.

¹ https://unfccc.int/sites/default/files/resource/CMA2018_3a02S.pdf

² Nationally determined contributions under the Paris Agreement. Synthesis report by the UNFCCC Secretariat <https://unfccc.int/documents/619180>

Figure 3. MTR Principles

The ETF (COP24 decision 18/CMA.1 of Katowice³) promotes the principles of **transparency, accuracy, completeness, consistency, comparability, avoidance of double counting** and **maintaining environmental integrity**⁴. Likewise, and considering that under the Paris Agreement the aim was to eliminate the differentiation between Annex I and non-Annex I countries or between developed and developing countries⁵, the ETF also promotes **flexibility** and **continuous improvement**, offering countries the possibility of navigating the climate action path while keeping their particular contexts in mind.

These principles are embodied in the mechanisms established by each country to make their transparency systems operational and guide the national engagement processes with citizens, the private sector and academia, among others. In the case of Latin America and the Caribbean, for example, an analysis of the information presented by 11 countries of the region (in their BUR and NDC documents) shows alignment with these principles. The most mentioned principles are **continuous improvement, transparency** and **ambition** (see Table 1. Principles Most Mentioned in a Sample of LAC Countries).

³ https://unfccc.int/sites/default/files/resource/CMA2018_3a02S.pdf

⁴ <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-paris-agreement/guiding-principles-for-mpgs>

⁵ The UNFCCC divided member countries into three groups: Annex I, Annex 2 and Non-Annex I. The first group consisted of the developed countries and those whose economies were in a transition phase, for example, the countries of Eastern Europe. These were the countries that had to carry out mitigation actions. On the other hand, Annex II was made up of developed countries that, in addition to having mitigation obligations, also had to provide financial and technological assistance so that developing countries could comply with their commitments to the UNFCCC. Finally, Non-Annex I were developing countries that did not have quantitative mitigation obligations, but rather had to report periodically on the status of their emissions and implement national policies aimed at mitigating their emissions and adapting to climate change. The Kyoto Protocol maintained this classification.

1. CONTEXT

Additionally, the analyzed countries make at least one mention of inclusion, equity and respect for human rights as guides for climate action. This is a reflection of LAC countries' specific contexts, in which transition toward resilience and low-carbon development should integrate

considerations to ensure compliance with these additional principles. This dimension is also key for the inclusion, consideration, and active participation of civil society in the development, approval, and monitoring of NDCs.

Table 1. Principles Most Mentioned in a Sample of LAC Countries

Country	Principles most mentioned in LAC countries' NDCs and BURs				
Barbados					
Bolivia					
Brazil					
Chile					
Colombia					
Costa Rica					
Dominican Republic					
Honduras					
Panama					
Trinidad and Tobago					
Uruguay					

	transparency (5)
	accuracy (2)
	integrity (2)
	completeness (0)
	consistency (2)
	comparability (3)
	ambition (4)
	continuous improvement (8)
	flexibility (0)

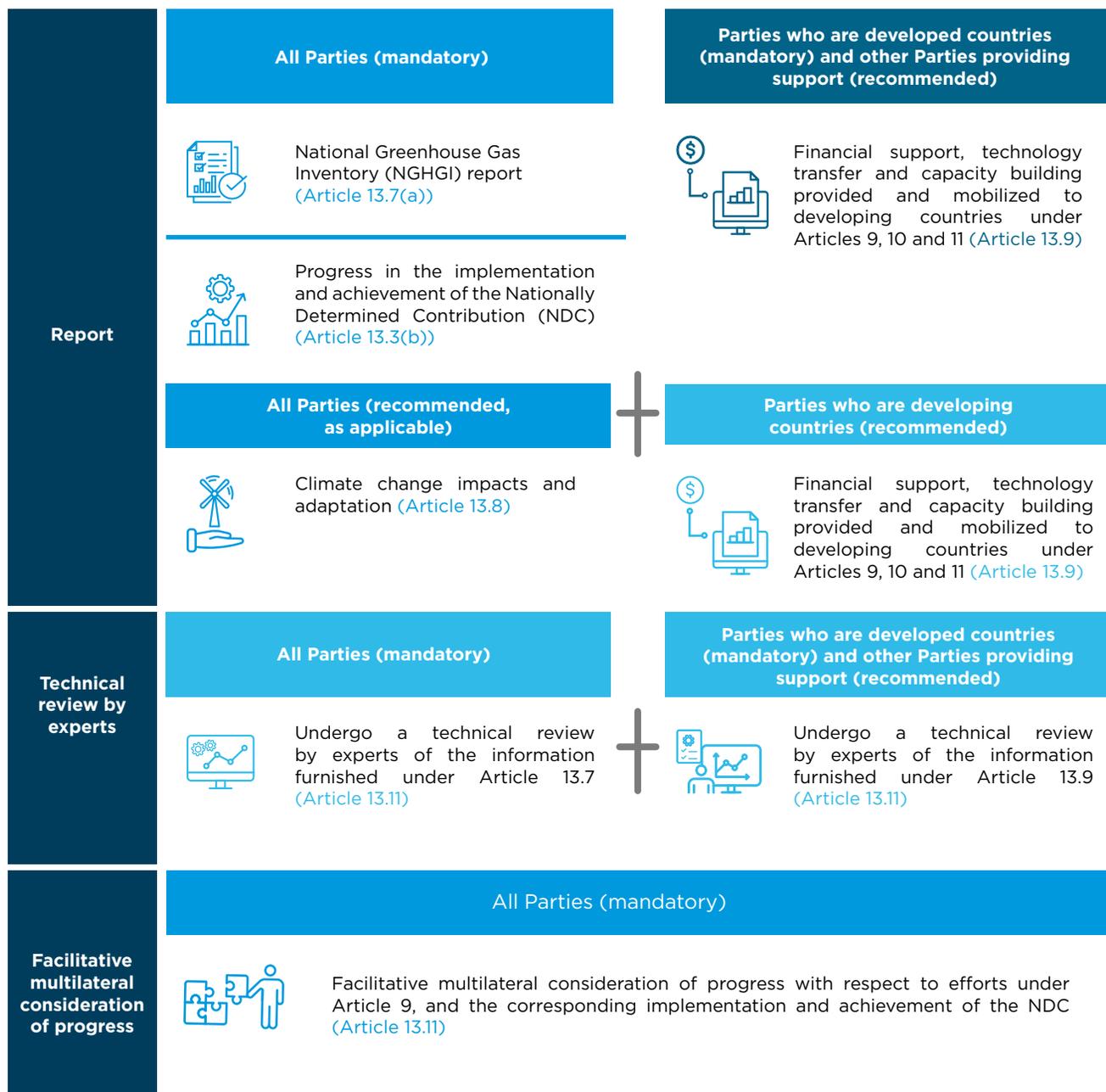
Source: Own elaboration

Report Elements

The operational details for the implementation of the Paris Agreement and the definition of elements under the ETF were consolidated in the “Paris Rule Book” on December 2018 at the United Nations Conference on Climate Change in Katowice (COP24) and finalized at COP26 in Glasgow.

The “Paris Rule Book” establishes modalities, procedures and guidelines (MPGs) for ETF operation, including the information reporting obligation under Article 13, the deadlines and the review processes. Although MPGs apply to all countries, that is, there is no difference in periodicity, content and type of report for Annex I and Non-Annex I countries, certain flexibilities are established for developing countries.⁶

⁶ Dal Maso and Canu 2019 <https://climateactiontransparency.org/wp-content/uploads/2019/11/ICAT-MPGs-publication-final.pdf>

Figure 4. ETF Report Elements

* The transparency framework will offer flexibility to the Parties who are developing countries in the implementation of provisions under this Article, when needed and in light of their capacities (Article 13.2)

* The transparency framework shall recognize any special circumstances of least developed countries and small island developing States (Article 13.3)

Source: adapted from UNFCCC 2023

1. CONTEXT

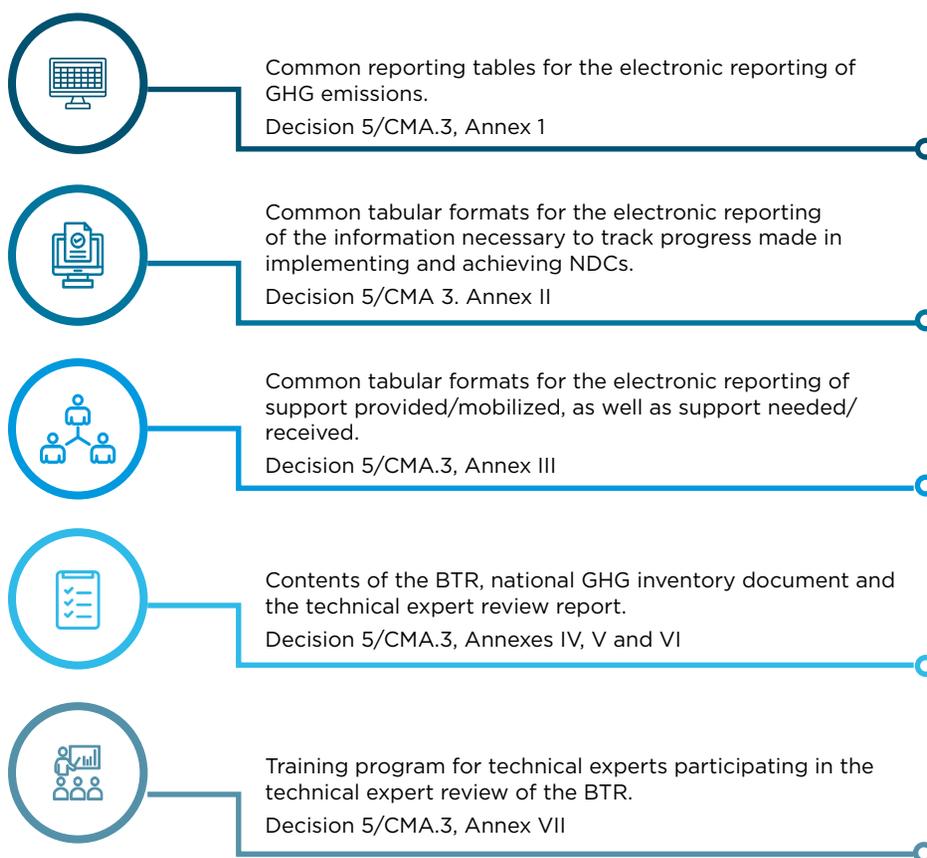
As presented in Figure 4. ETF Report Elements, Parties are required to submit information related to their NGHGs and their progress on NDC implementation in their BTRs. Information related to adaptation and support is reported on a voluntary basis and only developed countries have an obligation to report information on the support provided and mobilized.

NGHGI reports and Adaptation Communications may be submitted as separate documents. The former is a mandatory deliverable according to article 13 and a component of the BTR, while the

latter is not mandatory and may be submitted with the BTR, the NDC, the National Communication or the National Adaptation Plan.⁷

It is important to underline that BTR information must be presented taking into account the standardized tables and reporting formats. These formats are called CRT and CTF (Common Reporting Tables and Common Tabular Format, respectively) and are the result of a Glasgow agreement (2021) on reporting. However, developing countries may specify any flexibility that is part of their reports with the annotation “FX”.

Figure 5. COP 26/CMA3 Decisions



Source: adapted from UNEP 2022

⁷ Dal Maso y Canu 2019, p. 53 <https://climateactiontransparency.org/wp-content/uploads/2019/11/ICAT-MPGs-publication-final.pdf>

Relationship Between ETF and Global Stocktake

The Global Stocktake covers the thematic areas of mitigation, adaptation, and means of implementation and support, in light of equity and the best available science. It also considers efforts to address loss and damage and the social and economic consequences of response measures.

It is a global inventory exercise that informs Parties about updates and seeks to strengthen their actions and international support, thereby encouraging greater ambition in subsequent NDCs.



COP26 Milestones

- Parties reached an agreement on the outstanding issues regarding the Paris Agreement application rules, specifically the operational details for its implementation. These include standards related to carbon markets (Article 6), thus providing certainty and predictability to market and non-market approaches in support of mitigation and adaptation.
- Common deadlines for emission reduction targets (NDCs).
- The Enhanced Transparency Framework (ETF) was established so that everyone adopts a common approach for monitoring and communicating their emissions, support and actions. This milestone underscores the importance of regularly reporting on each country's progress to boost confidence in all Parties' contribution to the global effort.



Decisions Taken Within the Framework of the Glasgow Climate Pact

The operationalization of the ETF was completed during COP 26 in Glasgow. The established guidelines provide for report information to be uniform so it may be analyzed with scientific rigor. As seen in Figure 5. COP 26/CMA3 Decisions, the completion of the MPGs for the ETF comprised the definition of the format and content of the structured summary, the BTR, the technical expert review report, the common formats and the reporting tables.

The structured summary, which synthesizes the information for monitoring the

implementation of NDCs, is organized in four tabular formats: **1) description of indicators; 2) definitions for understanding NDCs; 3) accounting approaches and methodologies; and 4) monitoring progress in NDC implementation.**

Annex IV to decision 5/CMA.3 sets out the content of the BTR, in accordance with the ETF's MPGs for actions and support referred to in Article 13 of the Paris Agreement. This content is suggested and countries may organize the report according to their context and national priorities.



1.3. Transparency, Access to Public Information and Open Data

Data Governance and Access to Public Information

Data governance⁸ for smart management of open climate data encompasses standardized policies and procedures implemented by countries to guarantee data accuracy, reliability, integrity, accessibility and security.

This type of open climate data governance has multiple benefits for the formulation of climate policies and actions at the local, national, regional and global levels, of which the following stand out:

⁸ Cerrillo Martine, Agustí, (2018), "Mass data and open data for intelligent governance", in The information professional, ISSN 1699-2407, Vol. 27, N° 5, (Issue dedicated to: Political information and social networks (I)), pp. 1128-1135.

(United Nations Framework Convention on Climate Change UNFCCC 2022, p. 19).

Quality: data improvement due to monitoring and feedback from all users, including detection of inconsistencies and errors.

History: creation of databases with certain periodicity.

Policies with a technical foundation: formulation of climate policies based on reliable information, allowing for the incorporation of risk, of data on emissions from sectors and the alignment of decisions with climate objectives in strategic planning.

Consultations: stakeholder engagement and collaboration (civil society, academia, private sector, other public sector agencies at different levels of government) for social appropriation of decisions and actions.

Comparability: progress in the creation of a unique and homogeneous database between countries and improvement in data collection efficiency.

To address the matter of access to public information, this publication took into account the definitions of the Organization of American States (OAS), the Economic Commission for Latin America and the Caribbean (ECLAC), and a large part of the regulations in force at the regional level. Accordingly, the following is taken as the definition of the right of access to public information:



The right of access to public information includes the possibility of freely searching, accessing, requesting, receiving, copying, analyzing, reprocessing, reusing and redistributing the information under the custody of a Public Authority.”



This definition is relevant in an operational context because it allows us to identify the existence of legal instruments that give rise to the implementation of this right. In this regard, it should be noted that the countries analyzed that do have applicable regulations have characterized said legislation in various ways. This will be further explained in the third section of this publication.

Open Data

The right of access to public information today is intrinsically linked to the concept of open data. Various regulations and the Inter-American Model Law 2.0 on Access to Public Information⁹ establish that access to information must be in open data format.

In terms of open data, this report adopts the definition of the Open Data Charter.¹⁰ The charter is the result of a collaboration between more than 170 governments and organizations that work to open up data based on a set of shared principles. In Latin America and the Caribbean, four countries have adopted the Open Data Charter¹¹: Colombia, Chile, Panama and Uruguay¹². The Charter promotes policies and practices that enable governments and civil society to collect, share and use well-managed data to respond effectively and responsibly to the following focus areas: anti-corruption, climate action, and pay equity. According to the Charter, open data is:

“

Digital data that is made available with the necessary technical and legal characteristics so that it can be used, reused and redistributed freely by anyone, at any time and in any place.”

⁹ https://www.oas.org/es/sla/ddi/docs/publicacion_Ley_Modelo_Interamericana_2_0_sobre_Acceso_Informacion_Publica.pdf

¹¹ <https://opendatacharter.net/>

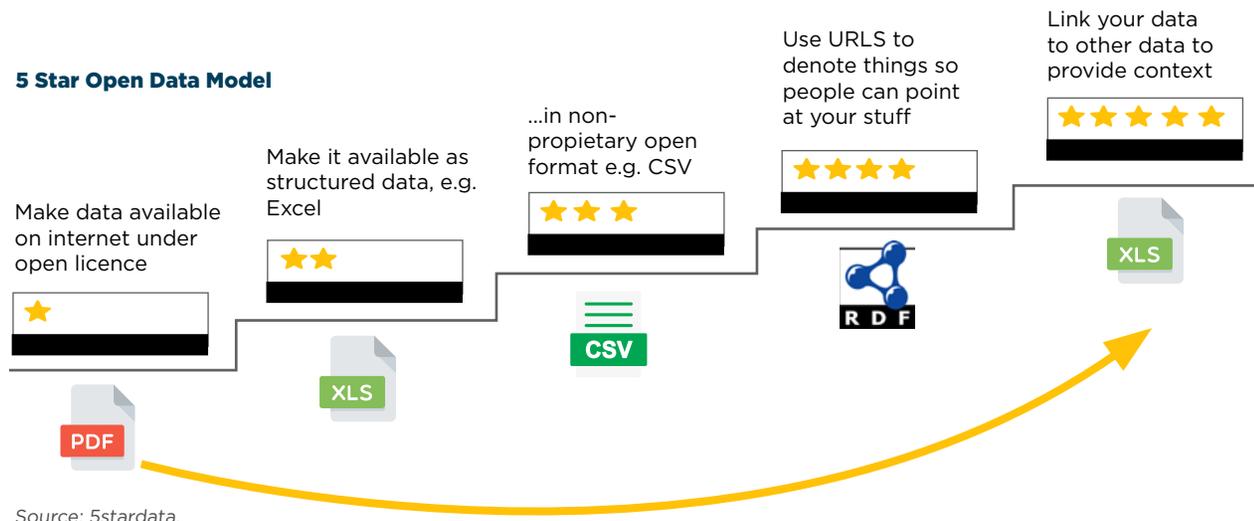
¹² <https://opendatacharter.net/principles-es/>

1. CONTEXT

It is interesting to consider the five-star open data model¹³, which proposes a ranking of different formats to open up

data, where the one with the most stars is the most appropriate (see Figure 6. The five stars of open data)

Figure 6. The Five Stars of Open Data



The Charter also proposes six open data principles with which governments must comply: open by default, comparable and interoperable, timely and comprehensive, accessible and usable,

for improved governance and citizen engagement, accessible and usable and for inclusive development and innovation.

Figure 7. Principles of the Open Data Charter



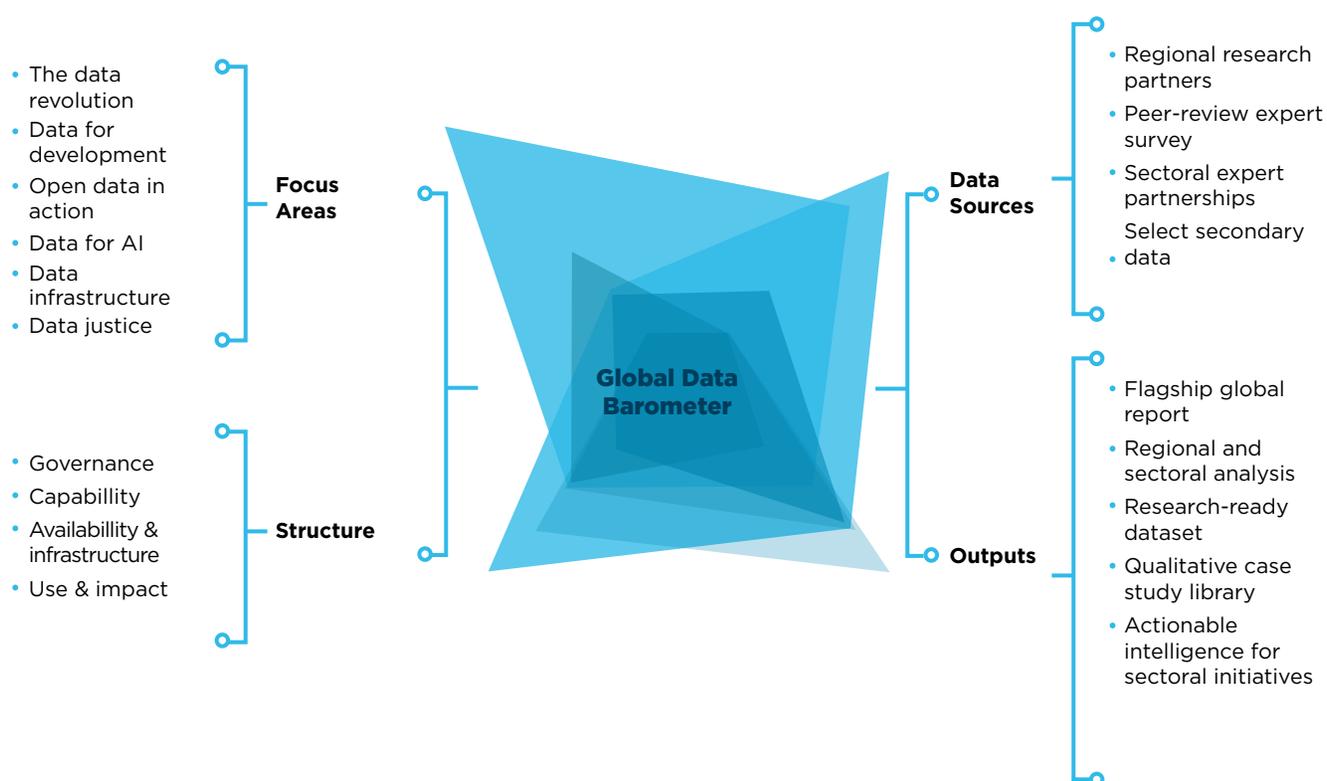
Source: Own elaboration

¹³ <https://opendatacharter.net/government-adopters/>

Additionally, this publication takes into account the results obtained in the Global Data Barometer (GDB), which “assesses countries around the world on a set of robust comparative metrics focused on data for public good”.¹⁴ The barometer is built on four pillars: governance, capability, availability and infrastructure, and use and

impact. In addition, it has different areas of focus (e.g., data for development, data for artificial intelligence, among others). Figure 8. also shows the data sources of the study (e.g., regional research partners, peer review surveys, etc.), and the main products (e.g., global reports, sectoral and regional analyses, among others).

Figure 8. Global Data Barometer: Structure, Focus Areas, Data Sources and Outputs

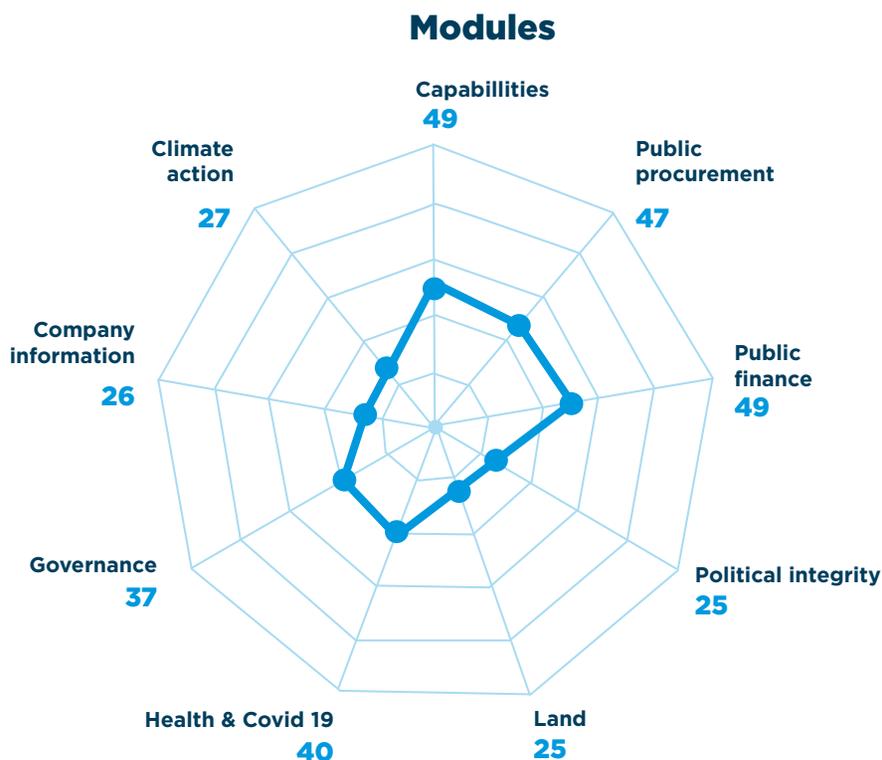


Source: Global Data Barometer

The barometer is also built with thematic modules: capabilities, public procurement, public finance, political integrity, land, health and Covid-19, governance, company

information, and climate action. This report studies the general results, with a focus on the climate module.

¹⁴ <https://globaldatabarometer.org/research/methodology/>

Figure 9. Global Data Barometer: Thematic Modules

Source: Global Data Barometer.

Climate Change and Access to Public Information

By ratifying the UNFCCC and the Kyoto Protocol, countries commit to, among others, periodically preparing and submitting to the UNFCCC their National Communications and their Biennial Update Report. These documents should include the National Inventories of Greenhouse Gas Emissions and Absorptions as well as climate change mitigation and adaptation plans and programs.

Article 13 of the Paris Agreement establishes the ETF, while Article 12 proposes instances of public awareness, participation and access to information. Starting in 2024, countries will communicate transparently the measures adopted and the progress made in terms of climate change mitigation and adaptation, as well as any related financial resources (i.e., climate finance) finance provided or received.

In this context, it is extremely important to reinforce and establish countries' efforts in regard to data reporting, and support them in the governance capabilities required to strengthen their reporting mechanisms. It is also important to enable conditions for countries to carry out transparent processes that allow them to access additional financing opportunities and that consolidate their credibility regarding climate action.

The importance of access to information and citizen participation was evidenced at the United Nations Conference on Environment and Development (Rio de Janeiro, 1992):

“

Environmental issues are best handled with **participation of all concerned citizens**, at the relevant level. At the national level, each individual shall have appropriate **access to information concerning the environment** that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to **participate in decision-making processes**. States shall **facilitate and encourage public awareness and participation** by making **information widely available**. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided”.

(Principle 10 of the Rio Declaration on Environment and Development, 1992).

1. CONTEXT

Twenty years after the adoption of Principle 10, various countries in Latin America and the Caribbean led a regional declaration at the United Nations Conference on Sustainable Development (Rio+20, Brazil June 2012), initiating a collaborative process to fully implement rights to access.

In March 2018, the adoption of the Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean (better known as the Escazú Agreement), laid the foundations for a paradigm shift in the dynamics of governance and environmental and climate democracy in the region¹⁵. It is the only binding agreement emanating from Rio+20, the first regional environmental agreement in Latin America and the Caribbean, and the first in the world to contain specific provisions on human rights defenders in environmental matters. The Escazú Agreement seeks, among other things, to guarantee the full and effective implementation of the rights of access to environmental information and public participation in environmental decision-making processes, reinforcing Principle 10 of the Rio Declaration. Its provisions include a gender perspective, an open government approach and the application of priority criteria for people and groups in vulnerable conditions.

The Regional Agreement is open to LAC's 33 countries. The signing period took place between September 27, 2018, and September 26, 2020. After that date, it is open to accession by any country in the region included in Annex 1.

The Escazú Agreement entered into force on April 22, 2021, upon reaching the requirements established in its Article 22.

Figure 10. Milestones in Climate Change



Source: Global Data Barometer.

¹⁵ <https://www.cepal.org/en/escazuagreement>

02

ANALYSIS OF THE SITUATION AND CAPACITIES FOR THE ADOPTION OF THE ENHANCED TRANSPARENCY FRAMEWORK IN LATIN AMERICA AND THE CARIBBEAN



2.1. Methodology



2.2. Phase 1: Governance, Participation and Gender Analysis



2.3. Phase 2: Analysis of Mitigation and Adaptation Components



2.4. Link between the ETF and Long-term Climate Strategies



2.1. Methodology

LAC countries have gradually built their experience to respond to reporting requirements established by the UNFCCC. While the ETF was established on the basis of existing reporting and review processes under the UNFCCC, it creates additional obligations for MRV and monitoring and evaluation (M&E) systems that countries have built. It should be noted that countries already had challenges in this area, so it is still necessary to support them in strengthening MRV and M&E capacities.

To ascertain the countries' situation with respect to EFT implementation, we address the compliance level of documents furnished by the countries (the BURs, the National Communications, the NDCs and their NAP, where applicable) with respect to reporting provisions.

The analysis focuses on:

- Transversal issues in the reports: governance, participation and gender.
- Mitigation and adaptation components.

The analysis is based on the results of a study carried out by the Center for Global Change of the Catholic University of Chile between August and December 2021. The scope of the study covers ten countries in Latin America and the Caribbean. In the first phase of the study, criteria related to transversal issues (governance, participation and gender) are evaluated, while in the second, the focus is on mitigation and adaptation. The aim is to establish a baseline while acknowledging that, after the analysis was conducted,

countries have continued to communicate their progress through various means. Therefore, the results presented below reflect the situation at a specific moment and it is expected that, with subsequent applications of the methodology, the region's progress will become evident.



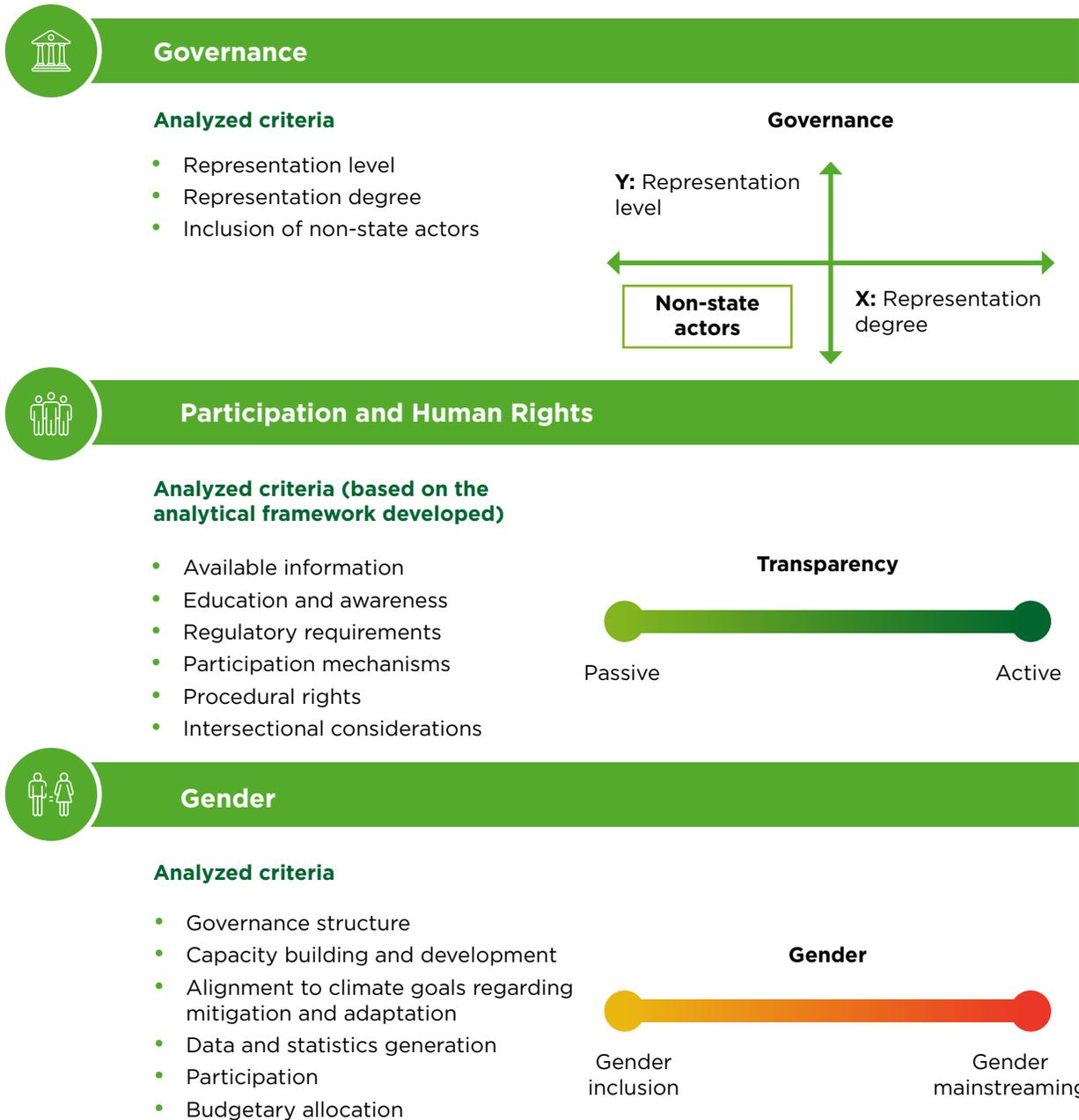
2.2. Phase 1: Governance, Participation and Gender Analysis

To study the countries' current situation regarding transversal issues, a qualitative analysis framework was built, based on the systematic and orderly review of the relevant and publicly available official documents of each country, including NDCs, climate change framework laws, LTSs and other related documents (e.g., climate change and gender plans). The reference material was selected because its comprehensive nature enables transversal components to be integrated, and its sustainability, progress or regression over time could be analyzed.

Figure 11. shows a table summarizing the criteria used to describe each country’s particular situation with respect to the transversal issues, based on the results

of the following dimensions: governance, participation based on human rights (encompassed by the concept of transparency), and gender.

Figure 11. Criteria for the Analysis of Transversal Dimensions



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

Governance

Climate change governance refers to the combination of legal frameworks, institutional arrangements, and finance and coordination mechanisms that work together to support the implementation of climate change strategies, policies, and programs.¹⁷ To guarantee the sustainability over time of climate policies and actions, a governance structure is required.

In the last five years, substantial progress has been achieved regarding the formulation and issuance of laws and/or framework policies giving legal support to climate change management at the national level. There has also been progress in the establishment of committees, commissions or dependencies in charge of national climate change management processes.

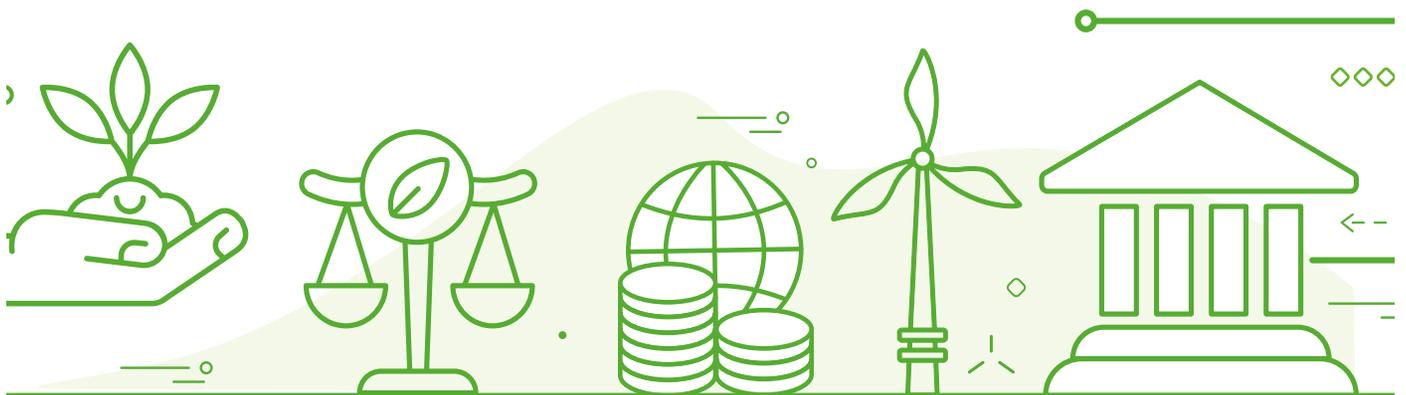
Institutional arrangements vary from country to country, take different forms, and are established at different levels of decision-making according to the national political context, the institutions that have been established to work on these issues, and the articulation instances, among others. Processes such as the preparation of NDCs, monitoring and reporting of mitigation and adaptation actions, and

vulnerability and risk analysis may require the development of specific governance frameworks.

Of the ten countries analyzed:

- Two have climate change laws
- Three have LTSs
- Four have climate plans and strategies other than the LTSs.

The results of the analysis show that half of the countries have representation at the presidential level, while in the other half the issue of climate change is led mainly by the ministries (of environment or equivalent). Those countries with representation at the presidential level have national climate change councils, with intersectoral participation, which delegate the role of political and technical authority to other positions under the president. These instances also exist within the framework of countries with representation at the ministerial level and are usually led by the public policy area of the ministry of environment.



¹⁷ IPCC, 2018 https://www.ipcc.ch/site/assets/uploads/sites/2/2019/09/IPCC-Special-Report-1.5-SPM_es.pdf

The impact of climate commitments on the degree of representation, that is, the extent of inter-institutional participation, underscores the importance of establishing a robust institutional framework that provides clear responsibilities for government actors that are key to climate action. For example, the inclusion of sectoral ministries or national planning and development authorities is essential for the formulation and implementation of medium and long-term strategies, such as NDCs and LTSs. Likewise, having consolidated inter-institutional committees on climate change enables climate action mainstreaming in all sectors, periodic reporting of tasks and updates on the progress of different actors. The creation of these committees places all bilateral and multilateral communication channels under a single institutional “umbrella” arrangement, allowing for the proper monitoring of climate action.

In turn, countries that concentrate the degree of representation of climate action in a few institutions should consider the creation of various institutional arrangements that allow them to closely monitor, bilaterally or multilaterally, the institutions responsible for issuing data for climate reports. It is important to have focal points within these institutions, as well as the resources needed to closely monitor climate action.

Regarding the inclusion of non-state actors, the analysis shows that all countries in the study mention their involvement in climate governance structures. However, there are different levels of involvement. Certain countries have implemented formal systems for the inclusion of these actors through advisory or technical councils, some even with elective positions for specific periods of time.

In line with the Escazú Agreement and Principle 10 of the Rio Declaration, which emphasize that the States should facilitate and promote public awareness and participation, making the information available to all, the advantages of formally including non-state actors in the process are made evident. In doing so, there are increasing chances of having greater acceptance and commitment from these actors, and of having technical support and information to improve national estimates and models, among others.

In 2019, the IDB conducted a study on good practices in the inclusion of civil society in climate agendas¹⁸ and found that, of the five levels of engagement (information, dialogue, consultation, collaboration, and alliance), NDCs tended to favor only the consultation component, with a lower incidence of the other four levels. As a recommendation of this study, countries were urged to explore the six Open Government Standards for Citizen Participation, which are: i) wide dissemination, ii) combination of face-to-face and virtual practices, iii) clear and reasonable deadlines, iv) complete, clear and understandable information; v) feedback from civil society, and vi) transparency and accountability.

Human Rights-Based Participation

Participation has taken a prominent role in NDC update processes in the region, due to the lessons learned from the first NDC formulation processes carried out in 2015. There are different types and levels of participation or interaction between the government and the public, which can be placed on a spectrum ranging from reporting and listening at one end, to implementing jointly agreed solutions at the other. In the middle of these two are dialogue, debate and analysis.

¹⁸ <https://publications.iadb.org/es/gobiernos-y-sociedad-civil-avanzando-agendas-climaticas>

A human rights-based participatory approach produces multiple benefits. It may inform the formulation and monitoring of climate action, ensure access to essential information, promote effective participation, and ensure access to justice. A human rights-based program is more likely to provide early warning of problems, strengthen the accountability of all actors, and promote feedback. At its most basic, access to environmental protection and information is essential for the realization of fundamental human rights, including the rights to food, health and even life.

The analysis of the sample of LAC countries indicates that all of them have regulations, both general and specific, regarding access to participation and environmental information. These regulations acknowledge access to information as a catalyst for individual and collective action on climate-related matters. However, the approach and development of these regulations vary: some countries emphasize the importance of transparency in providing information, while in others, the focus is on ensuring access to information and participation from a standpoint of citizen rights or as a responsibility of the State to provide and promote information.

Next, we will analyze the quality of these participation mechanisms to ascertain the degree of access to information. For example, an open and active information platform has advantages over those that are closed and not up to date.

Regarding environmental education:

Eight countries have decrees or laws to promote the dissemination of information, education, training and public awareness on climate change.

Only two countries mentioned the importance of establishing a relationship between the ministries of the environment and the ministries of education to advance on this issue. The rest of the countries refer to environmental education as a problem that only concerns the ministries of the environment.

On the other hand, eight of the ten countries analyzed have mechanisms or implementation bodies to facilitate access to information commitments, of which:

Three countries mention the existence of systems for access to information, but these serve mainly as sources of access to information for citizens and not as mechanisms that strive to increase the participation of different interest groups.

Five countries have implementation bodies that go beyond access and promote the right to information, transparency and social control in public actions. Of these, only four have specific mechanisms to strengthen and increase citizen participation for climate action.



Regarding the formulation of national commitments on climate change, all countries with LTSs used participatory mechanisms to create or approve the proposed plans. Likewise, of the seven countries that updated their NDCs, six provide comprehensive descriptions of their future commitments to citizen participation and/or the participatory processes that were part of the construction of the document.

Finally, the analysis indicates that all countries have transparency portals for citizen access. Depending on the information available and its nature (LTSs, environment,

climate change), some countries have chosen to have several channels, while others centralize the information in just one.

The analysis presented above places the countries on a spectrum according to their participation approach (see Figure 12. Transparency Spectrum and Types of Participation). The position in the spectrum varies from a passive transparency to an active one. In the passive, each person can request and receive climate information held, under control or in the possession of a competent authority. In turn, active transparency is related to the proactive generation and dissemination of climate information by the government.

Figure 12. Transparency Spectrum and Types of Participation



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

Gender Approach

Article 11, paragraph 2 of the Paris Agreement states that “capacity building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties, in particular, for developing country Parties, including at the national, subnational and local levels. Capacity building should be guided by lessons learned, including those from

capacity building activities under the Convention, and should be an effective, iterative process that is participatory, cross-cutting and **gender-responsive**”.¹⁹ Likewise, the need to incorporate the gender perspective in the work and purposes of the Convention has been recognized in different COP decisions in recent years, since this contributes to increasing the

¹⁹ CMNUCCC, 2019 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-katowice-climate-package/katowice-climate-package>

effectiveness, equity and sustainability of climate policies and actions.

To analyze the gender approach in climate transparency, two mainstreaming pillars were identified: **governance structure** and **capacity building**. Likewise, there are some basic components that enable the incorporation of the gender approach in climate action: **alignment of mitigation and adaptation climate goals, data generation and statistics, participation, and budget allocation**. These pillars and enabling components constitute the analysis framework for the situation of the ten LAC countries included in the scope.

As shown in Figure 13. Spectrum of Gender Mainstreaming in Climate Action, four countries have mainstreamed gender in most elements of the analytical framework. The rest of the countries analyzed fall between the middle of the spectrum and passive transparency, with a more limited inclusion of the gender perspective in their instruments.

Regarding the regulatory framework, only two countries have an established and regulated framework for governance in gender and climate change. Most of the countries implement an inter-ministerial cooperation that includes the entities in charge of the environment and those in charge of gender/women, but which does not maintain a continuous operation over

time. On the other hand, with the exception of one, the countries analyzed do not have a framework for continuous capacity building in gender and climate change.

Regarding the alignment of climate goals in mitigation and adaptation, six of the countries mention gender considerations in their climate plans and actions under a vulnerability and/or resilience framework, and three combine gender considerations with those of indigenous people, afro-descendants and other intersections.

On the other hand, two of the countries in the sample incorporate a gender perspective in relation to mitigation efforts within the forestry sector of REDD+. In two other, countries, this perspective is applied in the context of the transport sector. Only one country takes into account various sectors for both mitigation and adaptation.

In relation to the generation of data and statistics, progress is limited. Only one of the countries has been able to disaggregate the GHG data and other relevant data to monitor the progress of climate commitments at the national level by sex and gender sensitivity. Similarly, only one country has a tool for monitoring gender-sensitive budgets in climate action. The rest of the countries have budget allocations for gender actions, but most come from isolated international donations and not from a national budget allocation.



Figure 13. Spectrum of Gender Mainstreaming in Climate Action

Source: UNEP, *Pathways to Climate Transparency Latin America and the Caribbean*



2.3. Phase 2: Analysis of Mitigation and Adaptation Components

For this part of the analysis, we built a quantitative index called the Transparency Index. The index enables us to depict the current state of ETF implementation in countries and monitor its ongoing progress. Given the different nature of the analyzed components, we developed sub-indices for mitigation and adaptation.

The transparency requirements applicable under the Paris Agreement to each of the components analyzed were identified and broken down to develop the index. A numerical scale from 0 to 4 was established to evaluate countries according to their level of compliance with the specific provisions of the ETF, based on what was reported by them in the documents considered for the analysis.

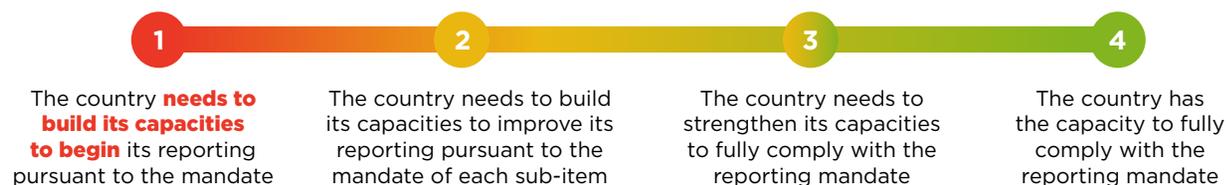
The index is presented using a gradual color scale, with varying shades symbolizing the extent of compliance with the requirements contained in the Paris Rule Book and the Glasgow Climate Pact (see Figure 14. Assessment Scale of the Transparency Index). The maximum value (4) indicates 100 percent compliance with transparency-related reporting commitments.

The analysis was done based on the information contained in relevant climate action reporting documents provided by countries up until December 2021, including: NDC, BUR, NGHGI and NAP documents, among others.

This exercise also enables the identification of the priority issues on which efforts related to capacity building or improvement could be focused and to which own or donor

resources could be directed to help LAC countries achieve the reporting standards established by the ETF.

Figure 14. Assessment Scale of the Transparency Index



Source: UNEP, *Pathways to Climate Transparency Latin America and the Caribbean*

Mitigation: National Greenhouse Gases Inventories

The first section of the ETF addresses the reporting mandates associated with NGHGs. Decision 18/CMA.1 sets out the reporting provisions, which include a national inventory document and common reporting tables, prepared in accordance with IPCC guidelines.

In the countries analyzed, progress on transparency regarding NGHGI is varied. An advanced group stands out with an average Transparency Index between 3 and 3.8; followed by a group showing a medium level of transparency with index values between 2.1 and 2.5; and a less advanced group with an index value below 1.9.

As shown in Figure 15. Results of the Analysis of ETF Provisions on the NGHGI, the categories where the lowest level of articulation with the reporting mandates under the ETF are observed are consistency in the time series and recalculations, evaluation of uncertainty, metrics, and time series.

Specifically, observable difficulties persist in these countries regarding the presentation

of annual time series that comply with the lag required by the provisions (up to 2 years), the use of the Global Warming Potentials (GWP) of the IPCC Fifth Assessment Report (AR5) and the presentation of recalculations (or new calculations) of their previous inventories.

Beyond the report, categories with a lower level of articulation are related to other climate action management processes. For example, the metrics allow for the comparability of inventories, not only for global monitoring of GHG emission levels, but also for the use of the inventory as a tool to facilitate monitoring of climate goals.

In turn, the time series generate information on historical trends that are the basis for monitoring national mitigation actions and are directly related to NDC baselines. GHG emissions projections used in NDC formulation are constructed from the historical series. Therefore, the more recent and accurate the historical data, the more reliable the emissions projections.²⁰

²⁰ Vaidyula, M. y Rocha, M. 2018 https://www.oecd-ilibrary.org/environment/tracking-progress-towards-ndcs-and-relevant-linkages-between-articles-4-6-and-13-of-the-paris-agreement_358aae24-en

Figure 15. Results of the Analysis of ETF Provisions on the NGHGI



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

Mitigation: NDC Monitoring

According to the information in the public registry established by the UNFCCC Secretariat, 33 LAC countries have communicated their first NDC to the UNFCCC and 27 have updated it²¹. Considering the information from 7 of the 10

countries analyzed, the carbon budget²² for 2030 is 1,478 MtCO₂. It is worth noting that LAC’s share in terms of net GHG emissions²³ is 8.4 percent, so net GHG emissions per capita are 6.4 MtCO₂ -eq4.

²¹ <https://unfccc.int/es/NDCREG>

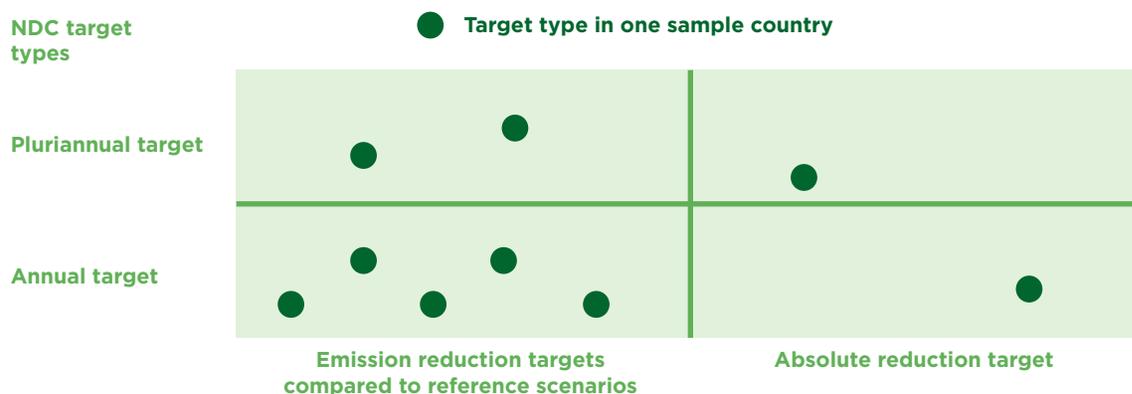
²² Carbon budgets reflect the maximum cumulative amount of carbon dioxide equivalent (CO₂e) emissions over a given period.

²³ Includes the impact of land use practices. <https://www.imf.org/-/media/Files/Publications/REO/WHD/2021/Spanish/CH3.ashx>

In the sample of LAC countries analyzed, most of the countries have included GHG emission reduction targets on an annual basis and in comparison to a reference scenario (see Figure 16. Country Classification per Type of Target. The type of target is a

determining factor when establishing the alternatives and the accounting elements required for monitoring NDCs, such as NGHGs, impact estimates and mitigation results based on policies and actions, among others.

Figure 16. Country Classification per Type of Target



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

Under the ETF, NDC implementation progress is the second mandatory reporting section. Two mandates establish the reporting elements for the communication of national commitments and their progress with respect to the mitigation component: (i) decision 4/CMA.1 (information to facilitate clarity, transparency and understanding of NDCs), (ii) and decision 18/CMA.1 (information for the BTR report).

The reporting provisions discussed in this part include information related to target type, scope, GHG mitigation interventions²⁴, coverage and timing. It also includes

information related to the accounting approaches, methodologies, assumptions and indicators used to monitor NDC implementation and compliance.

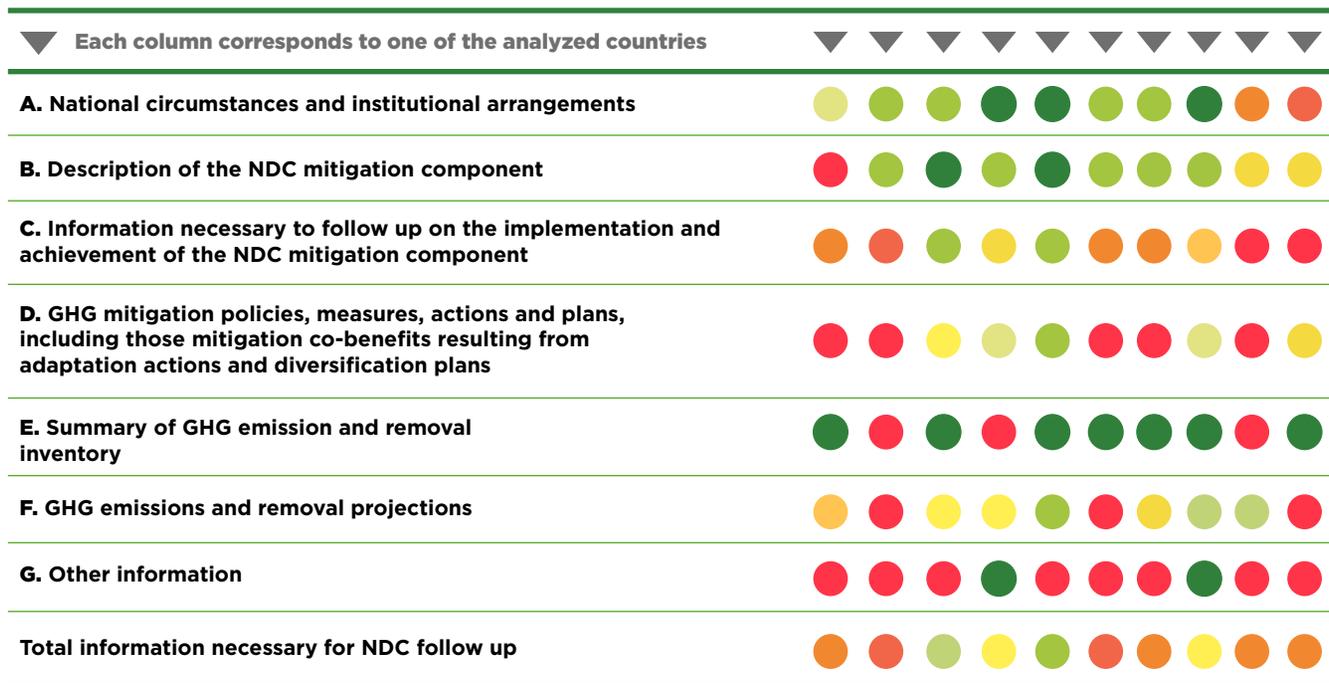
Although NDC monitoring provisions and results applicable to the BTR will be reported starting on 2024, countries that have already updated their NDCs should be more aligned, at least, with the provisions related to clarity and transparency reporting and should already have established the accounting approaches for their respective follow-up.

²⁴ Policies, plans, measures, actions.

In the sample analyzed, half of the countries show a low level of progress with respect to the NDC monitoring provisions (with a Transparency Index equal to or less than 1). Only one country achieved a high level of progress (with an index value greater

than 3). In general, countries do not include enough information to provide clarity and transparency about their NDC mitigation commitments. Difficulty is also observed in linking measures and actions with the formulated national targets.

Figure 17. Results of NDC Monitoring Provisions Analysis



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

As shown in Figure 17. Results of NDC Monitoring Provisions Analysis, the categories displaying the lowest level of articulation with the reporting mandates under the ETF are: information necessary to monitor the implementation of the NDC; mitigation policies, measures, actions and plans; and projections of GHG emissions and removals.

Countries are expected to submit GHG inventories and use a variety of indicators to track their progress towards meeting the targets. Additionally, they should provide transparent information regarding the methodologies, assumptions, definitions, and data sources they use. An ambitious NDC should be one that is actively being

implemented and that allows for the monitoring of its results.

However, few countries in the region (less than half) have established NDC monitoring indicators, indicating a significant gap in understanding how to effectively monitor national commitments. This gap has domestic repercussions, affecting the management of targets at the sectoral/territorial level, as well as the identification of responsible parties for implementation and monitoring. At the international level, it impacts the aggregation of information to feed the global stocktake that reflects progress on the implementation of the Paris Agreement.

Most of the mitigation goals of the countries in LAC are expressed in terms of emission reductions compared to a reference scenario. Therefore, countries would have to adequately gather and report quantifiable information on:

- Their benchmark or base year as applicable.
- How to monitor their NDC indicators.
- Circumstances under which the baseline may be modified.

This is closely linked to the accounting approach chosen by each country, that is, how progress will be measured in terms of mitigation and how indicators are designed.

Regarding reporting on mitigation policies, measures, actions and plans, the low level of progress may be due to challenges in aligning national targets with policies and concrete actions, determining those responsible for implementation, and gathering information for ETF follow up. This also relates to accounting and is the result of methodological difficulties that arise when trying to monitor information at both the national and measure levels.

Another topic of interest is GHG emissions and removals projections because this information is essential for countries to plan their commitments and monitor progress over time. However, it presents a great challenge in terms of the articulation of actors, since emissions not only depend on environmental data, but also on growth drivers at the sectoral level (e.g., growth projections of different industries or sectors and predominant technologies

as part of the sectoral activity) or social and economic levels (e.g., gross domestic product, fuel prices, population). This is data that must be requested from and requires coordination with different ministries to ensure its accuracy.

As part of the BTR, countries must submit a structured summary, which synthesizes the information reported in a uniform and consistent manner to visualize the progress of each Party toward compliance with its NDC. The Common Tabular Formats for the structured summary were developed and finally adopted at CMA 3, during COP26 in Glasgow²⁵. These include, among others: the description of the indicators selected for NDC monitoring, the definitions applicable to the NDC, and progress updates of NDC implementation and achievement. These elements are key categories that require strengthening²⁶ in the countries analyzed through the Transparency Index presented in this section.

Adaptation

The Paris Agreement ETF reporting framework comprises NDCs, Adaptation Communications and the BTR as relevant instruments for adaptation communication. However, NAPs are still valid as tools designed to facilitate decision-making. They provide a prospective look at a country's situation and its identified needs, priorities and measures.

Information generated by the Transparency Index and resulting from desk research showed the countries' efforts to disclose their national circumstances, their legal arrangements and frameworks, and the effects of climate change on each of

²⁵ UNFCCC, 2022 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact/cop26-outcomes-transparency-and-reporting>

²⁶The type and level of strengthening varies in each country. While some countries require technical capacity building and the identification and allocation of economic resources to start reporting in accordance with the mandate, others require the strengthening of technical capacities and the allocation of human and economic resources.

their particular contexts. The application of the Transparency Index illustrates the differences in approaches and instruments used by the countries in preparing their adaptation reports. As shown in Figure 18. Results of the Analysis of the Provisions for Adaptation and Loss and Damage, five of the countries achieved a medium level of transparency with average values between 2.2 and 2.8. The rest of the countries obtained a value below 1.9.

The application of the index shows that countries have made progress in analyzing and reporting the effects, risks and vulnerabilities to climate change at different levels and under different approaches. However, due to these differences, we observe that some countries have few studies, even when they are highly vulnerable. In the adaptation Transparency Index, the categories with the lowest level of progress in the countries analyzed correspond to the progress made in the application of adaptation measures and the monitoring and evaluation of adaptation processes and measures.

Based on the documents reviewed, it is important to highlight the lack of information and indicators to assess results and progress, as well as the lack of monitoring and evaluation of the measures implemented. Information group F obtained the lowest performance. This group refers to information related to monitoring through indicators and assessing the effectiveness and sustainability of the measures.

The analysis also showed that, although many NAPs mention the importance of monitoring through the establishment of M&E systems, most are in the process of conceptualization or construction. In LAC, several countries have gradually advanced in the conceptualization of their adaptation monitoring systems, with different combinations of qualitative analysis and quantitative and qualitative indicators, under different objectives and approaches, as follows:

- Countries with M&E systems that are underdeveloped or under construction.
- Countries that do not conduct monitoring based on central M&E systems, but rather focus their monitoring efforts on adaptation policies, national plans or concrete projects.
- Countries that have already implemented a comprehensive system with indicators to monitor adaptation actions, either within the framework of other systems or as standalone initiatives.

An important challenge for the countries of the region is the diversity of approaches with respect to M&E and the variables they monitor, which determine the nature and scope of the information generated and the possibility of attributing changes to concrete adaptation actions.

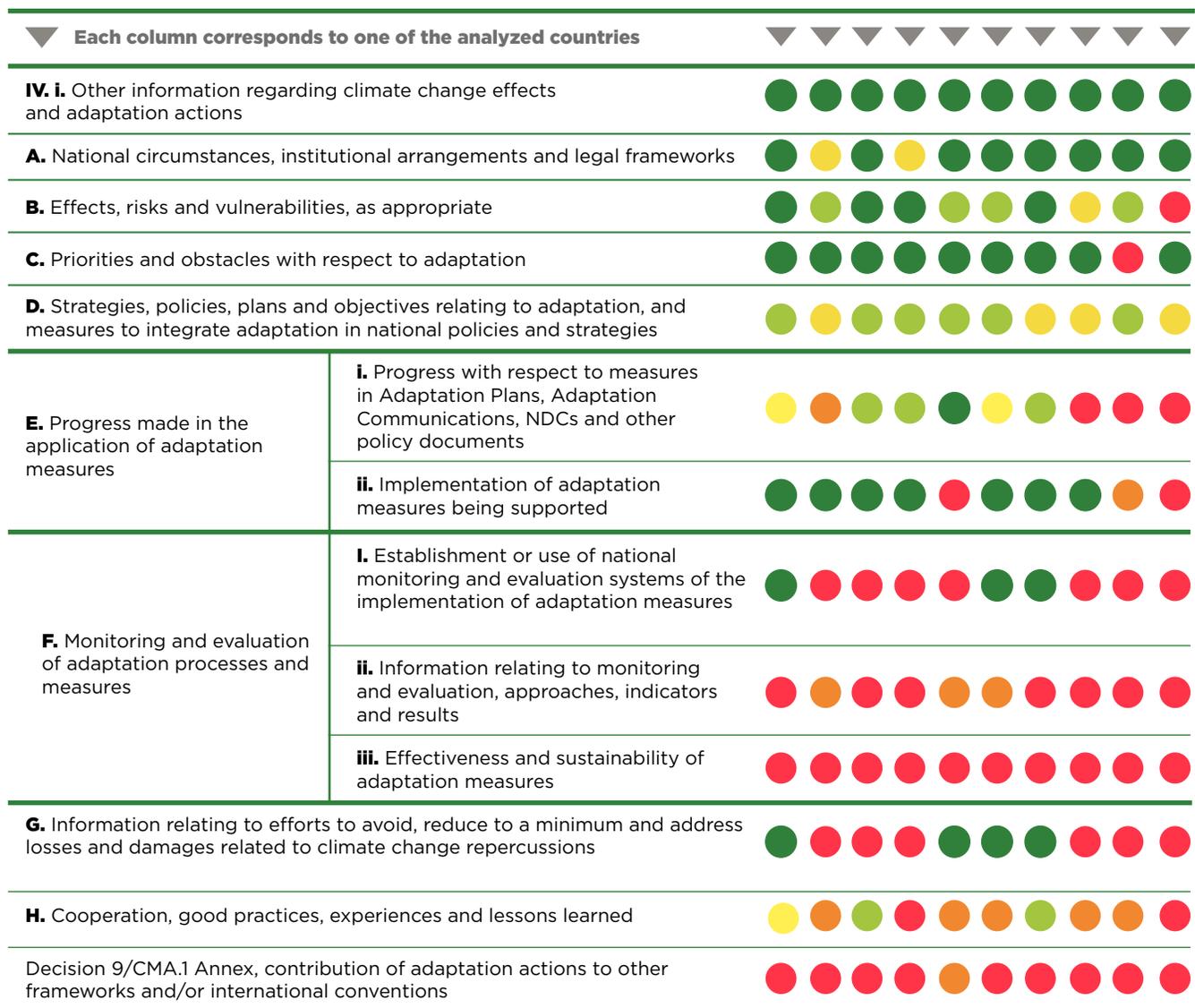


Regarding indicators, some countries have made progress in the implementation of adaptation indicators by establishing roadmaps and data collection sheets to systematize the achievements obtained. However, the trend has been to develop process indicators instead of impact indicators. This is directly related to the ETF requirements for category F (monitoring and evaluation of adaptation processes and measures), which aims to address the

question of the outcomes and impacts resulting from the implemented adaptation actions.

Another M&E element related to adaptation processes and measures involves the analysis of their effectiveness, sustainability and replicability. Countries in the region must build the capacities to initiate reporting pursuant to the ETF mandate.

Figure 18. Results of the Analysis of the Provisions for Adaptation and Loss and Damage



Source: UNEP, Pathways to Climate Transparency Latin America and the Caribbean

Monitoring and reporting on adaptation actions continues to represent the greatest challenge for countries. In this area, it is imperative to stress the importance of the concepts of effectiveness, efficiency, sustainability and replicability. As Dale et al. point out in the ICAT publication on the transparency of biennial reports and the adaptation area²⁷, “evaluating the sustainability of adaptation is likely to be the most difficult for countries. Ideally sustainability would be provided by describing how the results of adaptation have changed overtime. Providing this information however, requires that actions have been periodically monitored over multiple monitoring periods which, in

many cases, may not be possible due to limited resources for M&E activities and/or because insufficient time has passed between implementation and reporting to allow for multiple cycles of M&E. If this information is unavailable, authors could instead provide descriptive information about any precautionary measures taken during the planning and implementation phases of adaptation that were intended to improve the its sustainability following, or during, its implementation. While not providing insights into whether adaptation is actually sustainable, it will demonstrate to the report’s audience that sustainability has been considered in the planning and implementation processes”.

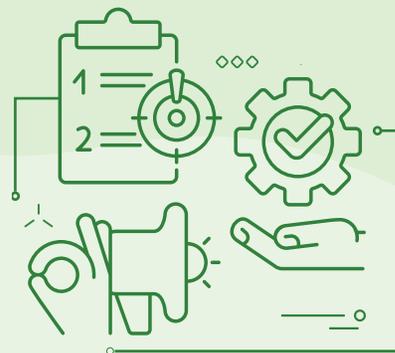
The effectiveness of adaptation refers to the extent to which an adaptation action or adaptation process has achieved its pre-defined objectives. For adaptation actions, these objectives are likely to refer to any pre-defined outcomes and impacts they were intended/expected to achieve when they were initially planned. Meanwhile, for adaptation processes, these objectives are likely to refer to top-line goals and targets that are associated with a country’s priority areas for adaptation (i.e., those requested in section C).

The efficiency of adaptation refers to the ratio between the benefit gained and the costs of implementation (generally described in terms of economic cost).

The sustainability of adaptation refers to the ability of an action or intervention to continue to achieve its desired outcomes and impacts over medium- to long-time horizons.

In theory, being sustainable is key for adaptation to be considered as successful, as adaptation that fails to be effective beyond the short-term can hardly qualify as ‘adaptation’ in any meaningful sense. In practice however, ensuring sustainability in projects and programs is a significant challenge, particularly in the period after their initial lifecycles, where funding and responsibilities typically end.

The replicability of adaptation refers to the potential for it to be repeated, expanded, or scaled-up, while continuing to be effective in achieving its pre-defined objectives.



²⁷https://climateactiontransparency.org/wp-content/uploads/2020/09/Reporting-adaptation-through-the-biennial-transparency-report_an-explanation-of-the-guidance_ICAT_UNEP-DTU-PARTNERSHIP-min.pdf

Loss and Damage

Despite being considered one of the most vulnerable regions to the effects of climate change, the availability of data on loss and damage in Latin America and the Caribbean is very limited. The latest report on the State of the Climate in Latin America and the Caribbean from the World Meteorological Organization²⁸ states that the United Nations Office for Disaster Risk Reduction (UNDRR) registered a total of 175 disasters in the region during the 2020 - 2022 period. Of these, 88 percent of the events have a meteorological, climatological and hydrological origin. These hazards accounted for 40 percent of disaster-related deaths and 71 percent of recorded economic losses.

Since its involvement in international governance processes, the region has shown its concern about the state of vulnerability and adaptive capacity. Sixteen of the 33 countries that make up LAC are part of the Alliance of Small Island States (AOSIS), which has been at the forefront of talks on loss and damage since 1991.

The close link between adaptation and the loss and damage debate sometimes leads to confusion. Despite theoretical debates and barriers to addressing loss and damage in practice, most Latin American countries reported data on economic and non-economic loss and damage in their updated NDCs.

According to the results of the Transparency Index, four countries comply with the reporting provisions of the ETF (with an index score of 4) and have information

related to the efforts to avoid, minimize and deal with loss and damage in the national documents consulted to evaluate the adaptation component.

As previously mentioned, the analysis and reporting of loss and damage is incipient in the region. There is a significant challenge in terms of collecting, generating, and using the scientific knowledge necessary for its assessment. Consequently, each country should evaluate its unique circumstances, pinpoint the sectors expected to face the most severe impacts in the forthcoming years, identify the essential information needed, and explore opportunities for international support.

Measuring loss and damage caused by climate hazards is a useful tool to assess the effectiveness of adaptation actions. It is necessary to generate capacities that enable countries in the region to assess loss and damage, develop strategies to address them, and create institutional arrangements to facilitate the implementation of such actions.



²⁸ <https://public.wmo.int/es/estado-del-clima-en-am%C3%A9rica-latina-y-el-caribe-0>



2.4. Link Between the ETF and Long-Term Climate Strategies

With the purpose of improving climate efforts and limiting the increase in temperature, Article 4, paragraph 19 of the Paris Agreement urges the parties to “strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”²⁹

More recently, Parties that have not yet done so were urged to communicate LTSs at COP26 and COP27, in pursuit of a just transition to net-zero emissions by or around mid-century. They were also encouraged to consider a long-term planning dimension of their resilience.

In decision CMA.3 of the Glasgow Climate Pact, paragraph 35 states “the importance of aligning nationally determined contributions with long-term low greenhouse gas emission development strategies”³⁰.

The LTS is a useful tool to increase GHG reduction efforts because it facilitates the planning of a strategic route to maintain economic growth and development in a low-carbon scheme. Long-term planning is already used in some countries in the region, especially associated with the energy sector. However, its development entails important challenges in terms of institutional capacities, articulation of actors, available information, among others.

The LTS establishes a long-term vision and identifies the transformations that must take place to achieve said vision. It must also be based on science and, due to its temporality, it must be periodically updated to remain relevant. Given its characteristics as a planning instrument, its main role is to guide the establishment of short- and medium-term climate goals, both at the mitigation and adaptation levels. In the LAC region, countries have been pioneers in combining both dimensions in their long-term planning exercises³¹.

²⁹ Paris Agreement, 2015, https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf

³⁰ Glasgow Climate Pact, 2021, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26>

³¹ <https://publications.iadb.org/publications/spanish/viewer/Planificacion-de-la-adaptacion-a-largo-plazo-en-America-Latina-y-el-Caribe.pdf>

Table 2 LTSs Published in the Region

Country	Name
 Argentina	Long-Term Resilient Low-Emissions Development Strategy by 2050 November 6, 2022
 Belize	Low-emission development strategy and action plan: Belize May 3, 2023
 Chile	Chile's Long-Term Climate Strategy - Path to Carbon Neutrality and Resilience by 2050 November 3, 2021
 Colombia	E2050 Colombia: Colombia's Long-Term Climate Strategy E2050 to Comply with the Paris Agreement November 12, 2021
 Costa Rica	National Decarbonization Plan 2018 - 2050 December 12, 2019
 Guatemala	National Strategy for Low-Emissions Development July 6, 2021
 Mexico	Mexico's Medium-Term Climate Change Strategy 16 November 2016
 Uruguay	Long Term Climate Strategy for Low Greenhouse Gas Emissions and Climate Resilient Development December 28, 2021

Source: UNEP 2022, technical assistance to LAC countries in the formulation and implementation of their LTSs

As shown in Table 2. LTSs Published in the Region, to date seven countries in Latin America and the Caribbean have communicated their LTS to the UNFCCC. Despite the lack of standardized methodologies, each country has developed its LTS through a particular process, while striving to adhere to the overarching guidelines established by the UNFCCC. Despite this diversity, a comprehensive review and analysis of the submitted documents revealed four crucial phases in their development process: a) delineating the scope of the LTS, b) analyzing the national context, c) setting goals, and d) aligning with the 2050 vision.

In the first step, the definition and scope of the LTS should be made clear. As a climate policy instrument, the LTS should integrate sectoral instruments, different levels of government and all types of actors

in a common vision for 2050, based on previously established commitments.

Next, an examination of the country's context takes place, encompassing not only GHG emissions but also the social and economic factors that could influence the achievement of a just and resilient transition. Additionally, it is important to consider the national climate change policies, institutions, and regulations, as well as the climate change reports that the country has developed.

Once the country's starting point is established, the third step would be to design a vision of where the country expects to be by 2050, by establishing long-term objectives based on the national context. Finally, the fourth step involves developing the elements that enable the LTS to be upheld until 2050, that is,

ensuring that human, financial, legal and technical resources are available to monitor its implementation over a long period of time.

Figure 19. Priority Elements for LTS Formulation includes details regarding aspects countries should consider at each of the key steps in the LTS formulation process, so it may become a national instrument of climate policy that is implemented at all levels of government and society.

As mentioned above, the main role of the LTS is to guide the setting of short- and medium-term climate goals. This requires a transparent LTS that considers, in each of its key steps, the ETF principles and requirements in terms of mitigation and adaptation. These are necessary inputs for the definition of the scope, context and objectives (e.g., the NGHGI, adaptation targets, results of the monitoring of mitigation and adaptation actions, etc.). Figure 20. Recommendations for the LTS, presents elements to be considered for the formulation or update of a transparent LTS.

Figure 19. Priority Elements for LTS Formulation

 <p>Definition of the scope and elaboration process of an LTS in accordance with the country's priorities</p>	<ul style="list-style-type: none"> • Conceptualize the LTS as a national policy umbrella tool that aligns a long-term vision • Establish the LTS's scope through a transversal and multilevel process • Take sectoral policies and the legal framework into consideration
 <p>Definition of the country's long-term objectives, i.e., carbon neutral, climate neutral, zero emissions</p>	<ul style="list-style-type: none"> • Establish an aspirational target and a tangible target that enable adequate compliance • Identify sectoral commitments and commitments at the subnational level • Alignment to national policies and programs
 <p>Formalizing of the temporary governance and sustainability structures to be implemented under the LTS</p>	<ul style="list-style-type: none"> • Assign LTS implementation and monitoring responsibilities in a legal or statutory manner • Establish an implementation budget (no policies are possible without a budget) • Involve relevant actors from different sectors who are able to support permanence and long-term sustainability
 <p>Definition of progress monitoring linked to NDC targets</p>	<ul style="list-style-type: none"> • The first objective will be to fulfill the NDC, which constitutes the LTS's short term objective • Establish a simple tool to identify progress in order to develop a process for the continuous improvement and monitoring of the LTS
 <p>Incorporation of transversal topics, such as communication, gender, just transition and sustainable development</p>	<ul style="list-style-type: none"> • In order to ensure the success of the LTS, a holistic participation of all actors is needed, so a communication strategy must be included • As a development tool, it must incorporate gender, climate justice, equity and development elements

Source: UNEP 2022, technical assistance to LAC countries in the formulation and implementation of their LTSs

Figure 20. Recommendations for the LTS

 <p>Include National Adaptation Plans in the decarbonization vision</p>	<ul style="list-style-type: none"> • Implement a national policy instrument that is not only based on mitigation • Harness adaptation actions that help mitigation (e.g., nature-based solutions) • Contribute to resilience and vulnerability reduction
 <p>Establish a baseline and sectoral goals with respect to key categories included in BURs, NDCs or NIRs</p>	<ul style="list-style-type: none"> • Establish a baseline in already filed reports (BURs, NDCs or NIRs) when they exist • Align sectoral goals with key inventory categories • Encourage the use of the 2010 baseline as point of reference for mitigation targets
 <p>Establish objectives and actions to be implemented at the local level</p>	<ul style="list-style-type: none"> • Remember to establish 2030 and 2050 mitigation goals; country standards are 45% for 2030 and carbon neutrality for 2050 • Clarify whether carbon neutrality is reached through mitigation actions and whether it includes emissions compensation (balance with absorptions and purchases of certified emissions reduction) • Actions are carried out within a territory and must begin at the local level
 <p>Map key stakeholders and establish responsibilities and institutional arrangements, as well as their linkage to the national legal framework</p>	<ul style="list-style-type: none"> • Identifying key stakeholders, both institutional and from academia and civil society • Foster and establish the necessary inter-agency arrangements • Enshrine arrangements and responsibilities through the national legal framework
 <p>Institute a monitoring mechanism for the targets in which a review and update are conducted in a 5-year timeframe, in alignment with NDCs</p>	<ul style="list-style-type: none"> • Establish a mechanism to monitor LTS objectives and targets (MRV or not) • LTS review and update period must be based on the monitoring mechanism and coincide with the NDC's 5-year period
 <p>Define the financial commitments of institutions and funding mechanisms, economic instruments, etc.</p>	<ul style="list-style-type: none"> • Enshrine in the LTS any possible financing or funding mechanism for targets and objectives • Establish institutional arrangements and amend national legal frameworks to specify the financial responsibilities of public and private bodies regarding actions to achieve objectives and targets

Source: UNEP 2022, technical assistance to LAC countries in the formulation and implementation of their LTSs

03



OPEN DATA, DIGITALIZATION AND OPPORTUNITIES IN THE CLIMATE CHANGE AGENDA





3.1. Methodology



3.2. Comparative Analysis



3.3. Interpretation of Governance Structures Mapping



3.4. Climate Information Reporting Sources and Open Data



3.1. Methodology

In recent years, climate governance in Latin America and the Caribbean has consolidated through the formation of dedicated teams in ministries of the environment, other ministries or other bodies charged with increasing climate action capacity, in the hopes of increasing institutional strength in this area. A good governance system enables the creation of a structure where current climate data can feed into relevant and effective climate action policies. Thus, its constant updating is essential. The data can be used to generate information to understand countries' GHG emissions and identify their main threats through, for example, vulnerability maps. Similarly, it can be used to promote the development of tools that feed into documents like National Communications, NDCs and long-term planning exercises, such as LTSs.

This section presents a diagnosis of the climate data governance potential from an open data perspective, with a focus on exploring the best mechanisms so that they may be shared at the national level.

Understanding the internal workings of the different government agencies within countries, their synergies with strategic allies in producing the required data for reporting under the mechanisms of the Paris Agreement, and the integration of this process with their open data

policies is crucial. This serves to shorten timelines, enhance data quality, reduce costs associated with UNFCCC reporting and incorporate data into the formulation of local public policies. Additionally, it is relevant to improve transparency and access to information for citizens and encourage their use of said data.

In order to examine open data governance, transparency and climate data in all its complexity, this analysis aims to identify relevant government actors, strategic allies and stakeholders at the national level, and gather information on the regulations and policies on which said governance is built in six countries of the region³².

To achieve this goal, a series of sequential tools are used to identify the main laws and sectors involved in the subject under examination, as well as the methodologies to build collaborative open data processes to guarantee greater and better governance of climate data.

The sources of information used for gathering regulatory data, creating maps and analyzing them include:

³² Barbados, Chile, Colombia, Dominican Republic, Panama and Uruguay

Climate governance and access to data analysis in the six countries.

Review of official documents: reporting documents to the UNFCCC, international agreements and local regulations on climate change, especially with a focus on the intersection of access to public information and open data.

Review of the comparative transparency and open data regulations in the countries that are part of the study: Law on Access to Public Information, Open Data Regulations, Law on Transparency and the like.

Information gathering of the general state of data openness based on the Global Data Barometer³³ and the standards of the Open Data Charter Guide for Using Open Data to Advance Climate Action³⁴, as well as each country's web portals.

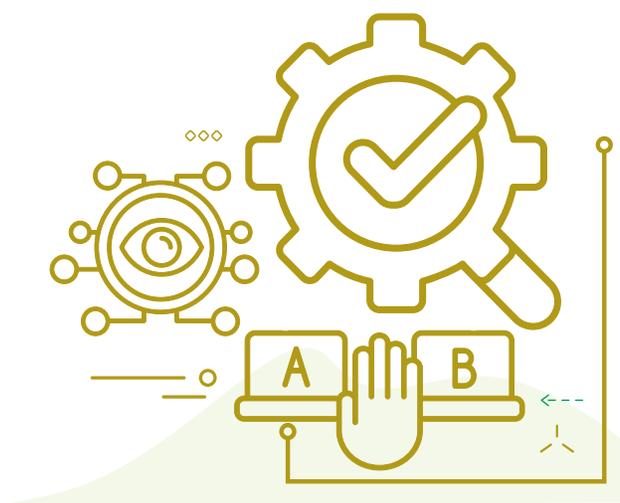
Review and analysis of international indices.

Interviews with those responsible for the implementation of open data policies (open data, open government, transparency, public innovation, or similar office) in the countries that are part of the study, and with environment and climate change authorities in the cases in which contact was possible.

Review of news stories from different media, including alternative information media, local blogs and social networks.

This section analyzes three aspects in each country: (i) the regulatory context on climate change with a focus on access to public information and open data, (ii) governance structures, and (iii) the general state of data openness and climate information. Finally, we present the comparative tables and conclusions for each of the aspects in the six countries, as well as general conclusions, challenges and recommendations.

In order to properly assess regulatory quality, based on international standards on the subject, this report uses the evaluation methodology proposed by the Right to Information (RTI) Rating developed by the Center for Law and Democracy and by Access Info. This index seeks to establish parameters to analyze the robustness of the regulatory text, based on seven categories³⁵.



³³ <https://globaldatabarometer.org/>

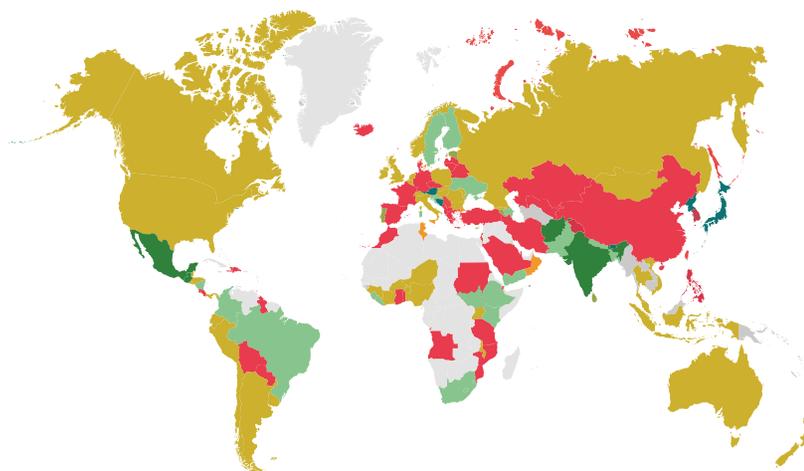
³⁴ <https://open-data-charter.gitbook.io/open-up-guide-using-open-data-to-advance-climate-a/>

³⁵ Right of Access, Scope, Requesting Procedures, Exceptions and Refusals, Appeals, Sanctions and Protections, and Promotional Measures. <https://www.law-democracy.org/live/rTI-rating/global/>

Figure 21. Map of RTI Rating Scores, Countries and Criteria

The following information is a walk-through of how the scores are obtained

Category	Max score
Right of access	6
Scope	30
Requesting procedures	30
Exceptions and refusals	30
Appeals	30
Sanctions and protections	8
Promotional measures	16
$\Sigma = 150$	



Source: RTI website

Information on the existence of commitments related to transparency and access to information in the Open Government Partnership (OGP) action plans was also collected to understand the scope of the actions taken that go beyond regulatory obligations. In this regard, we considered the latest action plan in each country. It is worth adding that, except for Barbados (a country that is not a party to the OGP), the remaining five countries have included commitments of this nature in their plans. Some of these include: transparency in finance, access to public information on public procurement, science and technology, legislative transparency, agricultural transparency, open budgets, open contracting and transparency in public infrastructure, and standalone transparency portals.

The second aspect of this analysis evaluated the links between the actors, strategic allies (domestic and international) and interest groups that are part of climate data governance in each of the countries. Using the stakeholder mapping tool, we identified and created a quick reference of the primary actors, strategic allies, and stakeholders. We went beyond simply listing them and inquired about their capabilities and interests. This tool also enables the identification of common ground, alliances, and possible coalitions between them, placing them in the action spaces in which they operate³⁶.

³⁶ Democratic Change Foundation (2016). "Guide to make a stakeholder map - Conceptual and methodological bases". Available in: <http://cambiodemocratico.org/portfolio-item/guia-para-confeccionar-un-mapeo-de-actores/>

The third aspect of the analysis is based on the information collected about the general state of data openness from the Global Data Barometer³⁷, and the standards of the Open Data Charter Guide for Using Open Data to Advance Climate Action³⁸, as well as the evaluation of the countries' open data portals. This analysis is complemented by the review of sources in which the countries that are part of the study report progress

on climate change (e.g., Biennial National Communications Report, NDC, LTS, national climate change laws, NGHGI, etc.).

This document offers a comprehensive analysis of all these elements, providing a deeper understanding of the state of climate information openness, the interconnections, and the opportunities and challenges.



3.2. Comparative Analysis

Access to Public Information

Based on a comparative reading of the countries analyzed, we observe an almost unanimous existence of rules of national scope that regulate the right of access to information. Although most of the laws were conceived from a passive transparency approach, the five regulations establish active transparency mechanisms, with different scope levels. This data is particularly relevant when it comes to understanding the articulation between the obligations of active transparency with open data policies.

Apart from the Colombian standard, which included a definition of open data in its original text, the rest of the countries have not contemplated specific provisions to make information available in open formats in their access to information laws. Rather, it was complementary regulations

that introduced open data concepts and practices to ongoing transparency policies, as the cases of the Dominican Republic and Uruguay show.

Open Data

Regarding the existence of regulatory frameworks dedicated to the implementation of open data, the current situation in the countries analyzed is heterogenous. Different scenarios are observed: from the implementation of policies without a specific regulation (Chile), national regulations (Colombia) or executive decrees (Panama and the Dominican Republic), to the non-existence of policies or regulations on the matter (Barbados).

³⁷ <https://globaldatabarometer.org/>

³⁸ <https://open-data-charter.gitbook.io/open-up-guide-using-open-data-to-advance-climate-a/>

Table 3. Comparative Regulatory Analysis on Transparency and Data

Country	Has regulations on access to public information	Has regulations on open data	Has regulations on personal data protection
 Barbados	No	No	Yes
 Chile	National law N°20.285	No	National law
 Colombia	National Law on Transparency and Access to Public Information, No. 1712, 2014	National law	National law
 Panama	Law 6 for Transparency in Public Management 2002 ³⁹	Executive decree / resolution	National law
 Dominican Republic	National law N° 200 ⁴⁰ of 2004	Executive decree	National law
 Uruguay	National law N° 18.381 of 2008	National law	National law

Source: Own elaboration



3.3. Interpretation of Governance Structures Mapping

Access to Public Information and Open Data

Governance structures present very heterogeneous characteristics, both with respect to the actors involved and to their powers.

One shared characteristic among the five countries with regulations on access to information is the existence of robust bodies that concentrate the functions

of enforcement authorities and legal guarantors. Regarding active transparency obligations, this translates into the establishment of publication guidelines applicable to all obligated entities, even when the publication is carried out in a decentralized manner. It also has an impact on the coordination of information focal points, a role present in the regulations of countries such as Panama and the Dominican Republic.

³⁹ <https://presidencia.gob.do/sites/default/files/statics/transparencia/marco-legal/leyes/Ley-200-04.pdf>

⁴⁰ <https://www.antai.gob.pa/wp-content/uploads/2015/04/Ley-6-de-22-enero-2002.pdf>

With the introduction of open data policies, governance structures have adapted in uneven ways. In some cases, the functions of the bodies in charge of access to information were expanded through regulatory instruments on open data. In countries like Chile, on the other hand, data policy was implemented de facto, leaving its powers in the hands of the Digital Government Division. In this case, beyond the different organizations involved, the need to formalize open data governance becomes evident. Although the differences between these models are not decisive

when it comes to articulating policies for access to information and open data, it is worth noting the particular challenges that these types of governance imply.

Finally, one of the most interesting aspects to highlight is the inclusion of non-governmental actors in open data governance models. Instances like Uruguay, where the Advisory Council was established, or Panama, which set up the Open Data Working Group, represent positive steps to promote the co-creation of public initiatives and the reuse of data.

Table 4.

Comparison of the Governance Structure Concerning Transparency and Open Data in the Analyzed Countries

Country	Has access to public information enforcement authority	Has open data implementation authority	Type of governance of access to public information and open data	Presence of non-governmental actors
 Barbados	No	No	No	No
 Chile	Yes	No	Decentralized	No
 Colombia	Yes	Yes (Ministry of Information and Communication Technologies)	Decentralized	No
 Dominican Republic	Yes	Yes (National Open Data Commission)	Centralized	National Open Data Commission
 Panama	Yes	Yes (National Authority for Transparency and Access to Information)	Centralized	Open Data Working Group
 Uruguay	Yes	Yes (AGESIC)	Decentralized	Advisory Council

Source: Own elaboration

Environment and Climate Change

As there are no distinct regulations governing access to environmental information, but rather general environmental legislations that include such provisions, most of the countries analyzed do not include in their structure entities specifically dedicated to providing information to the public.

However, some of the regulations that address access to environmental information and the creation of information systems

place the obligation of managing and disseminating the relevant information at the head of their respective ministries of the environment.

Of the countries analyzed, Colombia, Chile, Panama and Uruguay show environmental information governance processes, with some of them placing particular emphasis on climate data.



3.4. Climate Information Reporting Sources and Open Data

General State of Data Openness

As explained, the strategies for publishing active transparency information and submitting requests vary from country to country. Indeed, while some opted to centralize it in a single portal, others delegated in the obligated entities the power to make the information available on their own sites.

However, there is unanimous agreement when it comes to centralizing the open data catalog in a single repository. Nevertheless, despite efforts to standardize the formats of the published data, certain organizations persist in launching their own data portals. This underscores the significance of the work conducted by open data teams in identifying these initiatives and replicating

data catalogs within centralized portals. These initiatives are particularly crucial in the context of climate change, since many countries have entities and repositories containing information that is not widely shared, thus limiting its use and dissemination.

Although some resources to access data on climate change in the countries studied have been identified, the supply continues to be limited compared to the information available in other places, as exemplified by Chile's extensive database. It is worth noting the efforts undertaken by some countries, such as Uruguay and Panama, to map and replicate these informational resources in open data repositories.

Regarding data availability and format, the scores obtained in the Global Data Barometer reveal varying levels of progress. In line with the findings of the metric, the informants have expressed the need to work on a series of enhancements, such as

standardization of formats, improvement in the quality of published data and metadata, process automation, and interoperability between the different data-producing areas, among other aspects.

Table 5. Comparison of the General State of Data Openness

Country	Open data portal	Global Data Barometer results	Publishes climate change data
 Barbados	Does not have one	N/A	No
 Chile	Centralized	53	Yes
 Colombia	Centralized	54	Yes
 Dominican Republic	Centralized	35	Yes
 Panama	Centralized	35	Yes
 Uruguay	Centralized	55	Yes

Source: Own elaboration

Environment and Climate Change

According to the data collected at the regulatory level in each of the countries analyzed in this report, there is an institutionalization of the agenda evidenced by the regulations and institutions directly related to climate change in all of them, although at different levels.

Panama, Uruguay and the Dominican Republic stand out in the construction of governance based on a broad regulatory framework, which includes the proclamation of a climate change law and the formation

of inter-ministerial councils that coordinate efforts with support from various sectors, especially for the implementation of national programs and investments in climate change mitigation and adaptation. Colombia and Chile have similar structures, as well as ambitious climate change instruments that substantiate their leadership in the matter. In the case of Barbados, the information available on the regulatory framework was scant, making a more in-depth analysis in this regard impossible.

Table 6. Summary of Climate Governance in the Countries Analyzed, with a Focus on Climate Change Laws, Inter-Ministerial Entities and Sustainable Finance Innovations

Country	Has climate change law	Has an inter-ministerial council on climate change	Has experience with innovative sustainable finance instruments
 Barbados	No	Informal	Yes Debt-for-nature swap (2021)
 Chile	Yes Climate Change Framework Law 21,455 ⁴¹ published on June 13, 2022	Yes Inter-ministerial Technical Team for Climate Change or ETICC	Yes Green bonds
 Colombia	Yes Law No. 1,931 of 2018, and Climate Action Law No. 2,169 in 2021 ⁴²	Yes Intersectoral Commission on Climate Change	Yes Green bonds, carbon tax
 Dominican Republic	No Bill in progress	Yes National Council for Climate Change and the Clean Development Mechanism (CNCCMDL)	Yes Green bonds
 Panama	Bill in progress ⁴³ National Climate Change Policy (Executive Decree No. 35 of 2007)	Yes National Change Committee Climate Control of Panama (CONACCP) - Executive Decree No. 1 of January 9, 2009	Yes Green bonds
 Uruguay	No ⁴⁴ Law No. 17,283 dated 11/28/2000 Environmental Protection Law	Yes National System of Response to Climate Change (SNRCC)	Yes Sovereign sustainability-linked bond

Fuente: Elaboración propia

The six countries included in the study are engaged in the formulation and preparation of national communications and NDCs pursuant to the technical rigor outlined by the UNFCCC.

With the exception of Barbados, the other five countries have presented biennial reports and strategies. Additionally, they have adopted guiding instruments for

implementation (road maps, action plans, implementation plans), which include the creation of ad hoc coordination mechanisms (working groups and commissions).

The same five countries also have LTSs and some, such as Panama, the Dominican Republic and Uruguay, also have gender and climate change strategies/action plans.

⁴¹ The Climate Change Framework Law establishes the National System of Access to Information and Citizen Participation on Climate Change. This system is administered and coordinated by the Ministry of the Environment with support from other entities. It seeks to encourage and facilitate citizen engagement in the development, revision, and monitoring of climate change management instruments.

⁴² In terms of information, the norm creates the National Information System on Climate Change that will provide transparent and consistent data and information over time for decision-making related to climate change management. The National Registry for the Reduction of Greenhouse Gas Emissions is established within this system as a vital instrument to manage information on GHG mitigation initiatives.

⁴³ The draft Framework Law on Climate Change is currently under review by the General Assembly of Deputies. Panama's National Climate Change Policy updated to 2050 is under development.

⁴⁴ Resolution No. 458/022 Designation of agencies responsible for active and passive transparency by the Ministry of Environment.

Table 7. Comparative Analysis of Standards, Sources and Reports on Climate Change

Country	UNFCCC ⁴⁵	Kyoto Protocol ⁴⁶	Paris Agreement ⁴⁷	Escazú Agreement ⁴⁸	National Regulatory Framework on Climate Change	National Communication ⁴⁹	BUR ⁵⁰	Nationally determined contribution ⁵¹
Barbados 	Ratification 1994	Accession 2000	Ratification 2016	NA	NA	NC1 Oct 30 2001 NC2 Oct 18 2018	NA	iNDC 2015 First NDC (revised version) 2021
Chile 	Ratification 1994	Ratification 2002	Ratification 2017	Accession 2022	Creation of the Ministry of the Environment: 2010 Permanent Presidential Advisory Commission on Climate Change: 2018 Approval of the Framework Law on Climate Change: 2022	NC1 Feb 8, 2000 NC2 Oct 24, 2011 NC3 Nov 16, 2016 NIR May 19, 2017 NC4 May 31, 2021	BUR1 Dec 10, 2014 NIR Feb 5, 2015 BUR2 Apr 21, 2017 (original version: Nov 12, 2016) NIR May 19, 2017 BUR3 (includes technical annex on REDD+) Dec 3, 2018 Modified REDD+ Technical Annex Aug 9, 2019 NIR Mar 18, 2019 BUR4 Jan 18, 2021 NIR Feb 19, 2021 BUR5 Dec 26, 2022	iNDC 2015 NDC 2020
Colombia 	Ratification 1995	Ratification 2001	Ratification 2018	Ratification 2022	Ministry of Environment: 1993 National Climate Change System: 2016 Carbon tax: 2016.	NC1 Dec 18, 2001 NC2 Dec 7, 2010 NC3 Sep 12, 2017	BUR1 (includes technical annex on REDD+) Dec 11, 2015. Modified REDD+ Technical Annex Oct 18, 2016 BUR2 (includes technical annex on REDD+) Dec 28, 2018 NIR Apr 11, 2019 BUR3 Jan 14, 2022 NIR Jun 23, 2022	iNDC 2015 NDC 2020

⁴⁵ https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en

⁴⁶ https://treaties.un.org/pages/showDetails.aspx?objid=0800000280021a16&clang=_en

⁴⁷ https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en

⁴⁸ https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-18&chapter=27&clang=_en

⁴⁹ <https://unfccc.int/non-annex-I-NCs>

⁵⁰ <https://unfccc.int/BURs>

⁵¹ <https://unfccc.int/CDNREG>

3. OPEN DATA, DIGITALIZATION AND OPPORTUNITIES IN THE CLIMATE CHANGE AGENDA

Dominican Republic 	Ratification 1998	Accession 2002	Ratification 2017	Signature 2018	National Council for Climate Change and Clean Development Mechanism 2008 National Development Strategy 2030 National Climate Change Policy 2016 High-Level Inter-Institutional Commission for Sustainable Development 2016	NC1 Jun 4, 2003 NC2 Dec 17, 2009 NC3 Nov 14, 2017	BUR1 May 21, 2020	BUR1 May 21, 2020 iNDC 2015 NDC 2020
Panama 	Ratification 1995	Ratification 1998	Ratification 2016	Ratification 2020	Single Text of Law No. 41 of July 1, 1998 Executive Decree No. 135 of 2021 regulating adaptation to global climate change Executive Decree No. 100 of October 20, 2020 regulating global climate change mitigation	NC1 Jul 20, 2001 NC2 Mar 2, 2012 NC3 Oct 19, 2018	BUR1 Apr 18, 2019 (1st presentation Dec 14, 2018) BUR2 Mar 27, 2021 NIR Jun 17, 2021	iNDC 2016 NDC 2020
Uruguay 	Ratification 1994	Ratification 2001	Ratification 2016	Ratification 2019	Framework Law on Climate Change 2000 National System of Response to Climate Change 2009 Ministry of Environment 2020	NC1 Oct 15, 1997 NC2 May 11, 2004 GHG inventory May 11, 2004 NC3 Nov 18, 2010 NIR Nov 18, 2010 NC4 revised Mar 7, 2017 (1st presentation: Oct 28, 2016) NIR revised Mar 7, 2017 (1st presentation: Oct 28, 2016) NC5 Dec 31, 2019	BUR1 Dec 7, 2015 BUR2 Dec 29, 2017 BUR3 Dec 31, 2019 BUR4 Dec 31, 2021 NIR Jan 11, 2022 (1st presentation: Jan 1, 2022)	iNDC 2015 NDC2 2022

Source: Own elaboration

04



DISCUSSION AND CONCLUSIONS





4.1. Challenges



4.2. Recommendations



4.3. Opportunities





4.1. Challenges

The countries in Latin America and the Caribbean have gradually built their experience to meet the reporting requirements of the system preceding the Paris Agreement, which includes Biennial Update Reports. Although the ETF was established on the basis of the existing reporting and review processes under the Convention, it introduces additional responsibilities regarding the MRV and M&E systems that countries have implemented.

The desk research that was carried out for this report and, in particular, the interviews conducted with officials from each country indicate that, despite the various governance models identified, there are problems that are common to all countries.

The main challenge is to move from fragmented processes to robust transparency systems that make it possible to monitor progress in terms of climate action, along with climate finance, the incorporation of technology and capacity building. However, each country must establish its own path toward climate transparency, which implies a comprehensive planning exercise involving all relevant stakeholders and focusing not only on reporting components (adaptation, mitigation and support) but also on the transversal elements (governance, participation and gender), in order to foster the sustainability, appropriation and integrity of the transparency systems.

The various levels of implementation of openness and transparency policies also provide clues when proposing corrective

actions. Below are the main common challenges identified:

- Lack of climate information in open formats:**

in many cases, the information that is reported to comply with international obligations regarding climate action is not found in open formats. This results in a loss of public value because governments make enormous efforts to generate the information necessary for reporting and meeting international climate obligations and, when this data is not presented in an open format, it becomes inaccessible for reuse by the general public.

- Lack of coordination in transparency, environment and open data policies:**

in some cases, there is a dispersion of initiatives and bodies responsible for these policies, which can translate into lack of coordination, little definition of the specific functions of each organism and disarticulation of the published information. Similarly, there is a proliferation of open data and climate information platforms and portals, which makes it difficult to access them and hinders their sustainability.

- Reuse of data:** there is a consensus among those interviewed about the need to generate strategies so that non-governmental actors can reuse the data and information that is published.

Promotion of a user community: linked to the first challenge, it is a priority to articulate opportunities for exchange and generate capacities among the data community, both internally and externally.

Awareness: it is essential to disseminate the relevance of the open data agenda and provide technical resources to government entities, beyond the specific areas that lead open data strategies.

Lack of interoperability: due to coordination challenges, some respondents have emphasized the need to intensify efforts to generate greater interoperability between information systems and to automate processes. Likewise, the Open Data Charter promotes the idea that the interoperability of people is just as important as the interoperability of data. This is key both within public institutions (to break down disconnected information silos and promote collaboration), and in external alliances between different sectors.

Lack of data standardization and quality: although there are ongoing initiatives to provide common guidelines and improve quality processes, it is necessary to deepen and automate mechanisms that ensure quality standards in the generation and publication of data. It is important to keep this in mind in every part of the data lifecycle: production, processing, cooperation, storage, publication, and reuse.

Promote the generation of added value: the potential of information and data must be used to add value in the provision of public and private services, as well as in decision-making processes, in line with one of the principles of the Open Data Charter.

Interaction with non-governmental actors that generate data: it is a priority to generate strategies to standardize and include relevant data generated by the private sector in open data plans.

Regulation update and harmonization: not all countries have the necessary regulations that make up a transparent legal system. In some cases, although the regulations exist, they have not been updated to incorporate technological advances and international good practices.





4.2. Recommendations

After analyzing the cross-cutting issues and applying the Transparency Index, we identified the primary areas in which technical capacity development and resource allocation are needed to meet the reporting requirements of the ETF. However, the number of issues poses a huge challenge for LAC countries. Therefore, it is necessary to develop a planning process that allows them to adjust their existing MRV and M&E systems and gradually consolidate a transparency system according to the decisions put forth by the ETF.

As an initial response to the analysis, it can be established that no climate governance structure is inherently superior to its peers, since, as mentioned before, they respond to different contexts and previous institutional arrangements in each of the countries. In all cases, it is important to ensure that the authorities designated to lead the climate agenda have the necessary resources and legitimate authority to carry out their functions, making decisions based on science. Additionally, it must be ensured that there are clearly differentiated and complementary responsibilities between the parties, especially when there is a combination of levels of representation (ministerial and presidential), to facilitate a harmonious and efficient execution of functions.

Regarding the degree of representation, it is normally convenient for it to be concentrated in a few institutions when there are previous relationships or institutional agreements between them that have worked for other purposes. However, to establish a genuinely

comprehensive climate governance system, it is essential to forge numerous institutional agreements with all relevant stakeholders. Creating a committee and seeking consensus or coordination among all parties may require more time than making individual bilateral agreements. Nevertheless, this approach can offer efficiencies by bringing all stakeholders to the table simultaneously. The inclusion of non-state actors within climate governance structures can be facilitated through the establishment of consultative committees, backed by scientific expertise for decision-making, that include local academia and are supported (or accepted) by the private sector and civil society.

Regarding participation for climate transparency, institutional arrangements at the highest level can contribute significantly to the construction of inclusive systems. Likewise, decision-making bodies should try to ensure that all groups in society are represented, with the representation of each group being more or less proportional to its share of the general population. Barriers to participation need to be understood and assessed to identify effective evidence-based approaches that can be scaled up and institutionalized through policies, legislation, processes and mechanisms such as the NDCs and LTSS. Institutional arrangements, mechanisms and discussion platforms between the different actors are key to guarantee the participation and inclusion of all.

As for the gender component, social institutions and development organizations

4. DISCUSSION AND CONCLUSIONS

continue to produce gender-differentiated results that may be restrictive or disadvantageous for women, which means that we must continue to insist on accountability as a priority in climate change management and policy. To have gender-sensitive institutional change means to make gender-equitable forms of social interaction a routine and to challenge the legitimacy of forms of social organization that discriminate against women.

In promoting gender equality, governments must enact binding laws to ensure that discriminatory rules and practices based on gender are eliminated. Greater participation of women in decision-making bodies is more likely to have an impact through the adoption of policies that benefit women and promote gender equality. Gender-based quotas in decision-making bodies are one way to increase women's participation and make it possible to address the institutional and systemic barriers that still obstruct women's equal access to political participation. However, quotas are often insufficient to ensure equality and must be combined with other measures to create an enabling environment for women's participation. Still, women may not benefit from climate action, unless community-led, institutional, local and informal arrangements are designed with the specific and often differentiated needs, roles and responsibilities of men and women in mind.

Gender-sensitive M&E is one way to help ensure that programs are designed to be gender-sensitive and able to measure progress and achievements in addressing gender inequalities in climate change. Institutional accountability and transparency systems for gender equality and climate outcomes and impacts need to be strengthened, holding both funding and implementing agencies accountable for the gender-equality impacts of their projects. Collecting information on the main gender

differences and trends that influence inequalities in access and use of natural resources in the different contexts analyzed is recommended. Likewise, it is suggested to use mixed methods to monitor and evaluate social and gender inequalities in access and use.

Additionally, women empowerment indicators aligned with the expected results of the project or intervention should be included and impacts on women's participation in decision-making should be evaluated. It is important to collect information on women and men. A key point is to foster greater collaboration and transparency among financial mechanisms around gender mainstreaming processes and procedures to take advantage of knowledge sharing and learning opportunities, leadership and messaging, and coordination and simplification of gender mainstreaming guidelines. Government plans and projections, regardless of the issues, are meaningless without dedicated attention to their implementation through public budgets and spending, which also provide incentives and regulatory frameworks for private sector investment and involvement.

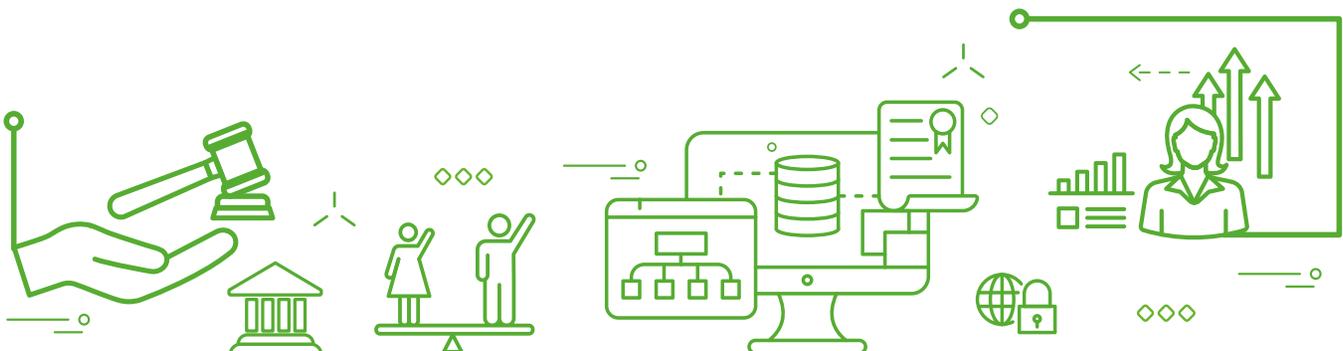
On the other hand, for the mitigation and adaptation components, a planning process that allows each country to prioritize, adjust and improve their MRV and M&E systems to achieve the transparency standard established by the Paris Agreement should be developed. The first step in this process is to detail what is already available and communicated through different reporting instruments and to identify the missing elements and the implications of their incorporation into institutional arrangements and MRV, M&E or other information systems used in climate action reporting.

In order to improve transparency systems regarding mitigation, countries are encouraged to focus their efforts on two elements: improvement of NGHGs and the establishment of processes, arrangements and information for monitoring NDCs. Regarding NDC monitoring, countries should consider the three accounting steps established by the UNFCCC and adjust the transparency systems accordingly to respond to the temporary requirements established for the NDC progress report. The process begins when the country provides transparent information on its NDC. Then, every two years, the BTR reports its implementation progress and, once the NDC period is over, provides an evaluation indicating whether the targets have been achieved. Information submitted in each BTR (including the BTR containing the country's assessment of NDC achievement) is reviewed for consistency with reporting requirements. Every five years a new NDC is communicated and the process is repeated.

Establishing NDC monitoring indicators depends on how the targets were formulated. For annual-type targets, the indicators may include net GHG emissions and removals (t CO₂e) in the base year, the reporting year, and the year of achievement of the target, or emissions reduction (t CO₂e). For targets related to GHG emission reductions compared to a reference scenario, the indicators may include net GHG emissions and removals (t CO₂e) for the reference scenario, the values of the emissions growth drivers (e.g., GDP, population, etc.) and current emissions below the reference level.

Existing experiences and systems, such as the NGHGI and MRV arrangements, serve as the basis for the development of the necessary mechanisms to monitor progress and compliance with NDCs. Therefore, the recommendation for the definition of indicators is to start with the ones already established in existing MRV systems and those used to monitor the SDGs, and then identify any additional indicators needed. Although indicators help to have a better understanding in the monitoring of objectives and targets, they also have limitations (the information provided by indicators depends on the quality of data used and they cannot explain the result by themselves), so it is recommended to establish processes, protocols, guides and resources for analysis and monitoring.

Regarding adaptation, a significant challenge in the region is the need for highly-skilled technical experts who can develop and implement robust transparency systems. Achieving this requires the formulation of strategies that go beyond training workshops and focus on the effective integration of these capabilities within the responsible institutions. To improve transparency systems in terms of adaptation, the suggestion is to focus efforts on defining goals that may be monitored; develop and gradually adjust the monitoring, evaluation and learning systems, in accordance with the principles and functions established by the ETF; and align policy and planning processes at the national level to advance climate resilient development.



4. DISCUSSION AND CONCLUSIONS

To get closer to the reporting standard established by the ETF, there are significant gaps in the establishment of M&E systems to evaluate the impacts and results of adaptation actions. Therefore, countries must continue working on the consolidation of M&E systems as means to monitor and report progress toward NDC compliance. This process should be addressed as part of the National Adaptation Plan process or of the development of NDC monitoring systems (if it includes the adaptation component). To reduce the additional monitoring burden, many countries have compiled an inventory of existing data sources and indicators and have reviewed them for adaptation relevance. Additionally, some countries are connecting adaptation metrics and indicators with the SDGs and the Sendai Framework, due to their transversal nature. This practice is worth replicating as an initial step in the establishment of procedures for monitoring and reporting on adaptation actions.

Initially, the main focus of the systems is to monitor the implementation (processes), instead of evaluating their effectiveness (results). This is a valid first step for countries that are in the early stages of designing their systems and that are still in the process of consolidating the information sources, processes, and institutional arrangements necessary for adaptation monitoring. As systems evolve, the recommendation is to strengthen their focus on adaptation results. This would make it possible to assess whether the national adaptation processes and actions are adequate and effective, for which it would be necessary to develop a combination of metrics that correspond to the different aspects of adaptation.

Based on the challenges identified and the existing consensus on the next desirable steps, along with the diverse practices within each country that could be shared and replicated, the following recommendations are proposed:

Intensify efforts to manage a coordinated data transparency and openness plan that ensures the availability of standardized, indexed and easily accessible data.

Work on processes of standardization and improvement of data quality in accordance with international standards. It is also important to document the entire production process for its institutionalization.

Review the governance models to redefine responsibilities and coordinate harmoniously between the different bodies responsible for the production and publication of data and public information.

Create centralized sites or repositories that facilitate data access for citizens, as well as quality monitoring and updating.

Use standardized tags/labels that enable easy access to environmental information on any portal, thereby enhancing usability and comparability within each country and at regional or global levels.

Carry out regular internal or external evaluations in order to generate information that feeds into the public policy process under a continuous improvement approach.

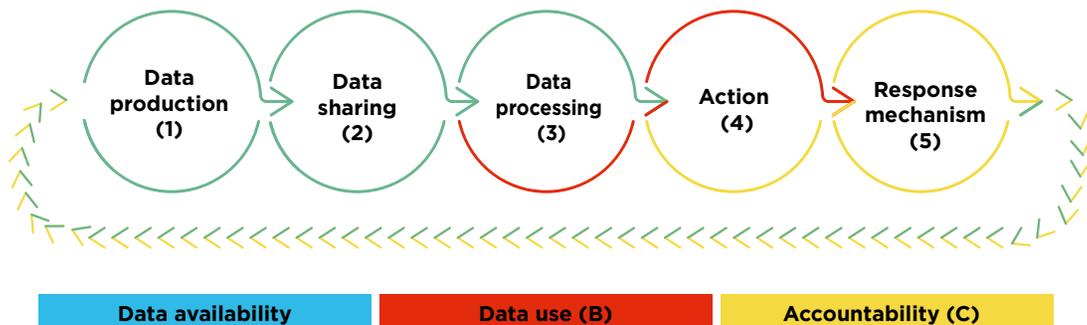
Identify current and potential users to generate demand and build a community. A mapping of the actors and engagement strategies must be carried out to strengthen the data user community. Countries must identify public demand and, ideally, do so from the beginning of the process.

- Promote instances of exchange and training with the user community to foster the reuse of data (e.g., workshops, hackathons and datathons, civic innovation competitions, etc.). It is important to encourage reuse, receive feedback from the public, create synergies and continue to advance in the data opening (closing the feedback loop). API development, as seen in some portals, is key to encouraging and facilitating reuse.
- Develop awareness strategies within the government and generate capacities in public agents.
- Evaluate interoperability models and design pilot tests in small projects that are scalable.

- Work on a review and evaluation of existing regulations in the national context and on their adaptation or update, if needed.
- Include available information on climate change and other environmental issues in the open data governance model. This could strengthen climate governance by expanding access to other actors and strategic allies.

The following graph is a visual representation of the data use and impact cycle:

Figure 22. Data Use and Impact Framework



Source: ODC Medium Blog ⁵²

⁵² <https://medium.com/opedatacharter/rethinking-data-for-accountability-dd3feca00368>

The Impact of Collaboration and Open Data: The Case of Uruguay

The case of Uruguay⁵³ is a good example of collaboration and positive synergies for the opening of climate information. The Ministry of Environment has worked in conjunction with the AGESIC data area, taking into account the Open Data Charter Guide for Using Open Data to Advance Climate Action⁵⁴, to make available information related to climate change action in an open format. Not only were 30 new data sets opened in the climate change data catalogue⁵⁵, but the reuse of these data was also promoted through two open data contests for climate action⁵⁶, in which organizations, students, activists and others presented projects based on the data that the Ministry of Environment had published, working collaboratively on solutions to public challenges. In turn, the government has generated the “NDC progress viewer and other related indicators”⁵⁷, built thanks to the opening of data, in which citizens can consult the NDC objectives and the degree of progress toward each one. It is a tool also used by the public administration itself to monitor progress and generate evidence-based public policies.



⁵³ <https://medium.com/opendatacharter/opening-data-on-climate-change-in-uruguay-2c1264a8bac6>

⁵⁴ <https://open-data-charter.gitbook.io/guia-de-apertura-de-datos-de-cambio-climatico/>

⁵⁵ <https://catalogodatos.gub.uy/dataset?q=cambio+climatico>

⁵⁶ <https://www.gub.uy/ministerio-ambiente/DatosClimaticosAbiertos>

⁵⁷ https://visualizador.gobiernoabierto.gub.uy/visualizador/api/repos/%3Apublic%3Aorganismos%3Ambiente%3Avisualizador_cdn.wcdf/generatedContent



4.3. Opportunities

Data collection, as well as its analysis and review, are key activities for the consolidation of governance. Armed with this information, a country can achieve interoperability of different databases, overlaying earth observation data, GHG inventory, and statistical data to monitor progress toward the goals established under its NDC. This data is a key pillar to disseminate the impact of its actions and the scope of its investments in low carbon and resilient development. In addition, its dissemination allows civil society to take ownership of the issue and demand transparent accountability.

Within the framework of the climate change agenda, the opportunities offered by a data collection, monitoring, reporting and verification system are key to being able to comply with the ETF, and to access innovative financing instruments. The issuance of green bonds, debt-for-nature and/or climate swaps, carbon credits, among other mechanisms, is based on

the existence of robust and centralized information with which to corroborate the achievement of targets, measure impact and monitor government actions. A system like this also fosters better investment decisions in the most appropriate climate instruments based on existing information.

In some countries with best practices, the ongoing impact assessment of each measure or instrument is conducted by various actors within the system. This approach can help bridge internal capacity gaps, leading to enhanced accountability among government entities, increased policy effectiveness, and improved dialogue with stakeholders from the private, public, or non-governmental sectors. For example, although several countries included interest in accessing external finance through carbon markets in their NDCs, they have institutional lags, such as the lack of a GHG inventory, which hinders the ability to access or swiftly create a carbon market.



Figure 23.

Innovative Financial Opportunities Enabled by Monitoring of Climate Information



Mitigation: GHG Emission Inventory

- Issuance of thematic bonds: green, blue, sustainability.
- MRV to demonstrate emission reduction results (SLL, SLB, etc.)
- Verification of the impact and scope of NDC goals to be reported under the Enhanced Transparency Framework (ETF)



Adaptation: Vulnerability map, social indicators, etc.

- Issuance of thematic bonds: green, blue, social, sustainability.
- MRV to demonstrate results in vulnerability reduction/resilience increase (sustainability-linked loans/bonds: SLL, SLB, etc.)
- Verification of the impact and scope of NDC goals to be reported under the Enhanced Transparency Framework (ETF)



Climate finance: budget classifier, green taxes, etc.

- Issuance of thematic bonds: green, blue, social, sustainability; on the basis of national budget-based investments
- Reporting climate financing-related foreign direct investment (cf. 100B)
- Verification of the impact and scope of NDC goals to be reported under the Enhanced Transparency Framework (ETF)

It is important to emphasize that countries still require grants and technical support to continue strengthening their capacities and promoting dialogue between the ministries of finance and the environment, two key entities in the development, execution and success of the new results-based finance mechanisms linked to climate change, biodiversity, etc.

Overall, it can be stated that most of the countries analyzed have policies for access to public information and open data, and have undertaken international commitments in environmental matters, particularly in climate change.

As the openness agenda continues to strengthen with the adherence to international commitments, such as those related to open data, transparency and open government, countries must prioritize climate change data collection, analysis and access and generate knowledge products to identify and promote synergies between the two agendas (e.g., Open Data Charter Guide for Using Open Data to Advance Climate Action⁵⁸).

In the cases analyzed, we have seen how governments generate information and data related to climate change that is not necessarily in an open format. This is an obstacle for proper accountability to citizens and hinders reuse, which could provide valuable feedback for public policies and enable access to additional financial resources to advance climate action.

The Paris Agreement in its Articles 12 and 13 proposes innovative instances of awareness, citizen participation, and access to information, and establishes the Enhanced Transparency Framework. Disclosure of information in open formats, together with innovative mechanisms for participation and reuse, can represent an ideal way to meet and increase the ambition of the objectives of the Agreement. It is of the utmost importance to reinforce and solidify countries' data reporting efforts and support them in the governance required to strengthen reporting mechanisms and the enabling conditions needed to carry out transparent processes.

⁵⁸ <https://open-data-charter.gitbook.io/guia-de-apertura-de-datos-de-cambio-climatico/>

As previously mentioned, it could be said that there is no single governance model that works for all cases. However, common points can be found to promote and strengthen this agenda, which arise from the experiences developed so far, the challenges identified, and the strategies proposed:

- Regulatory framework providing support
- Clear obligations
- Coordination policies
- Process standardization
- Capacity building
- Regular evaluations
- Building communities and alliances

Finally, beyond the mere compliance with data and information publication obligations, it is important to emphasize the virtuous circle that reuse processes entail. Indeed, ecosystem actors can create added value by generating synergies that trigger new services and products. This is key when proposing a dynamic governance model that is able to embrace a diversity of actors in the information production and utilization processes.



