COLOMBIA POTENCIA DE LA VIDA

Hacienda

Green Finance for the Sustainable Development of Colombia

Comprehensive Climate Change and Biodiversity Management Plan for Fiscal and Financial Policy (PIGCCSH+B for its acronym in Spanish)

IDB

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BID

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Foreword

María Fernanda Valdés Valencia
Technical Deputy Minister

There is a reciprocal relationship between climate change and biodiversity loss: alterations to ecosystems, induced from the climate crisis, accelerate the loss of biodiversity, while the decline in biodiversity enhances global warming due to the vital role played by ecosystems as carbon sinks, which are fundamental to the planet's climate balance.

Climate change and biodiversity loss are global challenges with widespread but differentiated impacts. They affect both the urban dweller, who has to deal with extreme heat waves, and the farmer in La Mojana, who faces increasingly severe rains. Moreover, these problems threaten the integrity of ecosystem services, fundamental pillars that sustain our life and society.

This problem has a significant impact on Colombia's macro-economic and fiscal situation, exposing the country to both physical and transition risks. For example, natural disasters pose a significant contingent liability for the nation. Another example of risks comes from the high dependence on mining-energy activities in terms of both current external revenues and tax collection, which increases our vulnerability to a rapid global energy transition. These conditions require careful attention so as not to hinder the country's economic and social progress and pose additional challenges for the most disadvantaged communities.

Recognizing the interconnection between biodiversity loss and climate change, as well as the associated risks to our economy, fiscal stability and our future development, the Ministry of Finance and Public Credit presents to the general public its Comprehensive Climate Change and Biodiversity Management Plan for Fiscal and Financial Policy. This document identifies the short- and mid-term impacts of these phenomena on public and private finance and the main macroeconomic indicators, and proposes a set of actions aimed at understanding and mitigating the associated risks, as well as identifying and enhancing the opportunities that arise in the economic and social sphere.

This Plan suggests five strategies that seek to respond to the challenges identified based on the tools available to the fiscal and financial policy makers, focused on specific stakeholders: the international community, the National Government, Subnational Governments, the Productive Sector, and the Citizenship and Civil Society.

The document reflects the collaborative effort between the Ministry of Finance and various sectoral entities, whose dedication and work deserve our most sincere appreciation. We extend our gratitude to Manuel Rodríguez, Sandra Vilardy, Guillermo Rudas and Ximena Barrera of the National Environmental Forum (FNA), as well as to

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Acronyms

AC	Joint Implementation Mechanism
ACPM	Diesel Fuel
ADS	Environment and Sustainable Development
AFP	Pension Fund Administrator
AIE	International Energy Agency
AIPP	Public-Popular Partnerships
ALC	Latin America and the Caribbean
ANLA	National Environmental License Authority
ANM	Non-Municipal Areas
APP	Public-Private Partnerships.
APSB	Potable Water and Basic Sanitation
ASG+R	Environmental, Social, Governance and Resilience Criteria
AU	African Union
BANREP	Colombia's Central Bank
CAR	Regional Autonomous Corporation
CARF	Autonomous Fiscal Rule Committee
CATDDO	Catastrophe Deferred Drawdown Option
CDM	Clean Development Mechanism
CEPAL	Economic Commission for Latin America and the Caribbean
CISA	Central de Inversiones S.A.
CORSIA	Carbon offsetting and reduction scheme for international aviation
COVID	Coronavirus Disease
CPEIR	Climate Public Expenditure and Institutional Review
DANE	National Statistics Administration Department
DGAF	General Department of Fiscal Support of the Ministry of Finance
DIAN	National Tax and Customs Directorate
ECDBC	Colombian Low Carbon Development Strategy
EETT	Territorial Entities
ENFC	National Climate Finance Strategy
ENREDD+	National Strategy for Reducing Emissions from Deforestation and Forest Degradation in Colombia
EPFRD	Disaster Risk Financial Protection Strategy
FAE	SGR Savings and Stabilization Fund
FAO	Food and Agriculture Organization of the United Nations
Fedesarrollo	Foundation for Higher Education and Development
FEPC	Stabilization Fund on Fuel Prices.
FIDUAGRARIA	Sociedad Fiduciaria de Desarrollo Agropecuario S.A.
FIDUCOLDEX	Fiduciaria Colombiana de Comercio Exterior S.A.
FINAGRO	Fund for Livestock and Farming Sector Funding
FINDETER	Financiera de Desarrollo Territorial S.A
FNCE	Non-Conventional Energy Sources
FNG	National Guarantee Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GPFM	Green Public Financial Management
ICETEX	Colombian Institute of Educational Credit and Technical Studies Abroad
IDEAM	Hydrology, Meteorology and Environmental Study Institute
IIF	Institute of International Finance

IMF	International Monetary Fund
IRSSI	Social Responsibility and Institutional Sustainability Initiative
ISSB	International Sustainability Standards Board
MADS	Ministry of the Environment and Sustainable Development
MHCP	Ministry of Finance and Public Credit
MME	Ministry of Mines and Energy
MRV	Monitoring, Reporting and Verification System
NBSAP	National Biodiversity Strategies and Action Plan
NDC	Nationally Determined Contributions
NGFS	Financial System Greening Network of Central Banks and Financial Supervisors
OECD	Organization for Economic Cooperation and Development
PEFA	Public Expenditure and Accountability Program
PFM	Public Financial Management
PGN	General Budget of the Nation
PIGA	Institutional Environmental Management Plan
PIGCCS	Comprehensive Sectoral Climate Change Management Plans
PIGCCSH+B	Comprehensive Climate Change and Biodiversity Management Plan for Fiscal and Financial Policy
PIGCCT	Comprehensive Territorial Climate Change Management Plans
PIMA	Public Investment Management Assessment
PNACC	National Climate Change Adaptation Plan
PNCTE	National Greenhouse Gas Emission Trading Quotas Program
DNP	National Planning Department
PND	National Development Plan
PNN	National Natural Parks
PREAD	District Environmental Excellence Program
PTLAC	Tax Platform for Latin America and the Caribbean
REI	Renewable Energy Integration Program
RENARE	National GHG Emissions Reduction Registry
RNNR	Non-Renewable Natural Resources
RST	Resilience and Sustainability Trust Fund
SAE	Sociedad de Activos Especiales S.A.
SARAS	Environmental and Social Risk Management Systems
SCE	Emissions Trading System
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
SES	Superintendence of Solidarity Economy
SFC	Financial Superintendency of Colombia
SGR	General Royalties System
SISCLIMA	National Climate Change System
SMES	Small and Medium Enterprises
TVC	Green Taxonomy of Colombia
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
URF	Unit of Regulatory Projection and Financial Regulation Studies
VAT	Value Added Tax
VSS+	Green, social and sustainable bonds

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1. Introduction

The triple planetary crisis resulting from climate change, environmental pollution and biodiversity loss is the main challenge to be faced in the 21st century. Climate change poses a threat to Colombia's development because it can exacerbate inequality and poverty, damage physical capital and infrastructure, disrupt electricity generation, reduce labor productivity and human capital, and cause losses in agriculture. On the other hand, the loss of biodiversity caused by deforestation and inefficient regeneration leads to the inevitable reduction of natural resources and ecosystem services that support the productive apparatus and society.

According to World Bank estimates[1], Colombia would need to invest approximately USD 92 million more between 2022 and 2050 to promote resilience and carbon neutrality. This need arises from the country's vulnerability to rising temperatures, meteorological phenomena and the global transition to a low-carbon economy, which has a negative impact, especially on low-income sectors[2].

The risks associated with climate change, both physical and transition related, are wide-ranging and affect all actors and sectors of the economy. Physical risks refer to extreme events (Colombia is vulnerable to extreme weather events such as prolonged droughts or floods, effects of the La Niña or El Niño phenomena, loss of biodiversity, landslides, among others) and changes in weather patterns, such as changes in sea level. On the other hand, Colombia is exposed to high transition risks due to the significant share of mining-energy activities in tax and external current revenues. Likewise, the high costs associated with the energy transition in productive sectors with greater transmission to the banking system could have repercussions on the stability of the financial system.

Colombia already faces significant climate challenges due to its exposure to climate-related natural disasters and its high economic dependence on fossil fuels.[3] The country has one of the highest rates of damage caused by natural and climate disasters in Latin America[4] and floods and landslides are the most prevalent and frequent disasters. Exposure to climate risks is widespread: 47% of the territory faces "high" or "very high" climate risks [5] and 84% of the population and 86% of its assets are exposed to two or more types of natural disasters[6]. Climate and disaster risks represent Colombia's largest contingent liability, as they could generate an impact on economic activity equivalent to 4.4% of the GDP[7]. Apart from the economic risks from climate change, the decarbonization of trading partners is likely to affect Colombia's trade and fiscal balance through two channels: (i) reduction of hydrocarbon demand and prices and (ii) enactment of climate-related trade regulations.

To address climate change, Colombia has proposed ambitious adaptation and mitigation measures in its international commitments.

1 Colombia: Country Climate and Development Report 07/23 - World Bank Group https://n9.cl/bl4mk
2 Idem
3 Idem
4 Colombia ranks second in the Latin American region in the hazards and exposure category of the INFORM risk index (European Commission, 2022).
5 IDEAM (Hydrology, Meteorology and Environmental Study Institute) 2017. Analysis of vulnerability and risk due to climate change in Colombia: third national communication on climate change. Bogotá: IDEAM. https://n9.cl/0o68e
6 Agwe, Jonathan N., Margaret Arnold, Piet Buys, Robert S. Chen, Uwe Klaus Deichman, Maxx Dilley, Oddvar Kjevstad, Arthur L. Lerner-Lam, Bradfield Lyon, and Gregory Yetman. 2005. Natural Disaster Hotspots: A Global Risk Analysis. Washington, D.C. World Bank Group. https://n9.cl/6168ef
7 MHCP - Medium-term fiscal framework 2021: https://n9.cl/26d7c

Adaptation measures are all those "actions and measures aimed at reducing the vulnerability of natural and human systems to the actual or expected effects of climate change"[8], i.e., how we can cope with the problem and reduce its consequences. On the other hand, climate change mitigation is defined as "the measures that seek to reduce the levels of greenhouse gas (GHG) emissions into the atmosphere by limiting or reducing the sources of emissions, such as deforestation, industry, transportation, livestock, among others, and increasing or improving reservoirs and reserves". These measures include all policies, strategies, programs, projects, incentives or disincentives aimed at limiting or reducing GHG emissions and improving carbon reservoirs, in accordance with the United Nations Framework Convention on Climate Change (UNFCCC)[9], i.e. what we can do to address the causes of the problem and how to reduce its effect.

On the other hand, Colombia, as a megadiverse and bioceanic country, gives great importance to the protection of ecosystems, including marine and coastal ecosystems, and to the conservation of biodiversity in all its surroundings, since the permanence of human beings on the planet depends on this environmental wealth. In addition to the above, Colombia has significant potential to mitigate climate change through the protection and restoration of strategic ecosystems due to their critical role as carbon sinks. Among the impacts generated by forest loss, agriculture and land use changes is the release of GHGs, which produced on average 56% of the country's emissions between 2014 and 2018. It is also recognized that biodiversity and its ecosystem services provide benefits that are the basis for the development of the country's economic and social activities and adaptation to climate change. The Bases of the National Development Plan 2022-2026 establishes as a priority the planning of the territory around water, recognizing that respect for water, its cycles and ecosystems, will make Colombia a territory better adapted to climate change, with the provision of the necessary benefits for the well-being of the population and a prosperous economy. Following the approval of the Kunming-Montreal Global Biodiversity Framework in December 2022, Colombia began the process of updating its Biodiversity Action Plan (NBSAP), which will contain the country's goals on this front.

According to the Biodiversity Finance Initiative (BIOFIN) in Colombia, there is a gap between the projected financial requirements for biodiversity and ecosystem services management and Colombia's historical spending on biodiversity. BIOFIN estimated, using Colombia's 2016-2030 NBSAP as a reference, that as of 2018 biodiversity spending represented only 66% of the annual expenditure needed to implement biodiversity management policy. Likewise, the funding gap for biodiversity in Colombia identified by BIOFIN in 2018 amounted to more than USD 22 million[10] annually until 2030, after having tracked public and private spending oriented towards biodiversity and identified the cost of the Action Plan[11], which highlights the importance of strengthening efforts for its financing.

As a measure to address climate change and biodiversity loss, Colombia seeks to develop a low-carbon economic model in harmony with the environment, which requires three transi-

8 MADS - Adaptation to Climate Change: "https://n9.cl/3ptsxb
9 MADS - GHG Mitigation: https://n9.cl/3lpqy
10 Figure in constant 2018 prices, with the Market Exchange Rate as of April 30, 2018.

tions: productive, energy and fiscal. Regarding the productive transition, the national government proposes in its national reindustrialization policy 2022-2026[12] to move from an extractivist economy to a knowledge-based, productive and sustainable economy. In energy matters, as indicated in the National Energy Plan 2022-2052, the aim is to identify technological alternatives in energy production and consumption, evaluating their future impact on supply, competitiveness and sustainability and incorporating elements and criteria for a just transition. Finally, in fiscal matters, it is necessary to finance social and economic reforms and programs to achieve greater social and climate justice while maintaining debt and public finance sustainability and preserving macroeconomic stability. Likewise, the fiscal transition implies a gradual substitution of the country's income that depends on fossil fuels, which is closely related to the productive transformation proposed in the reindustrialization policy.

Colombia has implemented policies for climate change and biodiversity and has raised the country's commitments in this area to the level of regulatory frameworks. The creation of the National Environmental System (SINA), the signing of international agreements and their translation into national regulations have allowed the country to implement, for several decades, economic instruments such as taxes and fees with environmental purposes (e.g., retributive fees for pollution, water use fees and the Carbon Tax), the Colombian Green Taxonomy (TVC), sovereign green bonds, among others. Additionally, in terms of fiscal and financial policies for climate change and biodiversity, Colombia has: i) the Financial Superintendency of Colombia's (SFC) greening of the financial system strategy , ii) the financial strategy for disaster risks and iii) a methodology that evaluates sustainable infrastructure for Public-Private Partnership (APP for its Spanish Acronym) schemes, which takes into account environmental, social, governance and climate resilience issues.

This commitment is ratified with the development of the bases of the National Development Plan 2022-2026 "Colombia, World Power of Life" that includes the objective of laying the foundations for a change in the way Colombians relate to the environment, a productive transformation based on knowledge and in harmony with nature. The bases of the PND also establish that the country will lead the great alliance for the protection and recovery of the Amazon, a territory shared with eight countries, which is the key to regulating the global climate and safeguarding the biological and cultural heritage of humanity.

Despite these great challenges, the country's economic and financial capacity is limited to assume all the social and climate change and biodiversity conservation commitments. Although the country has allocated annual public resources (on average 0.16% of GDP[13]) between 2011 and 2021, the Organization for Economic Cooperation and Development (OECD) and the United Nations (UN) recommend investing annually a value close to 2% of GDP[14]. Given the above, it is important to cre-

11 Mobilizing Resources for Biodiversity in Colombia Financial Plan - BIOFIN, 2018
12 Conpes 4129 - 2023 - 4129.pdf (dnp.gov.co)
13 Estimates made by DNP in the National Climate Finance Strategy 2022.
14 According to the National Climate Finance Strategy, the country must invest between $8.76 and $14.19 trillion pesos per year to finance mitigation goals (0.7% and 1.2% of GDP by 2021). On the other hand, the Strategy estimates that the costs of the adaptation actions proposed in the national goals are in a range between $5.8 and $10.5 trillion pesos (0.5% and 0.8% of GDP in 2021).

ate mechanisms to mobilize more resources and comply with environmental commitments within a framework of debt sustainability and fiscal stability.

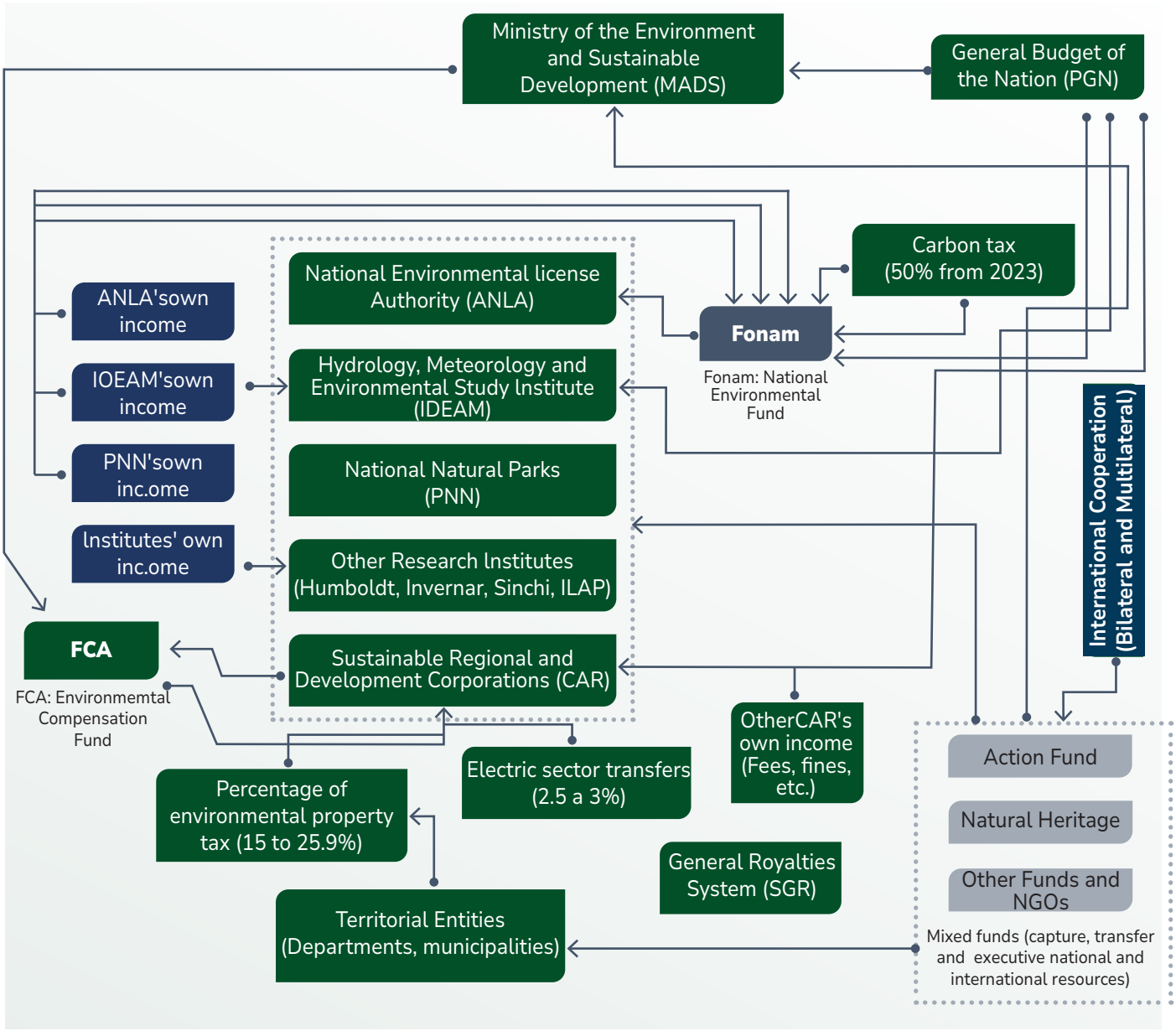
In this context, the Ministry of Finance and Public Credit (MHCP) is called upon to contribute to the country's climate change and biodiversity policies. This contribution should be mainly focused on: (i) outlining actions that seek to effectively distribute resources to develop these strategies, (ii) establishing the conditions that allow and encourage the design of economic and financial instruments for climate change mitigation and adaptation and biodiversity conservation, and (iii) contributing to the development of analyses, metrics and economic indicators that allow a better understanding of the value of natural capital and the effects of climate change and biodiversity loss on economic activity.

Regulatory and Institutional Framework for Climate Change and Biodiversity in Colombia

With the 1991 Political Constitution, the country elevated the management and protection of natural resources and the environment to a constitutional norm. This recognizes the obligation of the State and individuals to protect the cultural and natural wealth of the Nation, the right of Colombians to have a healthy environment and sustainable development as the model that guides economic growth. In this context, Law 99 of 1993 created the Ministry of the Environment (now the Ministry of the Environment and Sustainable Development) and the National Environmental System (SINA, for its Spanish acronym), defined as the set of guidelines, regulations, activities, resources, programs and institutions that enable the implementation of the general environmental principles contained in the Constitution. Since Colombia ratified the adoption of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity through Laws 164 and 165 of 1994, respectively, the country has made progress in establishing policies and institutional and regulatory arrangements to facilitate the implementation of measures to combat the effects of climate change and halt the loss of biodiversity.

Law 99 of 1993 also created and reformed Regional Autonomous Corporations (CAR, for its Spanish acronym**) and established sources of revenue, some in the form of earmarked revenues, for the financing of the environmental sector.** SINA's financial flows are shown in Figure 1 whose sources include, among others, the National General Budget (PGN, for its Spanish acronym), the General Royalties System (SGR, for its Spanish acronym), revenues of the entities that are part of the sector and resources from the territorial entities. The CARs, according to the National Environmental Forum (FNA, for its Spanish acronym), receive a large part of SINA's income, which is obtained through transfers, fees, fines and participation in national and territorial taxes. CARs revenues during the 2016-2020 period were COP 8.9 trillion.

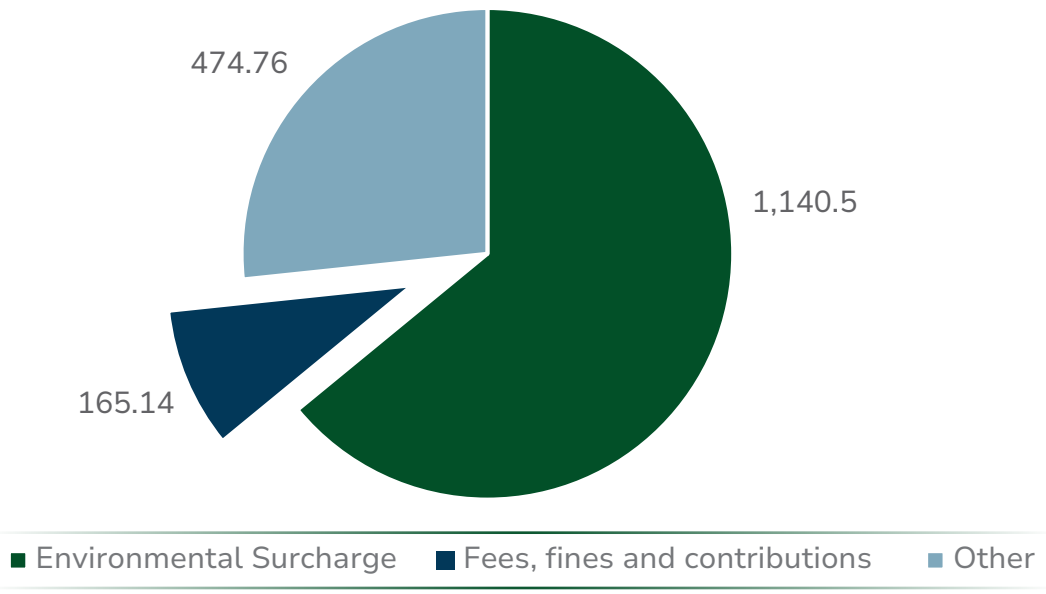
Illustration 1. Main SINA Financial Flows



Source: Institutional and Financial Analysis of the Colombian Environmental Sector, 2016-2020 - National Environmental Forum

The CARs have two important financial characteristics: on the one hand, the income from fixed revenues they receive from their participation in different taxes and tariffs (Figure 1) and, on the other hand, the autonomy they have in managing their own resources. However, the FNA, in its book "Institutional and Financial Analysis of the Colombian Environmental Sector, 2016-2020", evidenced that there is room for improvement in the administration of the resources managed by these entities, especially in aspects of execution and inequity when it comes to distributing resources. This serves as an example of the opportunities that may exist in different sectors to strengthen the institutional framework for financing climate change and biodiversity objectives.

Figure 1. Main Sources of Income of the CARs: Average Income for the 2016-2020 Period (Figures in Billions)



Source: Institutional and Financial Analysis of the Colombian Environmental Sector, 2016-2020 - National Environmental Forum

Regarding international environmental policy, the Paris Agreement[15], which came into force in 2016, established that limiting global warming to 1.5°C is necessary tooid human, eco-system-ic and financial catastrophes. Changes in GHGs caused by human activity are causing serious risks, both physical and transition-related, which will give rise to financial risks. This commitment materialized through the Nationally Determined Contributions[16] (NDC), updated by Colombia in 2020. In this update, Colombia committed, by 2030, to reduce 51% of GHG emissions, reduce the rate of deforestation to 50,000 hectares per year, have an increase of 18,000 hectares in the process of restoration, rehabilitation and/or ecological recovery in protected areas of the National Natural Parks System, achieve carbon neutrality by 2050, among other commitments. In Article 2.1 of the Paris Agreement, the signatory countries agreed to align financial flows with the objectives of the agreement. This article promotes the regulation of financial flows and investments, both public and private, to ensure that the economic activities derived from them comply with the temperature objective established in the agreement.

The 15th Conference of the Parties held in December 2022 to the United Nations Convention on Biological Diversity adopted the Kunming-Montreal Global Framework for Biodiversity. This Framework proposes to halt

15 The Paris Agreement is an international treaty on climate change that was adopted by 196 parties at COP21 in Paris on December 12, 2015 and entered into force on November 4, 2016.

16 These contributions are at the heart of the Paris Agreement and the achievement of its long-term goals. At the national level, they embody the country's efforts, in terms of national mitigation measures, to reduce its national emissions and adapt to the effects of climate change - UNFCCC: https://n9.cl/bum3p"

and reverse the loss of nature, in a context of dangerous decline that threatens the survival of a million species and affects the lives of trillions of people. Its purpose is to safeguard and to use biodiversity sustainably and one of its objectives is to close the yearly USD 700,000 million biodiversity funding gap.

In Colombia there are two legal norms that frame the Comprehensive Climate Change and Biodiversity Management Plan for Fiscal and Financial Policy (PIGCCSH+B). On the one hand, Law 1931 of 2018 establishes guidelines for the management of climate change in the decisions of public and private persons. At the national level, this Law assigns to the ministries the instrument of the Comprehensive Sectoral Climate Change Management Plans (PIGCCS), through which each ministry identifies, evaluates and guides the incorporation of greenhouse gas mitigation and climate change adaptation measures in the policies and regulations of the respective sector. At the territorial level, the Comprehensive Territorial Climate Change Management Plans (PIGCCT) are the instruments through which territorial entities identify, evaluate, prioritize and define measures and actions for adaptation and mitigation of greenhouse gas emissions to be implemented in the territory for which they have been formulated. On the other hand, Decree 298 of 2016 establishes the National Climate Change System (SISCLIMA) whose purpose is to coordinate, articulate, formulate, follow up and evaluate policies, standards, strategies, plans, programs, projects, actions and measures on climate change adaptation and greenhouse gas mitigation. Some of these long-term policies, strategies and plans at the country level include:

1. CONPES 3700 of 2011[17] "Institutional Strategy for the Articulation of Policies and Actions on Climate Change in Colombia".
2. "National Climate Change Policy"[18].
3. "National Climate Change Adaptation Plan"[19] (PNACC), whose objective is to reduce the country's vulnerability and increase the response to climate change threats[20].
4. The "Colombian Low Carbon Development Strategy" (ECDBC), which seeks to facilitate and promote the conditions to set the country on the path to economic development with low greenhouse gas emissions[21].
5. "Colombia's Long Term Climate Strategy"[22] (E2050).
6. "National Strategy for Reducing Emissions from Deforestation and Forest Degradation in Colombia" (ENREDD+), a plan to reduce carbon dioxide emissions produced by deforestation and forest degradation and, in turn, conserve and improve the services provided by forests and the development of the communities that inhabit or depend on them[23].
7. The "*National Strategy for Financial Protection against Disasters, Epidemics and Pandemics*"[24] (ENPFRDEP), which establishes the guiding framework for public policies and financial management for disaster risk protection. The above guarantees the reduction of fiscal vulnerability due

17 Conpes 3700 of 2011: https://n9.cl/ap76rt"
18 PNCC: https://n9.cl/xksbo
19 PNACC: https://n9.cl/kxism
20 MADS - PNACC: https://n9.cl/5mbcs
21 MADS - ECDBC: https://n9.cl/wyixs
22 MADS – E2050: https://n9.cl/s5x22
23 MADS - REDD+: https://n9.cl/4di37
24 MHCP - ENPFRDEP: https://n9.cl/hd45l

to the adequate management of contingent liabilities[25] evaluated at 4.2% of GDP[26].

8. The "National Climate Finance Strategy"[27] (NFCS) that aims to identify ways to mobilize resources in a sustainable manner focused on achieving climate change policy objectives[28].

While Law 1931 states that the primary objective of the PIGCCS is climate change, the Fiscal and Financial Policy Plan seeks to broaden its scope to include biodiversity objectives. This is based on the recognition of the interrelationships that exist between the different environmental objectives, the bi-directionality between climate change and the conservation and sustainable use of biodiversity and natural capital, and the cross-cutting nature of fiscal and financial policy.

Role of Finance Mainistries in Climate Change and Environmental Policies

The role of finance ministries is to support the fulfillment of environmental and climate objectives and to promote sustainable, inclusive and resilient development and growth.[29] Ambitious climate action can help finance ministries achieve their key priorities of macro stability, growth and responsible management of public finances. This in turn brings at least three important benefits: 1) addressing risks associated with climate change that have macroeconomic consequences, including economic shocks and increased cost of capital; 2) improving economic and public finance resilience; and 3) creating significant opportunities for growth and development. This is why finance ministries should incorporate climate and environmental criteria into their core functions of economic strategy, fiscal and financial policy.

The MHCP plays an essential role in the implementation of the NDCs in Colombia and the achievement of biodiversity targets, especially in terms of planning and coordination of fiscal and financial policies related to climate change and the environment. Some of the ways in which the MHCP can support this include identifying financial resources, cross-sectoral coordination, mobilizing resources through additional funding sources and monitoring progress, as well as promoting accountability. Its participation contributes to guaranteeing the financial viability of the actions and to promoting sustainable development in the country.

The objective of the Comprehensive Climate Change and Biodiversity Management Plan for Fiscal and Financial Policy (PIGCCSH+B)

The scope of this Plan is the public and private finance sectors led by the Ministry of Finance and Public Credit, which is respon-

25 Contingent liabilities are those that can be determined based on uncertain future conditions. Their valuation will depend on the potential impact and the probability of occurrence of the event. This type of liability can be generated by exogenous or endogenous events. MHCP: https://n9.cl/omb7f
26 Medium-Term Fiscal Framework 2023. MHCP: https://n9.cl/93xpb
27 DNP - ENFC: https://n9.cl/clppz
28 National Climate Finance Strategy (2022) - DNP and Fedesarrollo
29 Coalition of Finance Ministers for Climate Change - Strengthening the Role of Finance Ministries in Driving Climate Action - A Framework and Guidance for Finance Ministers and Ministries. Final Report 06/2023

sible for defining and directing the State's economic and fiscal policy, as well as coordinating with the Board of Directors of the Central Bank, the government's financial, monetary, credit, foreign exchange and fiscal policies. This sector is made up by the Ministry of Finance and Public Credit, which has affiliated and related entities that carry out fiscal, tax, customs, cooperative and financial activities, among others (Figure 2) [30].

Illustration 2. Entities Affiliated to the Ministry of Finance and Public Credit

Source: Elaborated by the authors

The main objective of the PIGCCSH+B is to outline actions that will make possible the mobilization of the necessary resources to develop strategies for climate change and the sustainable use of the country's biodiversity and natural capital. This will be achieved by maintaining fiscal sustainability and establishing conditions that allow and encourage the design of economic and financial instruments for the mitigation and adaptation of climate change and the sustainable use of biodiversity and natural capital. The PIGCCSH+B seeks to comply with Law 1931 of 2018 and expand the scope for the entire sector of the climate change plan

30 Public Administrative Department, 2019.

that the MHCP implemented and carried out since 2018.

The actions proposed by the PIGCCSH+B are based on five principles: opportunity, resilience, social focus, efficiency and innovation. These principles refer to:

- Opportunity: recognize that a low-carbon economy presents opportunities that must be identified, exploited and leveraged;
- Resilience: climatic phenomena have increased in frequency and intensity; therefore, it is necessary to have resilient public finances through strategies that address the effects of climate change and biodiversity loss on fiscal accounts;
- Social focus: actions to address climate change and biodiversity loss must have a social focus, as the climate crisis and ecosystem degradation mainly affect the most vulnerable individuals and communities[31];
- Efficiency: although Colombia has made progress in the implementation of economic and financial instruments that seek to obtain positive results for nature and climate change, these must be evaluated in terms of efficiency and impact.
- Innovation: the country must continue to innovate and be a pioneer in the implementation of new economic and financial instruments to meet environmental and climate objectives.

For the success of the PIGCCSH+B it is important to consider the different stakeholders: international actors, the national government, territorial entities, the productive sector, the financial sector and the citizenry. The presentation of the general strategy is based on these stakeholders as a reference point. First, the challenges related to climate change and biodiversity loss are a global challenge that requires consensus building and positioning the problem in the international context. Second, the national government has a set of instruments that seek to ensure the resilience of public finances to climate change. Thirdly, the territorial entities face their own challenges as a result of the transition, so a correct diagnosis and support from the national government to the subnational governments is essential for the success of the strategy. Fourth, the financial sector has the dual function of leveraging new resources from government commitments and transforming private savings into productive investment in harmony with the environment. Fifth, the productive sector is the engine of the economy and is responsible for the transition to a low-carbon economy, so it is essential that it has access to financial mechanisms to enable it to do so. Finally, citizens and civil society must be understood as active actors in the transformation that can contribute to the energy transition and to the conservation and sustainable use of biodiversity and natural capital.

Within these strategies, lines of action are developed, which aim at supporting the fulfillment of the country's environmental and climate objectives. These lines of action can be grouped into two main fronts. The first lines of action are associated with the mission of the MHCP and correspond to the analysis of fiscal efficiency, sovereign financing instruments, fiscal and financial risk management and institu-

31 According to UNCTAD, 69% of climate deaths in the last 50 years have occurred in the 46 least developed countries (1.1 billion inhabitants) that emit less than 4% of emissions. UNCTAD. Least Developed Countries Report (2022): https://n9.cl/sye3a

tional framework. The second group of lines of action are associated with strategic aspects of the finance sector that contribute substantially to the country's climate finance and compliance with the NDCs, including subnational fiscal planning, expansion of Colombia's Green Taxonomy, greening of the financial sector, financing of sustainable infrastructure, transition of state-owned enterprises to net zero, regulation of the Colombian carbon market, resources for non-municipal regions and Public-Popular Partnerships. This PIGCCSH+B is the result of an effort led by the MHCP with the participation of various public and private finance sector institutions that share the conviction of building a sustainable fiscal and financial policy.

Key Stakeholders for the Implementation of PIGCCSH+B

Progress in the implementation of the PIGCCSH+B depends, to a large extent, on the coordinated execution of strategic actions by key entities of the public and private finance sector. In this regard, Table 1 presents the entities that, due to their relevance and influence in the mobilization of sustainable financing, have a fundamental role in the fulfillment of the goals defined in this Plan.

Table 1. PIGCCSH+B Key Players

Fiscal, financial and environmental public policy design	Projection and issuance of fiscal and financial regulations.	Mobilization of environmental and climate financing
• Ministry of Finance and Public Credit (MHCP) • Ministry of the Environment and Sustainable Development (MADS) • National Planning Department (DNP) • National Tax and Customs Directorate (DIAN) • National Environmental System (SINA) • National Climate Change System (SISCLIMA)	• Ministry of Finance and Public Credit (MHCP) • Unit of Regulatory Projection and Financial Regulation Studies (URF) • Financial Superintendency of Colombia (SFC) • Superintendence of Solidarity Economy (SES)	• Ministry of Finance and Public Credit (MHCP) • Special Official Financial Institutions / National Development Banking • Cooperatives engaged in financial activity • Pension and severance fund management companies • Insurance firms • Collective investment funds • Commercial banking • Issuers of securities • Stock exchanges and other securities market infrastructures • Fintech companies • Multilateral financial entities • Multilateral climate and environmental funds • International Cooperation Agencies • Other governments

Source: Elaborated by the authors

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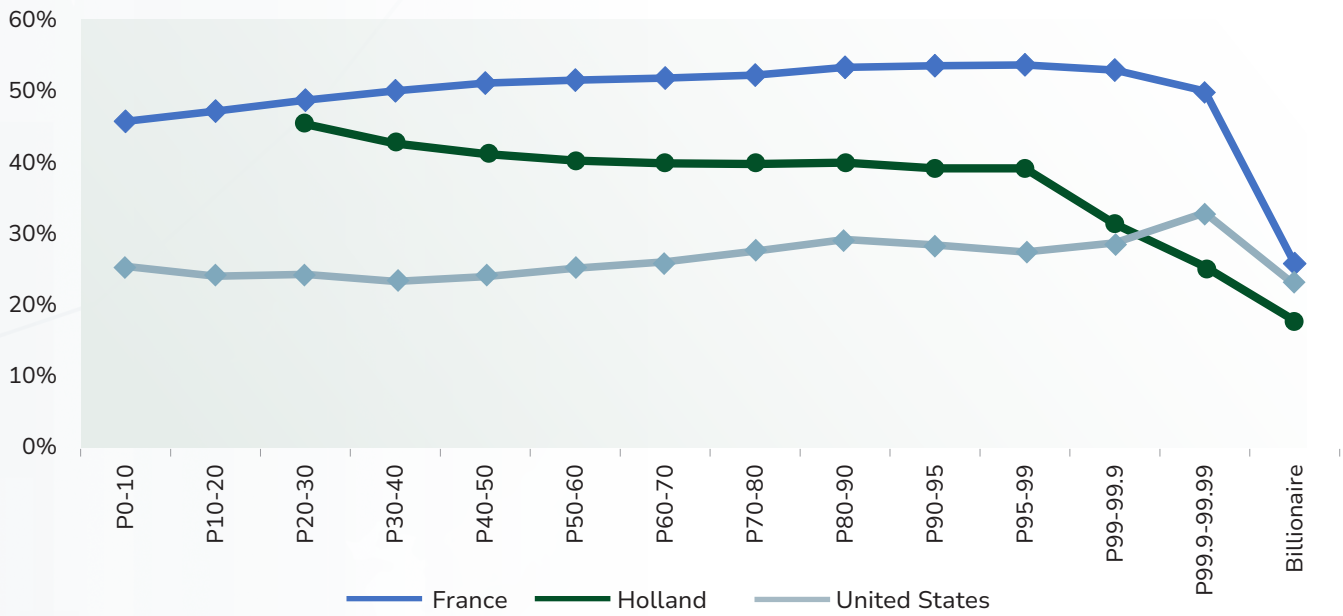
2. International Strategy

Action 1: International Taxation System

Tax policy at the global level must be more equitable and sustainable, for which the persistent problems of regressivity in the international tax system must be resolved. In countries such as France, the Netherlands and the United States, the lowest income decile of the population pays a higher average tax rate than the top 0.01% of the population (Figure 2). In the best case, this difference is 2 percentage points and in the worst case it is 27.6. In addition, globalization and the high mobility of capital, business functions and tangible and intangible assets have created a scenario in which national tax policies are ineffective in the absence of minimal coordination at the regional level and, in several cases, at the global level.

Figure 2. Average Tax Rate by Income Bracket Groups



Source: Global Tax Evasion Report 2024 - EU Tax Observatory

Developing countries require domestic resources to finance investment in their sustainable development, where tax revenue affected by tax evasion, tax avoidance and the lack of international cooperation thereon is the main source. In 2022, corporate profits sent to tax havens were approximately USD 1 billion globally. As a result, it is estimated that losses in corporate tax revenues are equivalent to 10% of the total amount collected worldwide[32]**.** The alignment of international tax policy will maximize the attainment of resources for sustainable development, which is why Colombia, in July 2023, promoted the initiative

32 EU Tax Observatory - Global Tax Evasion Report 2024"

Towards an inclusive, sustainable and equitable global taxation, which concluded with the creation of the Tax Platform for Latin America and the Caribbean (PTLAC). At the Cartagena Summit in July 2023, 16 countries of the region met to prioritize taxation issues. One of the issues prioritized for the first year in which Colombia assumed the pro tempore presidency was environmental taxation, on which it seeks to promote a global initiative that responds to the magnitude of the challenge through the coordinated effort of the different jurisdictions.

In November 2023, the Economic and Financial Committee of the United Nations approved, in an initiative promoted by the African Union (AU) and supported by Colombia, the "Inclusive and Effective Promotion of International Fiscal Cooperation at the United Nations." At this assembly it was determined that efforts in international tax cooperation should be universal, considering the needs and capabilities of all states, especially those developing and with special needs. [33]

Action 2: International Financial System

Meeting environmental commitments requires a greater fiscal effort in a context of high levels of indebtedness, which requires a joint study of a portfolio of alternative financial instruments to address environmental challenges, a task that is to be advanced through the Global Independent Expert Review on Debt, Climate and Nature. This initiative was proposed by Colombia and Kenya within the framework of the Paris summit "For a New Global Financial Pact", taking into account that after the Covid-19 crisis, governments in general increased their public spending and, in the case of developing countries, this fiscal effort represented an increase in indebtedness[34]. The Institute of International Finance (IIF) stated that there is a risk of a debt crisis with global indebtedness corresponding to USD 307 billion, which was reported for the second quarter of 2023[35]. In addition, the report "A World of Debt" of the United Nations Conference on Trade and Development (UNCTAD) published in July 2023 shows that interest payments have grown faster (60.4%)[36] than other public spending items such as education (40.8%), investment (41.1%) and health (54.7%). In this regard, this group of independent experts will seek to identify financial mechanisms that could reflect the needs of these countries and allow them to increase their ambitions while maintaining fiscal sustainability and the country's risk perception, i.e., without raising debt levels and improving financing conditions. In addition, it is essential that the debate around debt, climate and nature integrates a global south perspective and considers the implications of a local level implementation.

Given the complex international scenario, the IMF used two financial instruments: i) the Special Drawing Rights (SDR) and ii) the

33 Second Committee Approves Nine Draft Resolutions, Including Texts on International Tax Cooperation. – United Nations Press
34 A world of debt 07/2023 - A world of debt | UNCTAD
35 Campos, R. (2023). World debt reaches a record $307 billion and debt ratios are rising: IIF. https://n9.cl/vwkf1
36 Nominal change (%) of public expenditure categories in developing countries between 2010-2012 and 2019-2021.

Resilience and Sustainability Trust Fund (RST) with the intention of contributing to the stability of the international financial system and the economic recovery of member countries. The SDR is an international reserve asset created by the IMF in 1969 to supplement its member countries' official reserves. Historically there have been 4 general allocations made by the IMF. The most recent allocation took place in 2021 for SDR 456,000 million, equivalent to about USD 650,000 million, in order to boost global liquidity given the financial conditions due to the COVID-19[37]pandemic. The Resilience and Sustainability Trust Fund seeks to provide long-term financing to support the most vulnerable member countries to increase their resilience to external shocks, such as climate change and future pandemics.

SDRs have the potential to become a key mechanism for development financing. This potential can be harnessed through: i) voluntary rechanneling of unused SDRs from developed to developing countries through the RST; ii) a new general SDR allocation with progressivity criteria to respond to ongoing global crises; and iii) decoupling of SDR issuance from the IMF quota system for new SDR asset classes for specific purposes, such as achieving the SDGs and climate action. The development of initiatives such as this one requires the construction of international agreements, which is why the "Global Independent Expert Review on Debt, Climate and Nature" initiative led by Colombia hopes to address issues of this kind.

Achieving environmental and climate objectives requires strategic investments at the global level. Colombia has also proposed promoting a type of global Marshall Plan aimed at financing global public investments, within the framework of a multilateral agreement, necessary to meet international environmental and climate objectives through international monetary and fiscal measures to maintain the debt sustainability of developing countries. Global public investments should be seen as a strategy to finance not only global projects, but also have a regional component and be integrated into national and local budgets. The global public investments that would make up this plan should be determined on the basis of the concept of "global public good", i.e., they should be aimed at protecting resources from which the entire planet benefits, but whose conservation costs fall disproportionately on a minority of countries.

Likewise, a reform of the international financial system should be promoted to guarantee a more equitable participation of the most vulnerable countries to climate change and with a potential for capturing Greenhouse Gases (GHG). In order to scale up financing at a lower cost for developing countries, it is necessary to establish a dialogue around the conditions and global financing needs for achieving climate and biodiversity objectives, especially the conservation of ecosystems with high potential of GHG capture. A more equitable participation of these countries in the governance of multilateral development banks and their capitalization are necessary to achieve a greater flow of financing to low- and middle-income countries. To advance these discussions, Colombia hosted the fourth international summit of public development banks "Finance in Common" in September 2023, which aimed to advance the creation of

37 Special Drawing Rights (SDRs) (imf.org) - IMF (International Monetary Fund).

new partnerships for the next generation of development finance, and to follow up on the conclusions of the Paris Summit "For a New Global Financial Compact".

Finally, Colombia will seek to attract more concessional resources from international sources to fulfill the country's climate change and biodiversity strategies. Responding to the global challenge of climate change and biodiversity loss requires coordinated action by governments and other key stakeholders. To this end, participation in international forums is fundamental, particularly in the dialogue on financing mechanisms for countries that are highly vulnerable to climate change and have GHG sequestration potential, such as Colombia. Additionally, the country will seek i) the implementation of large-scale multilateral financing programs, especially to support adaptation to climate change, biodiversity conservation and just energy transition plans, and ii) increase access to concessional resources from international climate finance mechanisms such as the *Green Climate Fund*, the *Climate Investment Funds*, among others. In this regard, at the end of January 2023, Colombia obtained the approval by the *Climate Investment Funds* of the Investment Plan under the Renewable Energy Integration Program (REI), with concessionary resources of USD 70 million that will allow progress in the creation of national capacities to face the climate crisis and its impacts on society, ecosystems and biodiversity**.**

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3. National Government Strategy

Fiscal policy is a key element of government strategies to face climate change and biodiversity loss. Public financial management (PFM) consists of all government institutional arrangements to facilitate the implementation of public policies, while "green PFM" aims to adapt existing public financial management practices to support environmental and climate policies in response to the growing urgency of addressing climate change and biodiversity loss[38].

Aligning fiscal issues with climate and environmental action is essential to ensure more responsible and sustainable economic and financial management[39]. The literature identifies some existing tools in Green Public Financial Management (GPFM) among which are: the green medium-term fiscal framework, budget classifiers and expenditure tagging, performance evaluation, green accounting statements, and fiscal transparency. To diagnose the status of this integration in Colombia, different methodologies are available:

- **CPEIR[40]**: shows the overall picture of how funding resources contribute to climate change financial flows in the country. In Colombia, the evaluation was carried out with data from 2018.
- **PEFA[41]-Climate:** Framework for assessing PFM alignment with climate-related policies.
- **PIMA[42]-Climate**: Methodology developed by IMF, which analyzes public investment systems at all stages of planning, investment allocation, and implementation. This methodology helps governments to identify possible improvements in investments institutions, and processes.

The MHCP, as the authority in charge of coordinating the country's economic, fiscal, and financial policy, has implemented several actions to address the main challenges associated with the environmental crisis. These actions have focused on improving the processes for programming and monitoring public spending, designing tax measures to correct negative externalities for the environment, and transforming public investment and sovereign financing instruments to prioritize sustainable projects, among others. Bearing in mind the major commitments that the National Government is seeking to develop in the strategy, the following are the lines of action of the PIGCCSH+B on this front.

38 Gonguet F, Wendling C, Aydin O & Battersby B. (2021). Public financial management with a climate perspective - "green PFM". Note 2021/002. IFM, Washington, D.C.
39 Pimienta, C. (2022). Advances and opportunities in Green Public Financial Management. Technical Note No. IDB-TN-2592. BID.
40 Climate Public Expenditure and Institutional Review
41 Acronym for "Public Expenditure and Financial Accountability"
42 Acronym for "Public Investment Management Assessment"

Action 3: Fiscal Efficiency

The identification of state interventions for environmental and climate purposes will allow measuring their efficiency and fiscal effectiveness. The design and implementation of fiscal instruments for environmental purposes such as penalties, taxes, subsidies, transfers, tax expenditures, among others, has been carried out in a disarticulated manner. Hence, it is difficult to calculate the impact that the different actions have on climate change and biodiversity targets. A first step to advance in the impact analysis of these measures is the identification of the fiscal instruments in place and the subsequent evaluation of their socio-economic effects.

The development of tools for expenditure-level tagging facilitates access to financing mechanisms and allows for adequate monitoring and traceability of resources allocated to biodiversity and climate change activities. Through budget management systems (national and subnational), we contribute to directing projects with an impact on climate change, reindustrialization, just energy transition, and the sustainable use of biodiversity and natural capital. Adequate tagging will facilitate the traceability and targeting of resources, as well as the identification of subsidies to highly polluting sectors.

Fiscal Revenues

Actions corresponding to the allocation of taxes, fees, tariffs, or fines should be accompanied by measurement of their efficiency and effectiveness. These actions, by representing an economic tax burden on the activities or events that generate the externality, seek to disincentive that will lead to the improvement or correction of the event that is impacting the welfare of society. The literature has affirmed that in the case of taxes, fees, tariffs or fines levied on those activities or actions that generate the externality not only reduce the incentives to pollute, but also generate revenues for the State, resulting in a double benefit for the latter[43]. However, state action, deployed by entities at the national and subnational levels, should not only be limited to the creation of tax actions, but should also measure their efficiency and effectiveness.

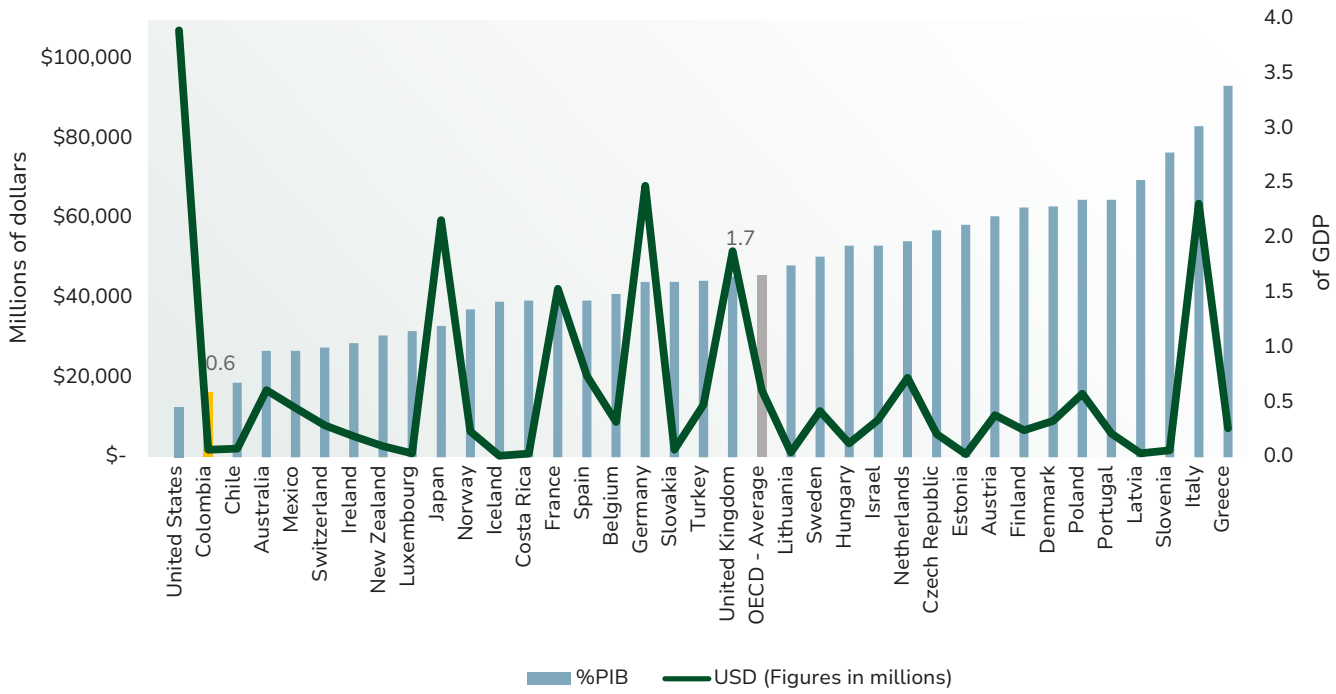
The relative importance in collection should not be considered as an indicator of the importance of a tax in achieving environmental objectives. ECLAC pointed out that tax intervention tools may present difficulties in their development in four possible dimensions. First, 1) that the tax is not the appropriate tool to correct the failure, 2) that no progressive attributes are considered in the design of the tool, 3) the absence of oversight and follow-up, and 4) the generation of distributive effects contrary to the principle of equity. In fact, the success in the introduction of a corrective tax consists in eradicating the behavior that has given rise to the externality to be corrected, so that the tax base of the tax should be reduced over time, as well as the life or duration of the tax[44]. However, in cases where emission reduction is difficult, it is

43 Musgrave, R., & Musgrave, P. (1991). Public Finance - Theoretical and Applied. McGraw Hill. https://n9.cl/a0byd
44 Lorenzo, F. (2016). Inventory of green fiscal instruments in Latin America: experiences, effects and scope | ECLAC

worthwhile to evaluate instruments that allow internalizing the negative externality and thus guide actions to mitigate the social and environmental consequences of their activities.

In Colombia, tax revenues related to climate change as of 2021 corresponded to about 0.6% of GDP, which is well below the OECD average. Colombia is 1pp and 0.5pp (Figure 3) below the overall average and weighted average respectively of Climate Change related revenues compared to the other OECD members. While it is important to increase revenues related to climate change, this must be accompanied by results that support the mitigation or correction of the market failure and the social and economic impact sought with the implementation of these actions.

Figure 3. **Climate Change Related Income in OECD Countries for 2021 (% of GDP)**



Source: OECD.Stat

The country must have a complete and official identification of all tax burdens at the national and sub-national levels, on the different activities directly and indirectly related to, or aimed at climate change, conservation and sustainable use of biodiversity and natural capital (Table 2**).** This identification map must be homogeneous for all levels of government, as well as being the input that serves as a statistical source for internal and external purposes, and must describe the generating facts that motivate each income, its objective, regulatory basis, tax benefits, if any, among other descriptive aspects.

Table 2. Sample Levies on Activities Involved with Environmental and Climate Change Issues

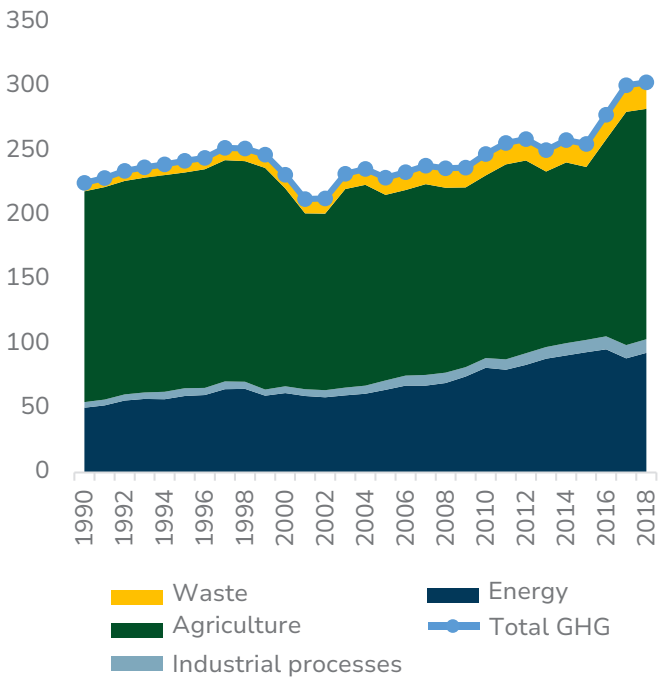
Current income	
Tax	**Non-taxpayers**
Percentage environmental municipalities	Rates
Environmental Surcharge	Water Use Tax
Carbon tax	Retributive rate for specific discharges
Excise tax on plastic bags	Compensatory fee for wildlife hunting
Gasoline and ACPM tax	Compensatory Fee for Timber Harvesting in Natural Forests
Surcharge on motor gasoline consumption	Compensatory fee for permanent use of the eastern woodland of the Bogotá forest reserve
ACPM Surcharge	CAR
Motor vehicle tax	Licenses
	Sale of goods and services
	Electric sector transfers
	Exploitation rights
	Fines and penalties
	Interests
	Other non-tax revenues
	Refunds and discounts

Source: Elaborated by the authors.

In the Colombian case, it is observed that there are instruments that seek to correct the negative externalities related to climate change and biodiversity loss; however, the historical behavior of greenhouse gases has been increasing with an average rate between 1990 and 2018 of 1.39% (Figure 4**).** Two possible hypotheses about these results could be that the fiscal instruments implemented have not contributed to behavioral changes leading to GHG emission reductions or, on the other hand, that GHG emissions could have been higher without the existence of these measures. According to the World Bank, in the period between 1998 and 2020, emissions increased by 66%, driven by the transport, agriculture, waste and energy sectors. This growth accelerated between 2015- 2018 due to increased emissions from land use activities. Understanding these mechanisms, the assets involved and their relationship to emissions reduction is part of the expected results of this plan.

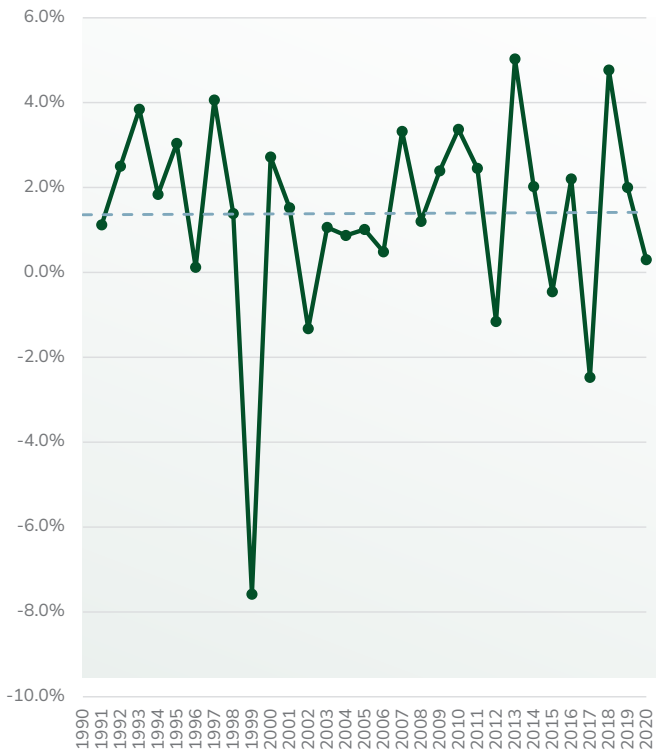
Figure 4. **Behavior of GHG Emissions in Colombia During the 1990 - 2020 Period**

Evolution of GHG emissions by activity
(In thousands of kilo-tonnes emitted).



Source: BUR3-Colombia Third biennial climate change update report for Colombia

Annual growth of GHG emissions + historical average
(1990-2020) (As % of change since 1990)



Source: Climatewatch

Another element to consider is the tax expenditure that seeks to promote positive actions with the environment. The design of concessions framed in tax expenditures covers the damage or social cost incurred by taxpayers to the detriment of the environment, generating benefits close to those sought with the imposition of taxes, fees or fines, and even has the potential to stimulate economic growth. This instrument seeks to: (i) encourage the proper use of renewable natural resources, (ii) minimize environmental damage caused by industrial, commercial and service activities, and (iii) guarantee the collection of financial resources for the implementation of strategies aimed at contributing to environmental objectives.

In any case, tax expenditures represent a lower collection and a cost for fiscal management, therefore, an evaluation of the costs and benefits related to these provisions is necessary, especially those directed to sectors related to environmental and climate objectives. These benefits are justifiable in cases where the social gain outweighs the associated costs. In the case of investment tax expenditures, the social benefits would normally involve a net increase in investment, employment and wages, as well as indirect effects on productivity[45]. The costs derived from the granting of the benefit must be considered, such as net losses in public collection, administrative and compliance costs, distorted allocation of resources and problems

45 OECD (2021). Report of the Committee of Experts on Tax Benefits. https://n9.cl/ue3wg

with the principle of horizontal and vertical equity. Regarding the latter, a recurrent fact in the problems associated with tax expenditures is that they tend to benefit the wealthiest households and not those in poverty.[46]

Table 3. Sample of Tax Incentives and Benefits on Activities Related to Climate Change and Biodiversity Activities

Encumbrance	Benefit
Carbon tax	No causation under carbon neutral certification. Income tax deduction.
Plastic bag tax	Special rate for bags with environmental solutions, with reductions from 100%, 75%, 50% and 25%, subject to the type of solution. No fee for biodegradable bags or bags with technical and mechanical characteristics that allow more than one use.
Motor vehicle tax	Limit to the fee attributable to the commercial value of the electric or hybrid vehicle of 1%. Special VAT rate at 5% for electric or hybrid vehicles.
Motor gasoline and ACPM surcharge	The fuel alcohol that is part of the total fuel will be deducted from the taxable base.
Income tax	Discount on investments made in environmental control, conservation and improvement. Deduction on investments made in control, conservation and improvement of the environment in tourism activities. Article 259-1 of the tax statute limits the deduction to 3% of its net income. Exempt income on investment in alternative energies - Clean Development Mechanism. 50% deduction for investments made in Non-Conventional Energy Sources - FNCE. 50% deduction for investments made in efficient energy management projects. Discount of 25% of the value of the investment certified by the National Authority of Environmental Licenses - ANLA. Article 259-1 of the tax statute limits the deduction to 3% of its net income.

46 Idem

VAT	Exclusion for the acquisition of goods related to the Environmental Control and Monitoring System. Exclusion for the acquisition of goods related to the Environmental Control and Monitoring System to comply with the commitments of the Montreal Protocol. Exclusion for the acquisition of goods related to the Environmental Control and Monitoring System for the development of recycling and garbage processing activities, among others. Exclusion for Agricultural and Other Sector Goods. Exclusion of domestic or imported equipment and services for FNCE projects. Exclusion for the acquisition of domestic or imported equipment and elements for the construction, installation, assembly and operation of Environmental Control and Monitoring Systems.
Property	Exemption for being owner or possessor of properties that develop flora conservation activities.

Source: Elaborated by the authors.

The impact that tax revenue generation and tax expenditure policies can have on GHG emission abatement, market failure correction, and environmental conservation requires a comprehensive and thorough assessment. There must be an official report of all the collection tools that both the national and subnational governments have in order to clearly establish the existence of failures in the achievement of environmental objectives and their impact in relation to the principles of horizontal and vertical equity. This impact should first focus on a few specific cases that are considered to have a high impact, which can then be extended to the remaining catalog that has been previously identified.

Fiscal Expenditures

According to ECLAC, subsidies have a long history in Latin American countries as they have been implemented for different purposes that lead to their perpetuation over time, disregarding the distorting effects they can have.[47] Some of the objectives of the subsidies are: (i) to promote behaviors that result in positive externalities or in the correction of practices that are harmful to society, (ii) to reduce the costs of investments aimed at a more responsible use of environmental resources, and (iii) to encourage companies to redirect resources to strengthen and correct their carbon footprint. However, many of the subsidies designed by these econ-

47 Lorenzo, F. (2016). Inventory of green fiscal instruments in Latin America: experiences, effects and scope | ECLAC

omies have distorting and even regressive effects, with environmental repercussions that make their revision one of the main axes of fiscal reforms with environmental objectives[48].

In the review carried out by the MHCP in 2019 and 2021[49] to the subsidy scheme, particularly those financed from the National General Budget (PGN), it is stated that most of them lack progressivity and present targeting and distribution problems. Some of the issues identified in this matter lie in the targeting criteria, which are assigned based on the socioeconomic level of the dwelling in which the beneficiary household lives, without comparing them against other socioeconomic dimensions such as income level, access to housing, level of education, etc. Proof of the above is reflected in the 2018 National Household Budget Surveys conducted by the National Administrative Department of Statistics (DANE), where it is observed that nearly 60% of households in the highest income deciles live in socioeconomic level 1, 2 and 3 housing; levels currently benefiting from the subsidies provided by the Government with economic policy objectives, and which given this reality, reflect the wide margin that the Government has to increase the progressivity of subsidies. To this end, the national government has strategies to remedy these targeting problems, such as the implementation of SISBEN IV and the launching of the Social Household Registry (RSH).

Subsidies such as gas or fuel subsidies, in addition to lacking progressivity, are classified as a fiscal intervention with a negative impact on the environment. According to ECLAC[50], most developing economies, including Colombia, between 2001 and 2013 had subsidies on fuel consumption that represented on average 1.4% of GDP, an amount higher than the total collection associated with activities related to climate change in the Colombian case. According to projections by the Autonomous Committee of the Fiscal Rule (CARF), the deficit for this concept at the end of 2022 was around 2.5 pp of GDP, an amount close to 50% of the investment expenditure budget programmed in the PGN for 2023, drawing attention to the size of this type of interventions and the fiscal effort they represent. In addition, more than 50% of fuel expenditure in Latin America is concentrated in the richest 20% of the population and these same quintiles spend a higher proportion of their income on fuel consumption for personal transportation, which reinforces the progressive effect that the revision of subsidies such as these would have[51].

In Colombia, the deficit of the Fuel Price Stabilization Fund (FEPC)[52] increased signifi-

48 Idem

49 Chapter 7 of the 2019 Medium Term Fiscal Framework and Explanatory Memorandum of Draft Law 2021 "whereby a fiscally sustainable equity infrastructure is consolidated to strengthen the poverty eradication policy, through the redefinition of the fiscal rule, the strengthening and targeting of social spending and the redistribution of tax and environmental burdens with criteria of solidarity and that allow addressing the effects generated by the pandemic and other provisions are enacted".

50 Lorenzo, F. (2016). Inventory of green fiscal instruments in Latin America: experiences, effects and scope | ECLAC

51 ECLAC (2015). Fiscal Panorama of Latin America and the Caribbean 2015. Dilemmas and spaces for public policies. https://n9.cl/47zb3

52 The FEPC was created in 2007 by Law 1151 of 2007 with the purpose of mitigating in the domestic market the impact of fluctuations in international prices of liquid fuels (ACPM and Regular Motor Gasoline-GMC). In this sense, when the local price (defined by the producer income-IP) is higher than the international price (parity price), a participation differential (FEPC income) is generated, while when international prices are higher, a compensation differential (expense) is generated. The dynamics between both prices, multiplied by the amount of fuel sold in the period, determines the net position of the fund. Therefore, the fiscal deficit of the fund is the result of adding the net position of the fund and the contributions made by the Central National Government (CNG), mainly.

cantly between 2021 and 2022, which is why the national government has taken actions to reduce the deficit and the associated environmental impacts. The increase in the FEPC deficit is mainly a result of a high international oil price, the level of global risk that affected the exchange rate of the peso with the U.S. dollar and the active stabilization policy adopted by the 2018-2022 administration, in which no sufficient increases were made to local fuel prices during 2021 and the first half of 2022. The National Development Plan 2022-2026 "Colombia, World Power of Life" establishes as priorities to advance in a just energy transition and achieve a better targeting of public spending. In line with the above, since October 2022, the MHCP, together with the MME, initiated a strategy of gradual and orderly adjustment of fuel prices to reduce the FEPC deficit. This active policy together with improved international macroeconomic conditions led the FEPC to go from a deficit of COP 36.7 trillion (2.5% of GDP) in 2022 to COP 20.5 trillion[53] (1.3% of GDP) in 2023. There is an urgent need to continue reducing this deficit considering the fiscal, redistributive, inflationary and environmental implications that it entails.

In terms of spending to finance the climate change strategy there are several sources, between 2011 and 2021 resources were mobilized for COP 24.3 trillion[54]. In Colombia, public, private and external actors have contributed to actions related to climate change mitigation and adaptation[55]. The DNP and Fedesarrollo[56] report shows that more than 70% of resource mobilization came from the public sector, with contributions of close to COP 18 trillion during the last decade. Public resources have diverse origins, the national level budget sector through its PGN has allocated about 37% of the total resources, while the territorial level, represented in the resources directed by the municipalities and departments, has allocated 46% and the SGR has directed 17% of the remaining resources for climate purposes.

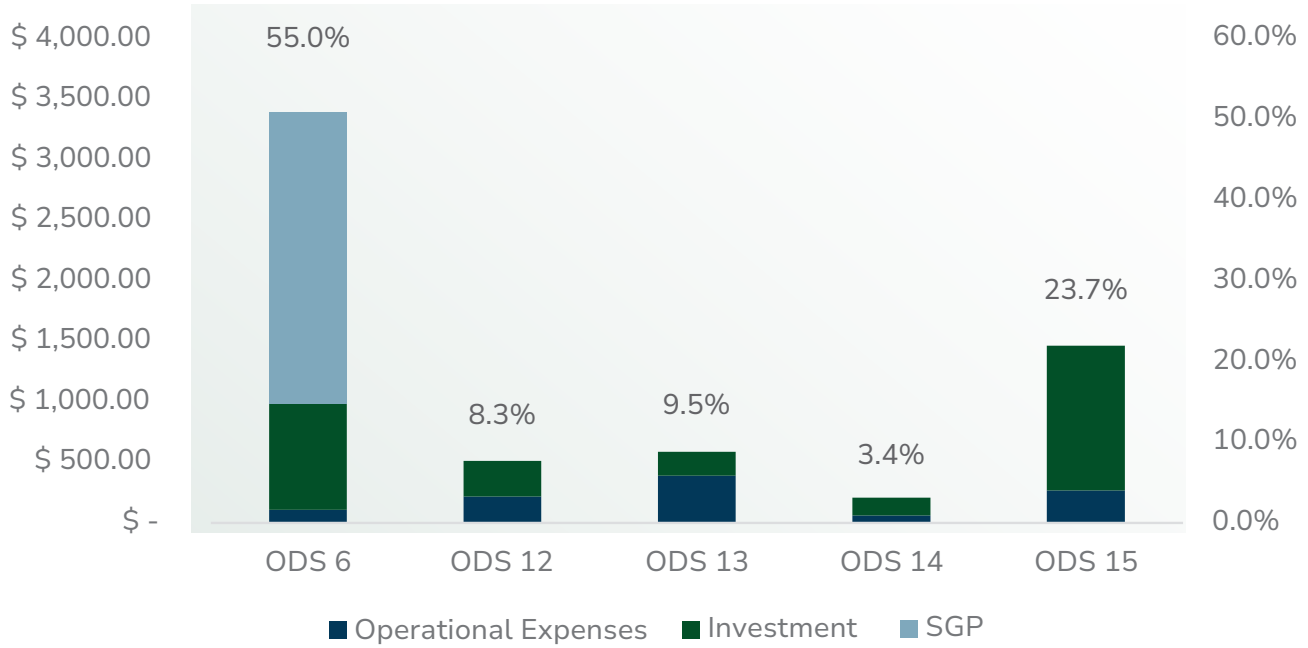
These resources, although significant, are not sufficient to meet the investment required by the country to comply with the climate change and biodiversity goals. The DNP and Fedesarrollo[57] report indicates that at least annual contributions equivalent to 1.2% of GDP are required for mitigation and adaptation projects, without taking into account the administrative costs that these may imply. On the other hand, the World Bank[58] states that the required financing needs should range between 1.1% and 1.5% of GDP. Taking into account the annual investment in climate change that has been made by 2021 (0.16% of GDP), there is still a long way to go and a gap of resources to be obtained. The efforts made in terms of expenditure may be greater than those identified so far, which leads to continue directing efforts to the process that the country has been carrying out in order to have a budget coding and marking structure that facilitates the identification of the items aligned with the purposes of the ENFC.

Colombia has a methodology[59] to identify the PGN 2021-2023 resources aligned to each

53 Estimated data.
54 National Climate Finance Strategy (2022) - DNP and Fedesarrollo
55 Idem
56 Idem
57 Idem
58 Colombia: Climate and Country Development Report 07/23 - World Bank Group "https://n9.cl/bl4mk
59 Aligning public budgets and other flows to SDGs: towards an SDG taxonomy | United Nations Development Program (undp.org)

sustainable development goal (SDG), of which the planet SDGs[60] add up to approximately COP 5.8 trillion in committed resources by 2023[61]. With this, Colombia joins countries such as the Philippines, Mexico and Paraguay that have SDG-based budgets. This will allow in the future to facilitate the prioritization of public resources towards programs that will have a greater impact on climate change, just energy transition and biodiversity (Figure 5).

Figure 5. **Resources distributed from PGN by SDG by 2023 (Figures in Billion Pesos).**



Source: INFF, UNDP, MHCP and DNP (2023)

In a nutshell, it is imperative to carry out an exhaustive analysis of the effects of the national and subnational public spending scheme on the environment, eliminating undesired distortions and in parallel seeking to comply in a cost-efficient manner with climate change and biodiversity goals. It is clear that the subsidy scheme requires a technical analysis to eliminate or redirect these resources to solve possible problems of progressivity, targeting and distribution. In addition, problems in the quality of information on spending not only prevent detailed monitoring of the execution of resources and prioritization of the programs with the greatest impact, but also constitute a disadvantage in attracting foreign resources focused on the fight against global warming. In this sense, the action plan on spending will seek to solve the problems of identification and verification of spending, as well as to correct the effects of subsidies in highly polluting sectors, using monitoring tools such as spending markers.

60 The planet SDGs are part of the 5 areas of sustainable development: People, Prosperity, Planet, Peace and Partnerships.
61 Estimates by DGPPN with UNDP support.

Action 4: Sovereign Sustainable Financing

The national government's financing strategy is based on a broad diversification of sources, borrowers, strategic alliances and local and foreign investors. The National Government uses three main sources of indebtedness: i) issuance of public debt securities in the domestic capital market through long-term and short-term Treasury Securities (TES), ii) issuance of public debt securities in the international capital market through the placement of global bonds and iii) loans with multilateral and bilateral development banks, without prejudice to other options that may arise in the markets and that are favorable to the Nation[62].

Financing challenges will require a joint effort by all stakeholders, especially the public sector as the articulator and manager of projects that will contribute to the fulfillment of environmental objectives, within the framework of a challenging international scenario. Global debt levels reached record highs, particularly in emerging and developing countries, which have not yet returned to pre-pandemic levels[63]. In turn, macro-financial conditions worsened in 2022 due to rising inflation, monetary tightening, geopolitical uncertainty and a general deterioration in the outlook for economic growth[64]. This led to an increase in capital outflows, which in turn led to a depreciation of currencies against the U.S. dollar, exacerbating the cost of external debt. This context represents an additional challenge for the fulfillment of environmental and climate objectives.

Colombia has implemented financing instruments to mobilize resources for climate change adaptation and mitigation and biodiversity conservation. The country has a Reference Framework for Green, Social and Sustainable Sovereign Bonds, which establishes, among other things: i) the procedure before and after the issuance; ii) the principles that the national government must follow for the selection, evaluation and management of resources; and iii) the guidelines for adequate reporting to investors. In 2021, Colombia made the first issue of sovereign green bonds in the local market, which were called TES Verdes and, in December 2023, the first auction of these bonds was held for a little more than COP 1 trillion, which obtained 9 bps of "green premium"[65]. The above, with the objective of contributing to the fulfillment of the country's environmental and climate goals and promoting the development of the local green bond market. In November 2023, the country issued for the first time a sovereign social bond for a total of USD 1.250 million in the international capital market, which reached a historical demand of 5.1 times the amount issued. The placement of green, social and sustainable sovereign bonds corresponds to an issuance program that will remain constant each year and requires a technical and administrative effort each year.

62 Sovereign green, social and sustainable bond framework https://www.irc.gov.co/webcenter/ShowProperty?nodeId=%2FConexionContent%2FWCC_CLUSTER-200712

63 OECD Sovereign Borrowing Outlook 2023 | en | OECD (oecd.org)

64 Idem

65 The "green premium" or the "greenium" is calculated as the difference in basis points between the conventional bond rate versus the green bond rate.

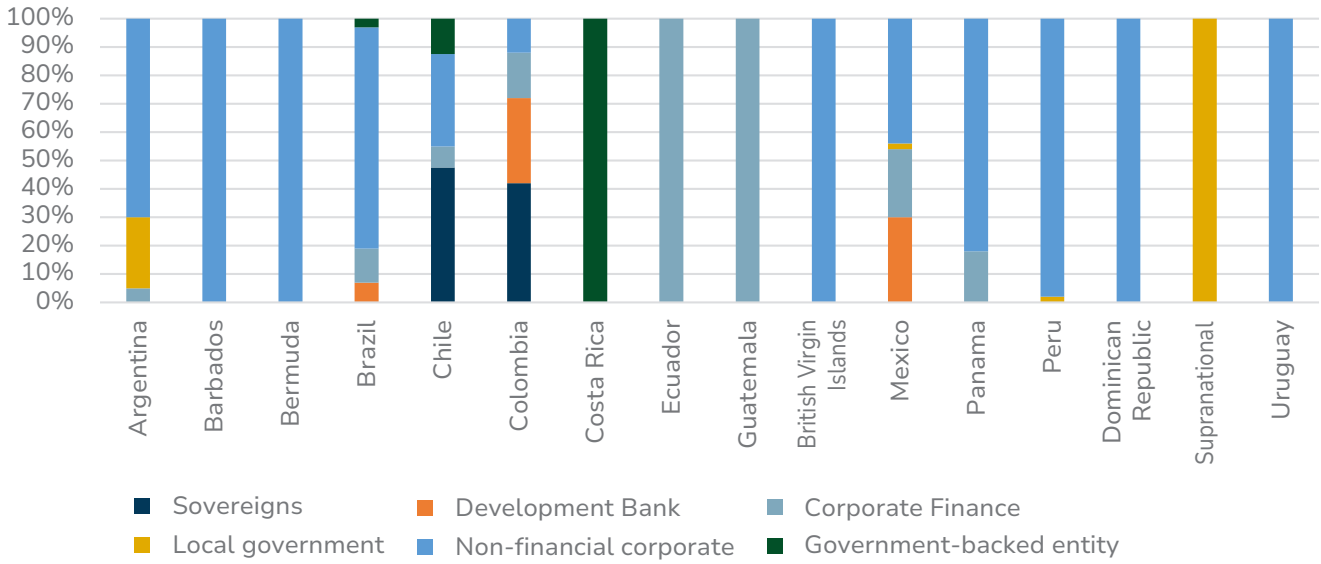
Table 4. Issuance of Colombian Sovereign Green Bonds or Green TES

	First auction	Second auction	Third auction	Fourth auction	Fifth auction
Placement date	29/09/2021	8/10/2021	27/10/2021	29/06/2022	14/12/2023
Date of issue (twin bonds)	March 26, 2021				
Amount (COP billion)	751	85.5	661	645	1,087
Coupon	7.00%				
Expiry	March 26, 2031				
Rate	7.56%	7.56%	7.88%	11.55%	10.06%
Bid to Cover[66]		4.6	1.5	1.0	3.7
Greenium or green premium	7 pbs	7 pbs	15 pbs	-0.5 pbs	9 pbs

Source: Elaborated by the authors

There is room to access new markets and increase the country's participation in bond issues focused on sustainable, social, and environmental issues. Colombia has a strong economic and financial reputation due to the country's fiscal strength and discipline. This is evidenced by investors' appetite for the financial instruments issued by the country and the comparatively favorable financial conditions under which they have been awarded.

Figure 6. Profiles of Green Bond Issuers by Country, 2022 (as a Percentage of Total Issued)"



Source: Climate Bonds Initiative

66 Indicator showing the level of demand in an auction, measured as the ratio of bids received to the amount placed.

The interest of the markets is also reflected in the desire for new instruments (Table 5**) that the country is open to evaluate.** An example of novel instruments are Sustainability-Linked Bonds, whose financial characteristics depend on the fulfillment of indicators defined by the issuer, which may result in a reward. If the issuer meets the targets, the coupon payment or interest rate may be reduced, but if the issuer does not meet the targets, the cost of the issue may increase. Indicators must therefore be credible, meaningful, high-impact, verifiable and objectively measurable, as well as comparable with market benchmarks. Therefore, Colombia must continue to evaluate the financial instruments it currently has and those it can develop to capture the appetite of investors for these types of products, improving the country's debt profile and expanding the sources of financing for environmental, climate and social objectives.

Table 5. Green, Social, Sustainable or Sustainability-Linked Sovereign Bond Issues (VSS+) in LAC as of Year-End 2022

Sovereigns of LAC		Total amount issued (in millions of USD)	Number of operations
Green (16%)	Chile	7,400	4
	Colombia	549.4	4
Social (39%)	Chile	18,500	12
	Ecuador	400	1
	Guatemala	500	1
Sustainable (38%)	Chile	6,500	4
	Mexico	7,700	9
	Peru	4,400	2
Sustainability-Linked	Chile	2,000	1
	Uruguay	1,500	1

Source: Climate Bonds Initiative

In conclusion, Colombia should seek to increase the share of sustainable bonds in its debt profile, as well as the innovation and development of new instruments to meet social and environmental objectives. Colombia has great environmental and market access potential, which makes the country a natural candidate for the use of financial instruments with the ideal characteristics to meet environmental and social objectives. Therefore, Colombia must continue on the path of strengthening investor confidence, which will lead to new participants and open the door to other entities at the national or subnational level to these markets.

Action 5: Risk Management

Public financial management and administration has articulated within the policy decision scheme the coverage, mitigation and adaptation of the economies to risk events. Climate change could trigger significant physical risks, both acute and chronic. In the case of acute changes are the distribution patterns and magnitude of precipitation (rainfall and droughts), sea level rise, hurricanes, fires, etc., while chronic changes are persistent changes in temperatures with structural impacts on the health and welfare of the population. On the other hand, the adjustment process towards a lower GHG emission economy, caused by changes in environmental mitigation policies (such as carbon taxes, emission caps and tradable permits, subsidies, etc.), technological changes (especially in the energy and transportation sectors) and adjustments in consumer preferences, give rise to what the literature calls transition risks[67].

There is an increasing likelihood that the risks associated with climate change and biodiversity loss will be wide-ranging and will affect all actors and sectors of the economy. Due to its geographic location, several studies find that Colombia has a high exposure to increasing temperatures, as well as to decreases in precipitation that would intensify throughout the century and to increasing economic costs of acute climate-related events[68]. Furthermore, Colombia is exposed to a high transition risk due to the significant share of mining and energy activities in external current revenues (37% between 2000 and 2020), in tax revenues (7.6% between 1995 and 2020, which reached 17% between 2012 and 2014)[69] and faces an additional challenge on what to do with investments in the sectors subject to transition, commonly referred to as stranded assets.

According to the Swiss Re Institute index, Colombia's GDP dependence on ecosystem and biodiversity services is high (0.54 out of 1).[70] The global economy depends on essential natural services to maintain its well-being and resilience. These crucial services, referred to as biodiversity and ecosystem services, encompass functions such as ensuring a stable food supply, safeguarding water resources and regulating air quality in local environments, among many others. Countries with a high direct GDP dependence such as Colombia on biodiversity and ecosystem services should immediately address the potential disruption of these services to the economy and the financial system.

Physical Risks

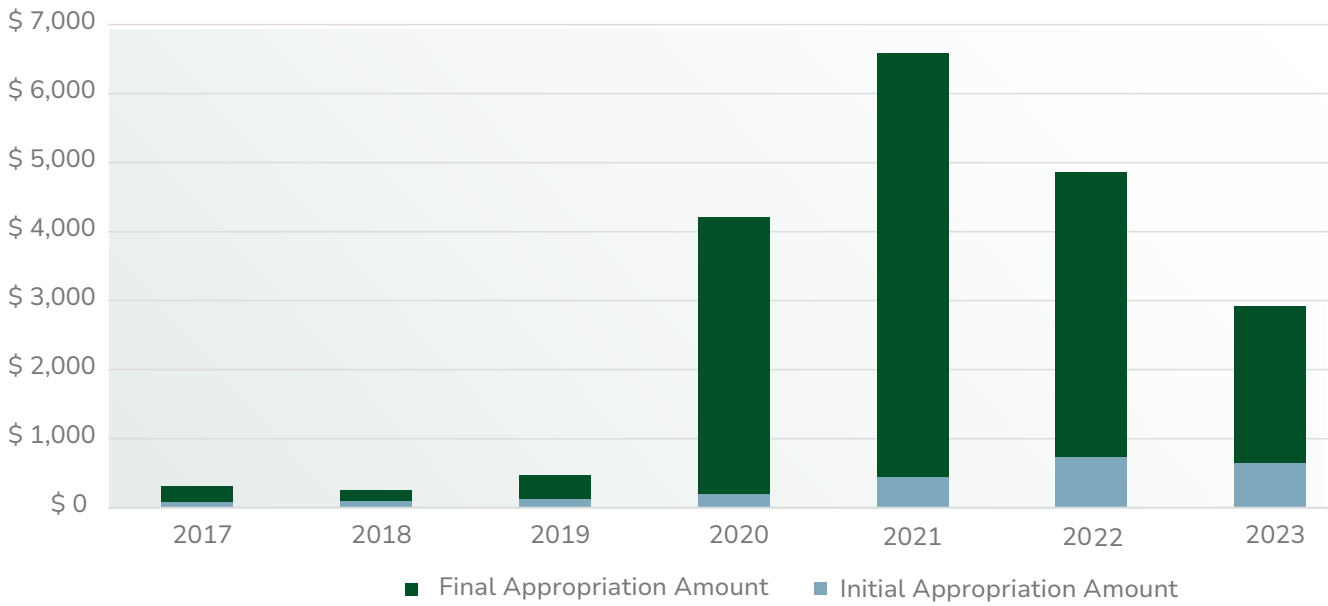
Colombia stands out for being a benchmark country in the design, development and implementation of policies aimed at mitigating the impact derived from the occurrence of disasters. The country has a National Policy

67 Essays on Economic Policy: Macroeconomic Impact of Climate Change in Colombia (2022) - Central Bank. Espe102.pdf (banrep.gov.co)
68 Economic impacts of climate change in Colombia. Synthesis (cepal.org)
69 Essays on Economic Policy: Macroeconomic Impact of Climate Change in Colombia (2022) - Central Bank. Espe102.pdf (banrep.gov.co)
70 One-fifth of the world's countries are at risk of ecosystem collapse as biodiversity declines, a Swiss Re index reveals. https://n9.cl/pq031

for Disaster Risk Management, which introduces disaster risk as a factor to be considered at the different levels of the Colombian State, as well as the relevance of its management and mitigation. This is complemented and reinforced by the National Strategy for Financial Protection against Disasters, Pandemics and Epidemics, which sets out the phases in which disaster risk should be managed from a financial and fiscal perspective. The third policy and governance document is the National Disaster Risk Management Plan, which defines the programs, actions and budgets that will support the policy. Finally, within the capillarity of policies, there is the Financial Protection Strategy. The implementation of financial protection strategies allows access to immediate funds to address emergencies and provides the necessary resources to advance the rehabilitation of essential and vital services for the affected population and later for reconstruction.

The MHCP is responsible for guaranteeing resources for disaster relief and managing financial instruments to mitigate its fiscal impact. With respect to the first task, it ensures that the National Disaster Risk Management Fund has sufficient resources to support national and territorial entities in their risk awareness, prevention, mitigation, response, recovery, rehabilitation and reconstruction efforts to face disaster situations. Figure 7 shows the initial and final appropriation of these resources by the National Unit for Disaster Risk Management over the last 7 years. Budgetary additions to the UNGRD are generally approved in the context of emergencies caused by natural events. For example, in 2022, more than COP 2 trillion were approved thanks to Decree 2113 of 2022, which declared a national disaster situation for a period of 12 months as a result of the La Niña phenomenon experienced during the year.

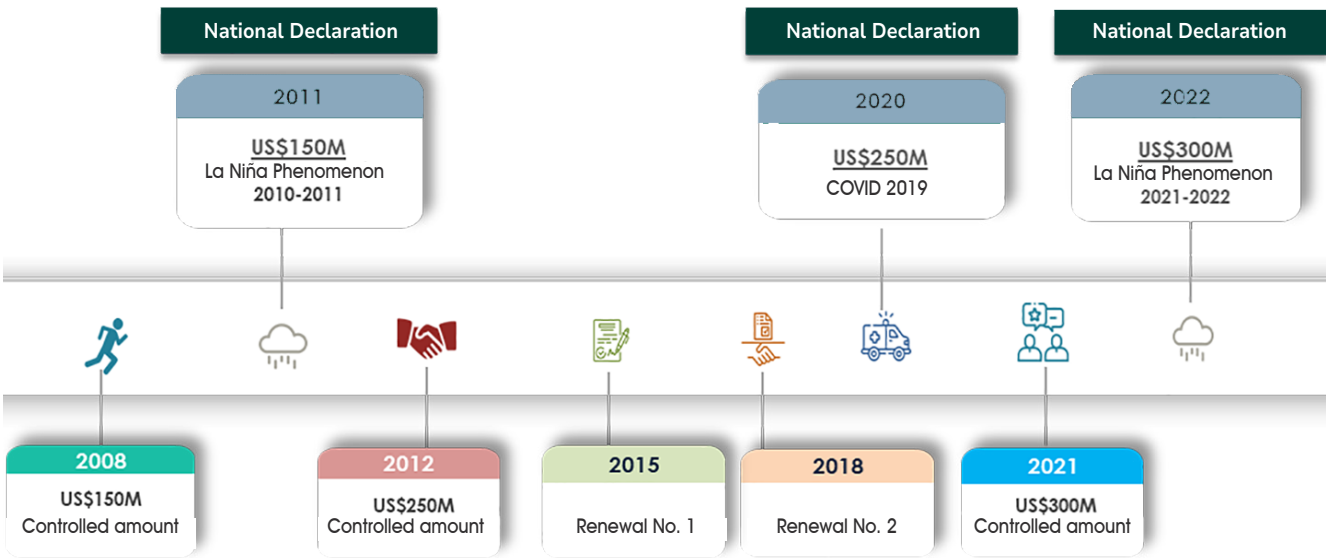
Figure 7. **Appropriations and Budget Additions of the UNGRD (in Billion Colombian Pesos)**



Source: National Unit for Disaster Risk Management Budget Closing Reports
Note: Budgetary Additions refer to those current transfers approved at times subsequent to the initial allocation of resources.

It is important to develop these capacities at the territorial and sectoral level, based on the experiences of the national government, for a more effective compliance with the Policy. The application of current policies has led to the implementation of instruments that have been aligned with risk mitigation, retention and transfer purposes, such as CAT DDO loans. These loans consist of an immediate disbursement that countries subscribe to in advance in order to be financially prepared in case of natural or epidemiological events of high impact. CAT DDO loans are activated and disbursed following an official declaration of a state of public calamity, in accordance with national legislation (Figure 3). Despite the robustness of the framework supporting disaster risk management, the next step is to achieve the development of a disaster risk management fabric at a more detailed level, extending to other sectors, territorial entities and the development of adaptation strategies and instruments.

Illustration 3. National CATDDO Experience



Source: Mid-Term Fiscal Framework 2023

The availability of information and loss assessment models for climate-related events, as well as the measurement of the liabilities that may be generated, is of high importance for the country. Colombia is highly exposed to the occurrence of natural events that imply significant economic shocks. The measurements taken at the national level have made evident the risk management that has been implemented, together with the series of policies and guidelines established and the contracting of financial instruments that have allowed for a diversified and innovative portfolio that takes into account the retention and transfer of fiscal risk. This information and models are evidenced in the Medium-Term Fiscal Framework (MTFF), in

which the projections of the economic impact of catastrophic events or disasters are indicated. For the year 2023, for example, it was estimated that the risk of events associated with floods and droughts would lead to a contingent fiscal cost of 1.4% of GDP should they materialize.

The Inter-American Development Bank estimated[72] that globally, the occurrence of at least one extreme weather event is associated with an increase in the fiscal deficit of 0.8% of GDP for middle/low income countries and 0.9% of GDP for low income countries. In the case of Colombia, the DNP calculated that, if the country does not adapt to climate change, GDP would be 0.49% lower each year than in a scenario without climate change [73]. These figures may imply greater spending pressure and the very possibility of dealing with weather events in a timely manner. The construction of this data is crucial for risk management and therefore should be developed not only at the national level, but also at the territorial and sectoral levels.

Enabling the supply of financial instruments for risk management of territorial entities is one of the commitments of the national government. With the objective of promoting innovation in financial instruments for climate risk management, Law 2294 of 2023 "National Development Plan 2022-2026, Colombia, World Power of Life" legally enables the offer of parametric insurance for activities other than agriculture. The proliferation of this type of products may allow the implementation of climate risk transfer schemes at the municipal level, since the previous legal framework was not sufficiently clear regarding public institutions and private companies offering these products[74].

At present, the supply of and access to these instruments is scarce; however, if key players in the public scenario are brought together, an innovative and profitable process for the country can be configured. The Financial Superintendency of Colombia (SFC) and the Financial Regulations Studies Projection Unit (URF) are two key players within the Fiscal and Financial Policy to cement the guidelines that will guide the Fiscal and Financial Policy in the design and introduction of these tools. On the other hand, the Development Banks, due to their high insertion in the execution of public policies at the territorial level, will be able to increase the offer of financial products that contribute to the transfer of fiscal risks and costs at the sectoral and territorial level.

Adequate disaster risk management requires methodologies, models and instruments that adapt and evolve to the different phenomena that affect the country. This means that these processes cannot be rigid and inflexible, even more so in a country with a complex geography and high biodiversity. Therefore, it is necessary that the MHCP, leader of the Finance sector, promotes the processes of updating and implementation of methodologies for the valuation of contingent liabilities for disaster risks, which must be accompanied by the construction of processes of parameterization and instrumentalization of the information. These

72 What are the fiscal risks of extreme weather events and how to cope with them? - Fiscal management (iadb.org)
73 Economic impacts of climate change in Colombia - National Department of Planning
74 Fernández Lopera, C.C., Mendes, J.M., Barata, E.J. & Barragán Rojas, Y.A. (2023). Climate Risk Transfer Public Policies: An Analysis of the Colombian Case. Journal of Latin American Studies on Disaster Risk Reduction REDER - "RT_PPs_Col_REDER_2023.pdf (uc.pt)"

processes must be disseminated to the territorial and sectoral level, always accompanied by the national level, which will promote technical assistance channels for this purpose. Finally, this entire process should be supported by the implementation of financial protection strategies to protect against disaster risks through innovative financial instruments that are easily accessible to the different government units.

Macroeconomic Risks of Energy Transition and Biodiversity Loss

The transition towards the generalized use of renewable energies is a reality and the impact it will have on the country will be weighted by the role of oil and other non-renewable natural resources (RNNR), as well as the speed of adjustment of production processes to cleaner economic models. Therefore, in the construction of national plans aimed at carbon neutrality it will be imperative to include the macroeconomic risks of implementing the different green actions. These risks will be closely related to the ex-ante vulnerability of the country's economic and fiscal context and will originate in environmental policy on productive activity, technological changes in the productive sectors and adjustments in consumer and investor preferences.

The costs of accelerated decarbonization in the mining and energy sector viewed from a fiscal perspective may lead to an eventual reduction in revenues. The National Government faces the risk of a decrease in revenues associated with the exploitation of fossil fuels due to lower tax payments by companies in the hydrocarbon sector, as well as lower dividend transfers from state-owned companies involved in these activities, in the event that the diversification and transformation plans of the companies are not successful. Declining volumes and early closure of mining, oil, gas and industrial plant activities would not only create a challenge for local employment and economic activity, but also for the financing of local governments, which rely on royalties and direct taxes for a significant portion of their budgets. At the same time, Chapter 4 of this document refers to the possible scope that the transition will have on subnational finances, including royalty collection, and Chapter 5 delves into the transition strategy for state-owned enterprises.

From a macroeconomic perspective, there is a broader spectrum of potentially affected variables, where climate change will represent a threat to certain sectors and an opportunity for expansion for others. According to Benavides, Cabrales & Delgado[75], the transformation of the energy matrix would present cost overruns for both the producing regions and the rest of the country. For example, the replacement of energy produced by gas and coal with wind technology, maintaining the same generation volume, would cost COP 163.3 trillion by 2035[76]. In the scenarios of clean investment adoption under low profitability conditions, the loss of efficiency in gross fixed capital formation could generate a reduction in GDP of COP 45.1 trillion between 2023 and 2030[77]. However, if timely actions are taken to address this transition, economic and

75 Benavides, J., Cabrales, S., & Delgado-Rojas, M. E. (2022). Energy transition in Colombia: policy, cost of carbon - accelerated neutrality and the role of natural gas (fedesarrollo.org.co)
76 Idem
77 Idem

social opportunities may present themselves. The transition presents the opportunity to increase the number of jobs in the world, according to the International Energy Agency (AIE) it is estimated that in the transition to net zero, 14 million new jobs will be created by 2030 by investments in clean energy, but employment in oil, gas and coal decreases by about 5 million[78], which would result in a net increase of 9 million global jobs in the energy industry. Other potential benefits of the transition include reducing the social and environmental costs associated with fossil fuels and the public health impacts of air pollution[79].

If action is not taken to address the energy transition, in the external sector there could be a drop in income from hydrocarbon exports, accompanied by lower foreign direct investment (FDI) in the exploitation of these resources. Mining and energy revenues accounted for just over 37% of current balance of payments revenues between 2000 and 2020, so the fall in these revenues could put upward pressure on the current account deficit of up to 0.2pp of GDP per year from 2030 onwards[80]. Under an energy transition scenario, FDI to these sectors may be affected, which would affect the country's external financing capacity, leading to a correction of the current account deficit through lower economic growth and lower imports. Despite these potential impacts, the energy transition may represent an opportunity to attract FDI in sectors related to renewable energy, the development of new industries in the country and the strengthening of existing ones.

In the monetary and financial sector, it is found that transition risks could generate volatility in the price level, as well as instability in the financial system. The costs and losses generated by both climate change and the energy transition, in productive sectors with greater transmission to the banking system, could have an impact on the stability of the financial system, especially due to the deterioration of the risk quality of the portfolio[81], as well as on inflation levels due to the effects on energy prices. This leaves an uncertain outlook for the Central Bank and the Financial Superintendence, which will have to evaluate the scope of monetary policy decisions and prudential measures, respectively, on the transition scenarios.

Colombia's GDP depends to a large extent on nature and its ecosystem services. Based on analyses carried out by the MHCP team with the support of UKPACT and UNEP-WCMC on the dependence of GDP on ecosystem services, it is estimated that at least 48% of Colombia's GDP is generated in industries that depend directly on nature and its services. These industries are exposed to the potential risks that would result from a continued degradation of nature, which could also have a significant impact on the livelihoods of people working in sectors that are highly dependent on nature or whose livelihoods could be affected by a deterioration of the ecosystems they inhabit.

78 AIE, (2021). Net Zero by 2050: A roadmap for the global energy sector. https://www.iea.org/reports/net-zero-by-2050
79 Vohra et al., (2021). Global Mortality from Outdoor Fine Particle Pollution Generated by Fossil Fuel Combustion: Results from GEOS-Chem' Environmental research 195, 11754
80 Bernal-Ramírez et al., (2022). Macroeconomic impact of climate change in Colombia. Essays on Economic Policy (ESPE). Espe102.pdf (banrep.gov.co)
81 Idem

Despite the potentially destabilizing fiscal and macroeconomic consequences of the transition and biodiversity loss, the national government can take a number of steps to address these risks. One example is the national reindustrialization policy[82] led by the Ministry of Commerce, Industry and Tourism, which seeks to move from an extractivist economy to a knowledge-based, productive and sustainable economy that allows for economic and export diversification. On the other hand, the Fiscal and Financial Policy seeks to advance in the identification and quantification of the macroeconomic and fiscal effect of the energy transition and the loss of biodiversity. This analysis should be incorporated into short and medium-term fiscal planning instruments such as the medium-term fiscal framework, annual budgets or the fiscal rule. Likewise, integrating climate and environmental risks into the macroeconomic models on the basis of which the MHCP's prospective analyses are carried out will be essential to mitigate these risks. Risk management will be effective to the extent that public policy formulation, regulation and investment decision-making incorporate an understanding of the risk of climate transition and biodiversity loss in a systematic and, where possible, coordinated manner.

Action 6: Institutionality

Having a clear institutional framework makes it possible to define strategies and coordinate policies to address the climate crisis and biodiversity loss in a comprehensive and sustainable manner, both at the inter-sectoral level and within each of the entities of the Finance sector. In this line, the progress and steps to be taken in the medium and long term to incorporate climate change and biodiversity objectives into the institutional framework of the Finance sector are presented.

Institutional Strengthening

Different countries have prioritized technical and/or administrative units responsible for climate change and biodiversity management within their ministries of finance or finance ministries. For example, Brazil has a sustainable development financing office, Peru has a sustainable economy directorate for productivity and competition, and Argentina has a sustainable finance unit. In the case of Colombia, it is pending review whether the current arrangement, in which the technical areas assume climate change issues as part of their daily tasks, meets the needs or whether it is necessary to have a specific unit. The evaluation should include: diagnosis, relevance, structure, responsibilities and objectives, among others.

Having an institutional structure allows effective and comprehensive management of climate and environmental challenges, where climate considerations are a central axis in decision making. Some of the tasks generally performed by these offices include: effectively coordinating fiscal policies and actions to address climate change and biodiversity loss; coherent and strategic planning for climate and environmental issues; and supporting the proper reflection of climate budget integration.

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The development of the tasks associated with climate and environmental action requires constant training of the teams in charge. For the design and implementation of green activities, the technical, human and management capacities of the teams in charge must be strengthened. While the knowledge required may change from case to case, some cross-cutting concepts such as climate change economics and other sectoral issues such as energy transition or land use will be necessary for the responsible teams. It should also consider strengthening technical competencies to formulate national strategies, plan investments and design fiscal and public policy measures, among others[83].

Environmental Performance of the Ministry of Finance and Public Credit and its Affiliated Entities

The Ministry of Finance and Public Credit has a responsibility to reduce its carbon footprint and has initiated actions for such purpose. In 2019, the MHCP joined the District Environmental Excellence Program (PREAD)[84] whose objective is to recognize entities and companies, both public and private, for their excellence in environmental performance and corporate social responsibility with an environmental focus in the development of their activities. Between 2020 and 2023 the MHCP (Table 6) received multiple awards for its environmental performance. As a result of these actions, the MHCP established an Environmental Sector Roundtable to strengthen the generation of social-environmental responsibility projects and good environmental practices in the entities of the Fiscal and Financial Policy. In addition, the entities of the Ministry of Finance and Public Credit have developed the following actions:

- Investment Central - CISA focused its environmental management on implementing programs for the rational and efficient use of energy and water, reduction of paper consumption and integrated solid waste management. It also improved its processes within the framework of legal compliance in environmental terms, ensuring that the company's operations comply with the environmental policy of respect for the environment and the reduction of negative impacts on the environment.
- National Development Promoting Company - ENTerritorio achieved a reduction in energy consumption of 64.71 Khw per person, and was recognized in the PREAD Environmental Excellence category.
- The National Savings Fund installed 90 ecological points for waste storage and 2,505 trees were planted. In addition, water consumption was reduced by 37% and energy consumption by 58% per person.
- The Colombian Institute of Educational Credit and Technical Studies Abroad "Mariano Ospina Pérez" - ICETEX adopted the Code for Good Governance and the Institutional Social Responsibility and

83 Coalition of Finance Ministers for Climate Change - Strengthening the Role of Finance Ministries in Driving Climate Action - A Framework and Guidance for Finance Ministers and Ministries. Final Report 06/2023.

84 Program of the District Secretary of the Environment as a mechanism for annual public recognition of companies located within the urban perimeter of the Capital District that stand out for their environmental performance and corporate social responsibility with an environmental focus. It is a free program where companies voluntarily access demonstrating their commitment to environmental sustainability, it is regulated under Resolution 00313 of 2022. https://www.ambientebogota.gov.co/pread

Sustainability Initiative - IRSSI. Climate change mitigation, zero paper and sustainable public procurement policies are being implemented.

- La Previsora S.A. has an Institutional Environmental Management Plan (PIGA) for the efficient use of resources, 1,619 conventional lighting fixtures were replaced with LEDs, 4,879 kg of usable waste were recovered, the use of paper was reduced by 10% with respect to 2021, 50 trees were planted in Canoas Park, the use of environmentally friendly transportation was encouraged through the allocation of 144 parking spaces and showers for employees. Under the energy efficiency program, 39 awareness and training activities were carried out for employees, customers and suppliers.
- Banco Agrario de Colombia S.A. planted close to 115 thousand native trees in 850 municipalities, offset 32% of the direct carbon footprint, equivalent to 2,440 tons of CO2 and established the baseline for the 158 CO2 emissions generated by the loan portfolio.
- Financiera de Desarrollo Territorial S.A - FINDETER has had an Environmental Management System - EMS certified by ISO 14001:2015 since 2018. Environmental programs for the efficient use of water, energy and paper are highlighted.
- Financing Fund for the Agriculture Sector - FINAGRO achieved recertification in the ISO14001 EMS standard, there was an annual reduction in water consumption of 76% (from 10,171 m3 to 2,397 m3) and energy consumption was reduced by 13% (total of 132,395 kWh in 2022) and 92% of the paper consumed was recycled.
- National Guarantee Fund - FNG through the campaign “We work from the heart, we are eco-environmental” seeks to raise awareness and reduce the consumption of water, energy and paper. The facilities have energy and water optimization systems such as sensor faucets, automated water saving systems, motion sensors and biodegradable cartridges that do not consume water and do not pollute. Regarding comprehensive waste management, specifically paper, a project was implemented to migrate and update its document management system.
- Livestock Development Trust Association - FIDUAGRARIA has an environmental policy based on the pillars of the proper classification of solid waste, as well as its proper disposal and delivery to recyclers and the zero paper culture, which has contributed to a 4% decrease in paper consumption.
- Foreign Trade Trust - FIDUCOLDEX has carried out actions focused on saving and optimizing energy and water resources; actions have been taken on waste disposal, recycling and collection of electronic devices. In 2022, sustainability criteria were incorporated to mitigate the impacts of climate change in contractual procedures and the implementation of ecological points in the entity’s facilities.

Table 6. MHCP Awards for Environmental Performance

Year	Recognition
2020	Third best category for the Casas de Santa Bárbara site at PREAD
2021	Second best category for each of its sites in the PREAD
2022	Best "Elite Recognition" category for each of its PREAD sites. As an additional recognition, it was awarded for obtaining the second best score among 254 public and private companies.
	Recognition for its commitment to energy sustainability by the PRO-REDES program for the expansion of the energy matrix with a photovoltaic energy system and automation of the rainwater treatment plant.
2023	"Augusto Angel Maya" award in recognition of the environmental education program for the 2022 fiscal year, for the inclusion of tools and methodologies that increased the environmental management and knowledge of public servants. This program has succeeded in fostering awareness, interest and new behavioral patterns.

Source: Elaborated by the authors

Only a collaborative and sectoral approach may tackle the climate crisis. It is evident that in the Finance Sector there is a commitment to mitigation measures and goals which are reflected in the actions implemented in each entity. However, in order to face the challenges ahead and ensure a more sustainable and prosperous future, it is necessary to strengthen the coordinated work of the Environmental Sector Roundtable in order to strengthen the generation of social-environmental responsibility projects and good environmental practices in the sector's entities.

COLOMBIA POTENCIA DE LA VIDA

Hacienda

4. Strategy for Subnational Governments

Territorial entities need to have tools that allow them to incorporate the fiscal impacts of the energy transition in their short, medium and long term estimates. The gradual reduction of activities that generate Greenhouse Gases (GHG) or the eventual drop in the exploitation of fossil fuels will lead to a possible reduction in income from royalties, which would have disparate effects throughout the country. In addition, there is a need to update the calculation of contingent liabilities associated with environmental phenomena of the territorial entities, which may contribute to their management and follow-up. In this context, the national government will accompany the municipalities and departments to build comprehensive financial and fiscal tools that include the projection of income and expenses in the face of the impact of climate change and the loss of biodiversity in the country. Bearing in mind the major stakes sought in the strategy for subnational governments, the following are the lines of action of the PIGCCSH+B on this front.

Action 7: Subnational Fiscal Planning

The consolidation of information on territorial finances would allow for a diagnosis to analyze and manage the risks and vulnerabilities of the different regions in the face of the effects of climate change and biodiversity loss. The financial and fiscal situation of the departments, districts and municipalities includes the behavior of their own revenues and those coming from intergovernmental transfer systems (including the General Royalties System). Expenditures may be specifically earmarked for issues associated with environmental objectives or may be required in the event of climatic events. For an adequate management of the risks associated with climate change and biodiversity loss, it is necessary that the territorial entities, together with the corresponding environmental authorities, such as the CARs, have a complete and official identification of all the income and expenses associated with the different green activities in order to evaluate their efficiency.

Territorial Taxes

Land taxes are one of the main sources of financing for environmental management and protection. During the 2016-2020 period, the CARs, which are mostly financed from territorial taxes such as the environmental surtax, contributed 48% of the SINA's total resources. SINA's income from the environmental surcharge during this period averaged COP $1.14 trillion annually and COP $165,000 million from the different fees, fines and contributions. Table X shows the different sources of income in 2022 for CAR Cundinamarca, which is the largest in the country, and the share of each of them in the total.

Table 7. CAR Cundinamarca Revenues Corresponding to the Different Taxes and Territorial Fees for the Year 2022

Current income 2022	Value in billions	Percentage of current revenue
Tax Revenues	**46.87**	**5.15%**
Environmental Surcharge	46.87	5.15%
Other Non-Tax Revenues	**862.68**	**94.85%**
Administrative Fees And Duties	**70.34**	**7.73%**
Retributive Rate	58.17	6.40%
Water Use Rate	6.57	0.72%
Evaluation Of Environmental Licenses And Procedures	4.27	0.47%
Monitoring Of Environmental Licenses And Procedures	0.21	0.02%
Compensatory Fee For Permanent Use Of The Eastern Woodland Of The Bogotá Forest Reserve	1.003	0.11%
Forest Harvesting Fee	0.11	0.01%
Compensatory Fee For Wildlife Hunting	0.004	0.0005%
Other Income	**792.34**	**87.11%**
Current Transfers	639.15	70.27%
Environmental Fines	126.63	13.92%
Contributions	17.19	1.89%
Sale Of Goods And Services	9.36	1.03%
Total Current Income	**909.55**	**100%**

Source: CAR Cundinamarca's budget execution report (2022)

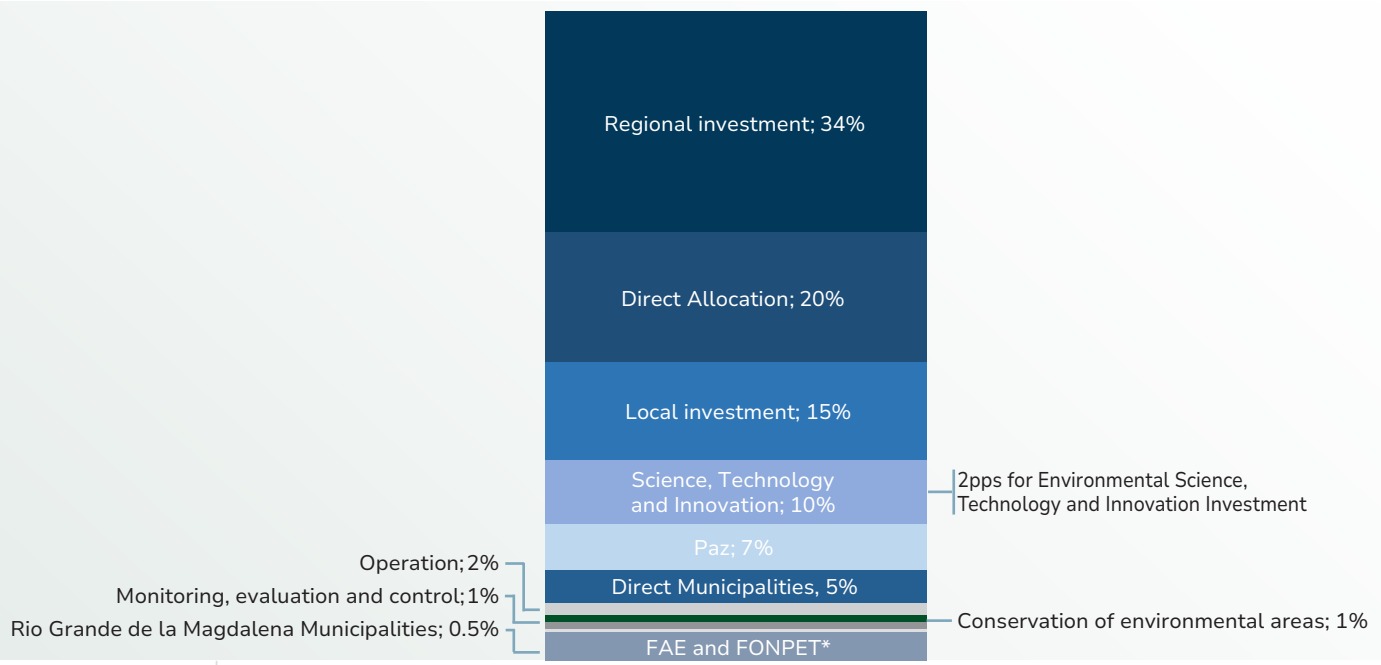
In order to guarantee a decentralized, democratic and participatory environmental management[85], it is important to understand the complete ecosystem of economic and financial incentives of the different entities that are part of the SINA. A recurrent financial instrument used to deal with environmental issues is to impose compensatory and retributive taxes[86] that seek to internalize negative externalities. However, there is room for improvement in the use of these instruments in terms of their requirements[87] as well as in the use of resources in an articulated and strategic manner. Therefore, efficient resource management must consider how and in what percentage the revenues generated today under the polluter-pays principle contribute to meeting the country's climate and biodiversity objectives.

85 Law 99 of 1993 Art. 1
86 Law 99 of 1993 Art. 42
87 Compliance Audit Report, CGR-CDMA No 039, December 2022

Resources of the General Royalties System

The distribution of revenues from the exploitation of non-renewable natural resources (RNNR) in Colombia is determined in accordance with the General Royalties System (SGR), which delimits the allocation of royalty collection into components with environmental, social and economic objectives (Figure 3). Specifically in environmental matters, Legislative Act 05 of 2019, regulated by Law 2056 of 2020 in Article 22, included guidelines for the distribution of resources towards the conservation of environmental areas and for environmental purposes in local investment and in science, technology and innovation. Along these lines, the biennial budget of the SGR for 2023-2024 establishes resources of $29 trillion, of which approximately $1.4 trillion will be allocated to investment projects with an impact on the environment, conservation of strategic areas and sustainable development. Likewise, 20% of the increased royalty collection[88] will be allocated to the conservation of strategic environmental areas and the national fight against deforestation. On the other hand, 5% will be allocated to entrepreneurship and employment generation that will progressively allow local labor to be employed in economic activities other than the exploitation of non-renewable natural resources. Priority will be given to the rural agricultural sector, tertiary roads, electric power and women's entrepreneurship.

Illustration 4. **Distribution of SGR**



**Corresponds to the remainder of the SGR income.*
Source: Law 2056 of 2020

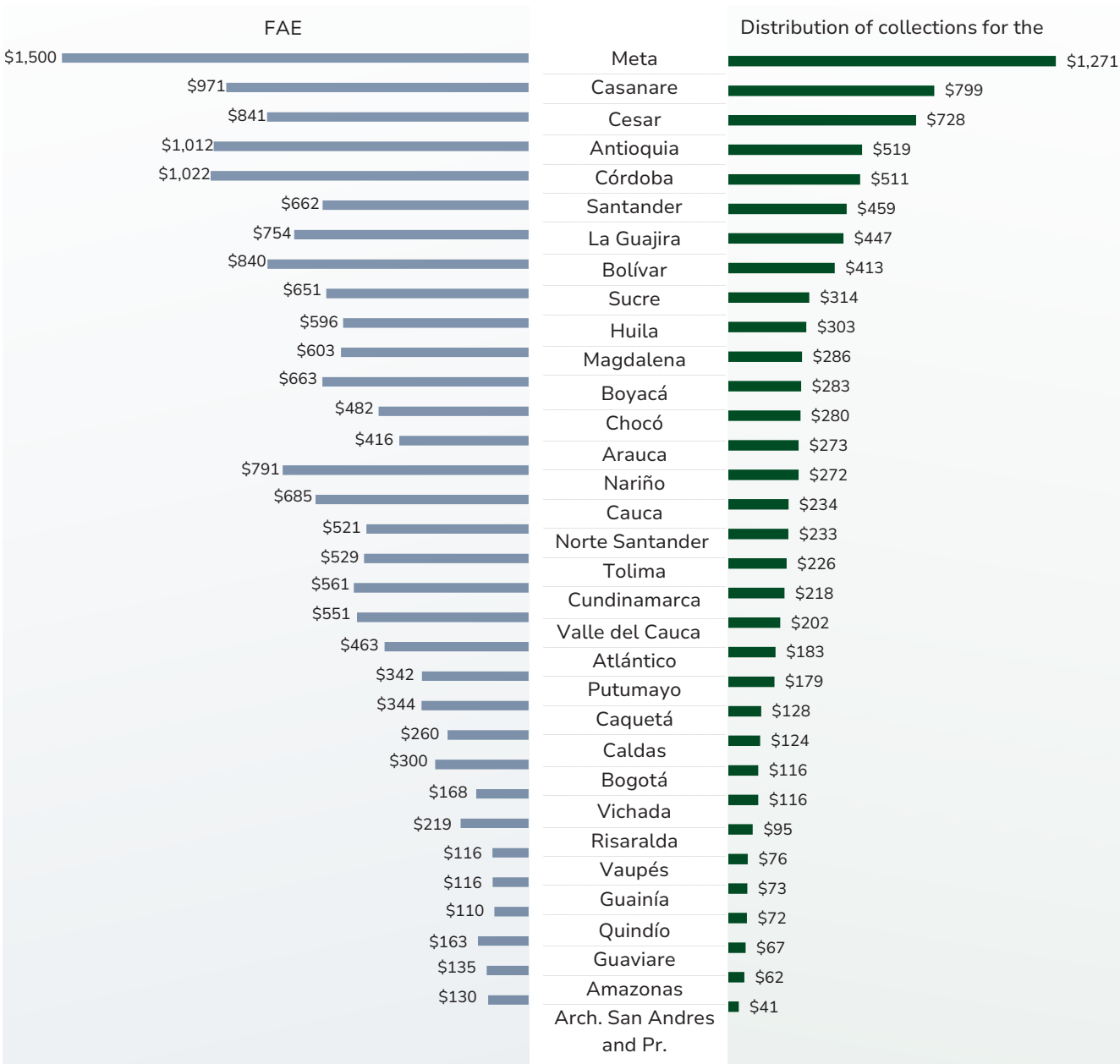
88 Corresponds to the difference between the current income from the exploitation of non-renewable natural resources budgeted for the biennium and the amount actually collected in the Single Account of the General Royalties System.

There is an opportunity for projects approved with royalty resources to be directed mainly to initiatives whose purpose is productive transformation, energy transition and biodiversity conservation. The SGR has the potential to be a policy instrument to redirect resources from the exploitation of fossil fuels that have a negative effect on the environment towards actions that seek to redress the damage to nature and contribute to the sustainable development of the regions. However, this is not the case, as evidenced by payments made by sector in the 2021-2022 biennium, where projects in the environment and sustainable development sector accounted for only 4.6% of the total, while projects in the transportation sector accounted for 35.3%, housing, city and territory for 14.5% and education for 13.2%. In fact, among the projects with the most resources allocated in recent years are those related to the construction of highways and roads, as well as the adaptation of hospitals and other buildings for public use[89]. In this sense, although such investments are fundamental to lay the foundations for productive development, it is important to ensure that these projects incorporate sustainability and climate resilience criteria and strengthen the structuring of projects aimed at halting deforestation and protecting areas that provide ecosystem services.

The disparate effects on the revenues of the Territorial Entities (EETT) require tools from the Fiscal and Financial Policy that allow them to incorporate the fiscal implications of climate change and biodiversity loss in their projections. The departments of Meta, Casanare, Cesar, Antioquia and Cordoba were the main recipients in the 2021-2022 biennium, with resources totaling COP 3.8 trillion of the COP 9.6 trillion distributed among governments and municipalities for this period (Figure 8). This scenario is different from that faced by the departments of San Andres and Providencia, Amazonas, Guaviare, Quindio and Guainia, which have a low distribution of royalties and may have fewer resources to face the transition. If we add to this the fact that some of the country's strategic ecosystems are located in these territories, it is urgent to think of additional measures to help finance their transition.

<?> DGPM-MHCP. (2023). Fiscal Report on the General Royalties System 4Q 2022. Bogota, D.C.

Figure 8. Distribution of SGR Collections by Department for the 2021-2022 Biennial (Billion pesos) [90]



Source: DNP (2023)

The potential of royalties to promote local and regional development towards a commitment to energy transition and productive transformation is threatened by bottlenecks that are mainly found in the execution stage of investment projects. According to the accu-

90 The FAE Trust balance as of December 2022 was $3,641 million dollars, with a Market Exchange Rate of $4,810, the balance in pesos was $17.5 trillion.

mulated figures of the SGR between 2012 and 2022, the system's collection was COP 103.3 trillion. Investment projects have been approved for COP 73.2 trillion and payments have been made for COP 67.1 trillion, of which COP 57.3 trillion have been for investment projects. When comparing the amount of approved projects with what has actually been paid, the total of non-executed SGR commitments is COP 15.9 trillion and the resources pending request, discounting the collection of approvals and other obligations, are close to COP 2.6 trillion[91], which reflects an opportunity to take greater advantage of this source of financing for the achievement of national climate change and biodiversity objectives.

The inclusion of environmental criteria in the projects to be financed with the SGR is fundamental to achieve the objectives of climate change and biodiversity. Compensation for the environmental impact of RNNR exploitation in the producing municipalities, as well as the promotion of carbon neutral economic activities, requires a prioritization and coordination mechanism between the national government and the territorial entities. In this sense, the prioritization of productive transformation projects that have a positive impact on the environment and biodiversity with SGR resources should take into account the flaws of the current system in the formulation, structuring and evaluation of the technical and financial viability of the projects, as well as in their execution.

Other Resources of Territorial Entities, Excluding SGR[92]

The reduction in the output of the extractive sectors may lead to a decrease in subnational tax revenues depending on the capacity of each territorial entity to absorb such reduction[93]. The exit of Prodeco in Cesar, for example, caused a decrease in the region's economic activity and, linked to this, a drop in tax revenues for the Department and its municipalities. According to the DNP study, the heterogeneous effects by departments with respect to the decrease in mining-energy activity depend on the degree of diversification of their productive structure. For this reason, it is important that the territorial entities most likely to be affected by the transition policies design and develop plans for productive and fiscal transformation.

A review of the expenditure shows that there is no major allocation of resources to environmental and climate impact components. Spending without SGR in 2021 was COP 84 trillion and was mainly concentrated in investment, 83.2%[94]. A breakdown by component and by sector shows that most spending is concentrated in social investment, specifically in the education and health sectors. In addition, one of the main areas of execution was in cash transfer programs for the most vulnerable households. Gross capital formation accounted for only 22.8% of the total, and was led mainly by spending on road construction.

91 DGPM-MHCP. (2023). *Fiscal Report on the General Royalties System 4Q 2022.* Bogota, D.C.
92 Total revenues of the TEs, excluding resources from the SGR, comprise own revenues and transfers by law from the national government.
93 Hernández - Diaz et al., (2023). Economics files: economic effects of a reduction of the extractive sectors in Colombia. 552.pdf (dnp.gov.co)
94 Followed by operations (14.1%) and the remaining (2.8%) is distributed in pension bonds and pension bond installments, contributions to the contingency fund of state entities, interest and commissions on debt and amortization of public debt.

Table 8. Investment by Type and Sector Excluding SGR (Million pesos)

	2021	Int.
Social investment	**$52,477,807**	**74.7%**
Education	$26,291,442	37.4%
Health	$13,086,130	18.6%
Potable water and basic sanitation	$711,898	1.0%
Housing	$140,034	0.2%
Other sectors	$12,248,304	17.4%
Gross Capital Formation	**$16,027,207**	**22.8%**
Education	$1,776,342	2.5%
Health	$1,130,116	1.6%
Potable water	$1,121,466	1.6%
Housing	$902,324	1.3%
Roads	$5,823,636	8.3%
Other sectors	$5,273,322	7.5%
Fiscal deficit from prior periods	**$1,712,793**	**2.4%**
Total investment	**$70,217,809**	

Source: Directorate General for Fiscal Support (2022)

In addition, there is a challenge for the territorial entities to execute the resources they are responsible for. The General Directorate of Fiscal Support - DGAF (2022) identified different risks in the execution of spending in the EETTs: (i) the territories evidence a low capacity to formulate social investment projects, (ii) there is a disarticulation between general purpose spending and the goals established in the development plans, (iii) the special allocation for municipalities bordering the Magdalena River is executed in efforts that turn out to be isolated, iv) the use of resources from allocations such as Potable Water and Basic Sanitation (APSB) should be aligned with the pillars of the PND and articulated with pillars such as environmental protection, and v) there are deficiencies in financial management and weaknesses in the contractual process. In this sense, it is necessary to strengthen in the territorial entities the formulation, structuring, evaluation of the technical and financial viability of the projects, as well as their execution to guarantee the correct development, among others, of the environmental projects in the regions.

Contingent liabilities associated with environmental phenomena represent a challenge for the finances of territorial entities. Subnational governments will face increased spending pressures to cover the potential effects of climate change on nature and biodiversity, as well as climate-related natural disaster risks. This could result, depending on the level of exposure of each territorial entity to the aforementioned risks, in a high fiscal deficit that could deterio-

rate the sustainability and solvency of subnational finances, in addition to limiting the fiscal space available for investment in sustainable projects.

The national government can provide support to municipalities and departments in order to build a comprehensive financial model that includes climate and environmental impact in their fiscal planning. The model should include: i) the identification of revenues and expenses associated with the fulfillment of environmental and climate objectives, as well as those that support the development of highly polluting activities, ii) an analysis of physical and transition risks to identify fiscal vulnerabilities, and iii) the identification of contingent liabilities due to climate events, as well as the implementation of financial protection instruments. In this exercise, national and territorial stakeholders must coordinate in the establishment of orderly roadmaps that identify, quantify, evaluate and categorize opportunities and risks, in order to establish sustainable public finances that are resilient to climate change and biodiversity loss.

COLOMBIA POTENCIA DE LA VIDA

Hacienda

5. Strategy for the Productive Sector

Meeting climate change goals will only be possible through the commitment and collective action of all sectors of the economy. Considering that the efforts required to meet the country's environmental and climate goals will have a significant cost and the financial capacity of the public sector is limited, it is important to create mechanisms that encourage and leverage the actions of the productive sector towards the environmental and climate financing path required by the country and the strategic commitments of the national reindustrialization policy. Bearing in mind the major stakes that the strategy for the productive sector seeks to develop, the following are the PIGCCSH+B lines of action on this front.

Action 8: Expansion of Colombia's Green Taxonomy

Taxonomies are tools that contribute to the mobilization of resources from different sources to meet climate, biodiversity conservation and social commitments, among other sustainable development objectives. These are designed to provide clarity on which activities and assets are considered green, social and/or sustainable and thus contribute to the transparency, integrity and development of financial markets and, in general, of sustainable investments. By December 2022, the world had 10 taxonomies in implementation and 18 in development[95].

Colombia's Green Taxonomy (TVC)[96] is the transversal tool that will allow directing investments, both public and private, towards the country's climate and environmental goals. In April 2022, Colombia published a first version of its national green taxonomy. Some of the users of the TVC are companies, investors, financial entities, public and private entities, financial consumers, among other actors. Its implementation seeks, among other things, to establish a common language for green finance, following international environmental sustainability standards, increasing transparency in these investments and avoiding "greenwashing"[97].

The SFC has been accompanying the financial sector with tools for the implementation of the TVC. On the one hand, pilots were developed to identify the alignment of the banking sector portfolios with the TVC, which seek to have a detailed diagnosis of the current situation of some financial institutions with respect to climate finance and identify opportunities of improvement for the taxonomy[98]. In addition, guidelines have been prepared for the implementation of the taxonomy and it is expected that progress will be made in the construction of other tools that will contribute to its appropriation and consolidation.

It is necessary to strengthen the components of biodiversity and adaptation to climate change,

95 2022, When finance talks nature, WWF
96 This document is available at: https://www.taxonomiaverde.gov.co/
97 This term was coined in 1986 by Jay Westerveld in an essay to describe outrageous corporate environmental claims. The Cambridge dictionary defines it as behavior or activities undertaken by companies that make the public believe that they are doing more to protect the environment than is actually being done.
98 The results of the first pilot for the implementation of Colombia's Green Taxonomy can be found in the March 2023 Financial System Update Report published by the Financial Superintendence of Colombia.

among other sustainable development objectives in TVC. The TVC initially defined five environmental objectives: i) climate change mitigation, ii) climate change adaptation, iii) land use, iv) water management and v) ecosystem and biodiversity conservation. In the first version of the TVC, the objective of climate change mitigation was further developed for seven sectors of the economy. The second phase of the taxonomy will advance in the definition of a framework for the incorporation of eligibility criteria for the objectives of adaptation to climate change and conservation of ecosystems and biodiversity. Finally, it is important to bear in mind that the taxonomy is a dynamic document with a scientific basis, which should be updated in line with advances in science and the availability of more efficient technologies; it is also appropriate to continue building this tool by objectives, in accordance with the country's sustainable development priorities.

Action 9: Greening the Financial System

There are four channels through which the financial sector can contribute to the transition to a more sustainable, low-carbon and climate resilient economy. First, through sustainable investments, the industry can promote the incorporation of ASG criteria in its investment decision-making processes in projects and companies. This involves considering not only the impact of these issues on financial performance but also the social and environmental impacts of the companies and projects invested in. Second, through sustainable financing, banks and other financial institutions can offer specific financial products to support projects or activities that have positive environmental and/or social impacts, such as green loans and lines of credit, bonds and thematic investment funds, among other sustainable financial instruments. Third, financial institutions can adopt risk management practices that consider climate risks, which involve assessing how changes in climate, biodiversity loss and the transition to a low-carbon economy may affect the long-term profitability of the assets in which the financial system has exposure. Fourth, by disclosing information on the environmental and social impacts of its investments and activities, as well as the risks and opportunities associated with climate change and environmental factors in its business.

Table 9. Key players in the Financial Sector and their Role in Green Finance.

Type of actor	Role	Instrument examples
Banks	Funder/lender	Green or sustainable lines of credit, green leasing, guarantees for green projects, among others.
Insurance firms	Risk Manager	Parametric insurance and other insurance products for environmental and climate risks.
Asset managers	Investor	Funds and other thematic investment vehicles.
Issuers of securities	Funder/investor	Thematic issuances such as green, social or sustainable bonds.

Source: Elaborated by the authors.

Financial regulators and supervisors should ensure that the financial system adequately manages climate and environmental risks and provides complete and truthful information on green financial products that are distributed. To this end, financial authorities must understand how climate change and the loss of biodiversity and natural capital affect the sector's entities and define strategies that build capacities and incentives for the incorporation of these issues in the activities and decision-making processes of financial institutions. In addition to improving the financial system's capacity to identify, measure and manage socio-environmental and climate risks, financial authorities must also develop strategies that seek to avoid greenwashing.

Central banks, in development of their function of ensuring the stability of the financial system, may consider within the economic and financial risks those derived from climate change and the degradation of natural ecosystems. The impacts of climate change and biodiversity loss can be transmitted to the financial system in the form of traditional financial risk categories (credit, insurance, market, liquidity and operational risks) (IMF, 2020) or even as a systemic risk if amplified. Banco de la República (Banrep), being aware of this, is a member of the Network for Greening the Financial System of Central Banks and Financial Supervisors (NGFS) together with the SFC and has made progress in including a pillar on climate change in its Strategic Plan for 2022-2025. In this Plan, Banrep established the commitment to contribute to the discussion on the risks of climate change in the economy, through a research agenda and educational activities based on cultural activities. Within this context, the Bank has published in its Economy Draft series and in its Essays about Economic Policy Magazine, the documents "Climate change: policies to manage its macroeconomic and financial effects (2020)", "The expected effects of climate change on Colombia's current account (2022)" and "Macroeconomic impact of climate change in Colombia (2022)".

In Colombia, progress has also been made in the incorporation of ASG criteria in the regulation and supervision of the financial sector. This is reflected in the circulars issued by the SFC since 2021. To complement these regulations, best practice guidelines for the issuance of green, social and sustainable bonds have been published and pilots have been developed for the implementation of Colombia's Green

Taxonomy, which evaluated the alignment of some green credit portfolios with this classification system. These pilots sought to identify gaps in the implementation of the TVC for banks in order to generate inputs that will allow its strengthening and consolidation. Likewise, technical documents have been published on the supervisor's expectations regarding the management of financial risks derived from climate change, with the objective of promoting the incorporation of ASG issues in the decision-making processes of the financial system for the pension, banking and insurance industries.

In August 2022, the SFC presented the updated strategy to incorporate environmental and social issues into the DNA of the financial system, including climate and nature-related ones. This roadmap includes activities that, on one hand, promote the inclusion of environmental and social risks and opportunities in governance, strategy, risk management systems and disclosure practices, and, on the other hand, seek to build practices, tools and knowledge to integrate them in regulatory activities and in the SFC's Comprehensive Supervisory Framework. These activities were presented to the public in the document entitled "Towards Greening the Colombian Financial System: Green Finance and Climate Change Strategy of the Financial Superintendency of Colombia"[99], and is organized in five dimensions: (i) Taxonomy, (ii) Green Innovation, (iii) ESG Integration, (iv) Data, Metrics and Disclosure, and (v) Monitoring and Measurement Tools.

Although the sector has made progress in incorporating sustainability criteria in its operations, the participation of green lines in the total loan portfolio is still incipient. By way of reference, the second survey on climate risks and opportunities (2021) conducted by the SFC among its supervised entities revealed that 36% of banks and 75% of development banks have green products or services to finance low-carbon and climate-resilient projects. However, green credit lines in the 5 entities participating in the voluntary pilots for the implementation of Colombia's Green Taxonomy represented only between 0.1% and 1.91% of the total portfolio between November 2021 and June 2022[100]. In any case, there are opportunities to further increase this share since banks with green lines have a wide range of products including green loans, mortgages and green leasing.

On the other hand, the outlook in the insurance sector shows greater progress, as 41% of insurers have directly green products and 80% have indirectly green insurance products. In 2022, following the publication of Colombia's Green Taxonomy, Fasecolda magazine published a first analysis of the development of green insurance in Colombia[101]. This exercise identified products that are directly green for the agricultural and forestry sector, transport (automobiles and bicycles), personal accidents, energy efficiency, renewable energy and environmental liability, as well as parametric solutions.

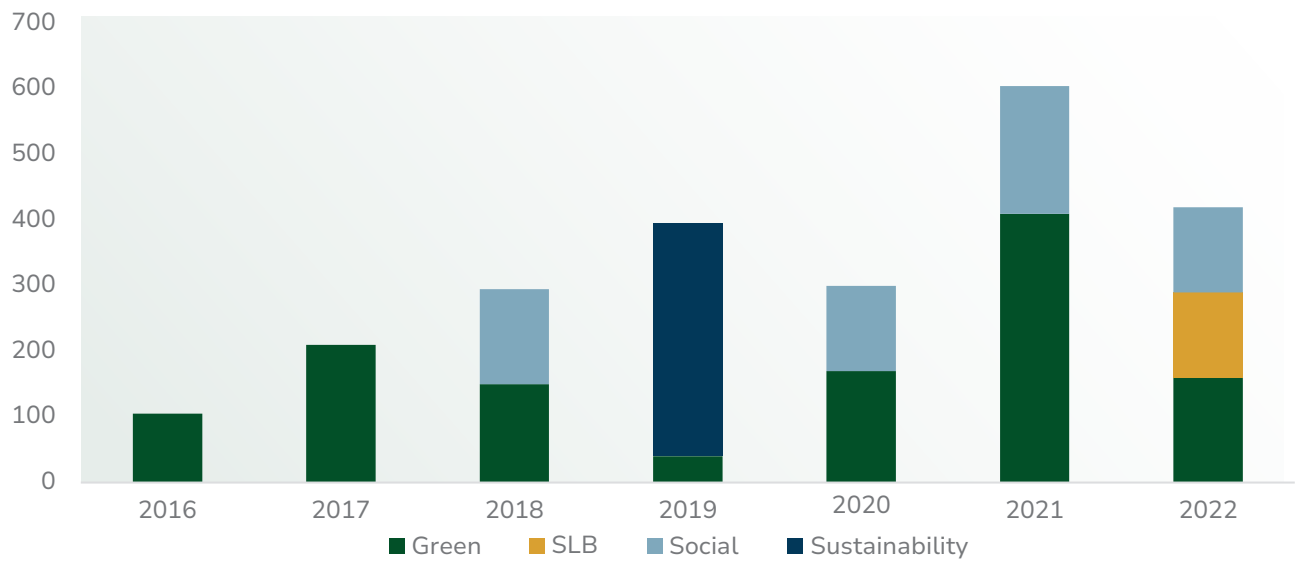
Public development banks have the potential of being catalysts in the mobilization of green finance by leveraging public and private resources through blended finance schemes. The Foreign Trade Bank of Colombia - BANCOLDEX, for example, has disbursed resources for COP 584,503 million between August 2017 and May 2022 for energy efficiency projects, renewable en-

99 This document is available at: https://www.superfinanciera.gov.co/jsp/10111958
100 Financial System Update, March. (2023). Financial Superintendence of Colombia (superfinanciera.gov.co)
101 This document can be found at: "https://revista.fasecolda.com/index.php/revfasecolda/article/view/816"

ergy, sustainable transportation, solid and liquid waste management, climate change mitigation and adaptation measures and bioeconomy[102]. On the other hand, in May 2023 Findeter formalized its accreditation with the Green Climate Fund, which will allow it to have direct access to international cooperation resources between USD 10 and 50 million to finance projects that contribute to climate change mitigation and adaptation[103]. Additionally, the amount of Findeter's portfolio marked as sustainable as of January 2023 was of COP 435,625 million pesos[104]. Another case is that of the National Development Financial Institution - FDN, which has also financed initiatives to mitigate and adapt to climate change. 18.26% of its climate portfolio meets the criteria defined by the Climate Finance Monitoring, Reporting and Verification (MRV) system and 17.27% of the green portfolio meets the criteria of Colombia's Green Taxonomy[105].

From a capital markets point of view, the Colombian market is the seventh largest sustainable debt market in Latin America and the Caribbean (LAC). Climate Bonds Initiative[106] estimated that USD 2.400 million in green, social and sustainable bonds (VSS+) were issued in Colombia by 2022. As for the green label, there were 16 transactions from 9 issuers with a cumulative volume of USD 1.300 million, equivalent to 53.7% of the country's VSS+ market, while the issuance of social and sustainability bonds was USD 620 million (26.3%) and 343.2 million (14.5%), respectively.

Figure 9. Share of Different Types of Thematic Debt in Colombia 2016-2022 (In million USD)



Source: Climate Bonds Initiative

102 Green Bond Report 2022: https://www.bancoldex.com/sobre-bancoldex/quienes-somos/informacion-de-interes-para-accionistas-e-inversionistas/emisiones

103 https://www.findeter.gov.co/noticias/comunicados/findeter-formaliza-acreditacion-ante-el-fondo-verde-del-clima-lo-que-le-permitira-acceder-recursos-para-proyectos-de-mitigacion-y-adaptacion-al-cambio-climatico

104 Sustainable Bonds 2022 Report: https://www.findeter.gov.co/relacion-con-inversionistas/emisiones-vigentes

105 The initiatives include: renovation of public transport vehicles with low or zero emissions, public mass transit systems, including metro and Bus Rapid Transit, renewable energy sources, and construction to reduce vulnerability to flooding.

106 Climate Bonds, 2023: State of the sustainable finance market in Colombia 2022. https://www.climatebonds.net/files/reports/colombia_estado_del_mercado_2022_esp.pdf.

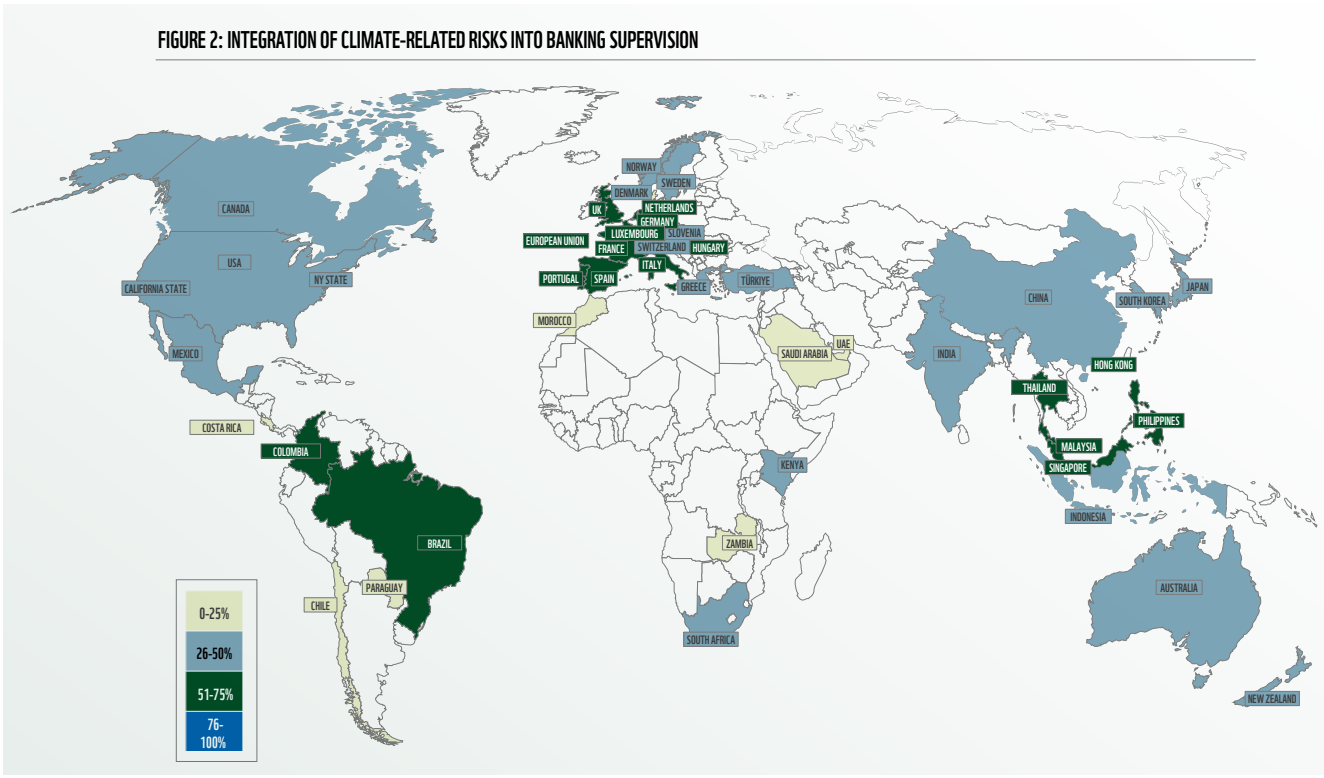
The green bond market in Colombia is the fifth largest in Latin America and the Caribbean in terms of issuance volume. The Colombian government is the largest issuer of green bonds, with a 43% share, followed by financial companies (35%), non-financial companies (13%) and development banks (9%). Renewable energies, buildings and transportation have been financed through green bond issuances, with 34.7%, 21.7% and 14.7%, respectively. The issuance of green bonds by commercial banks started in 2016 when Bancolombia issued a green bond for COP 350,000 billion. The following year Davivienda issued a COP 433,000 million green bond to support sustainable projects.

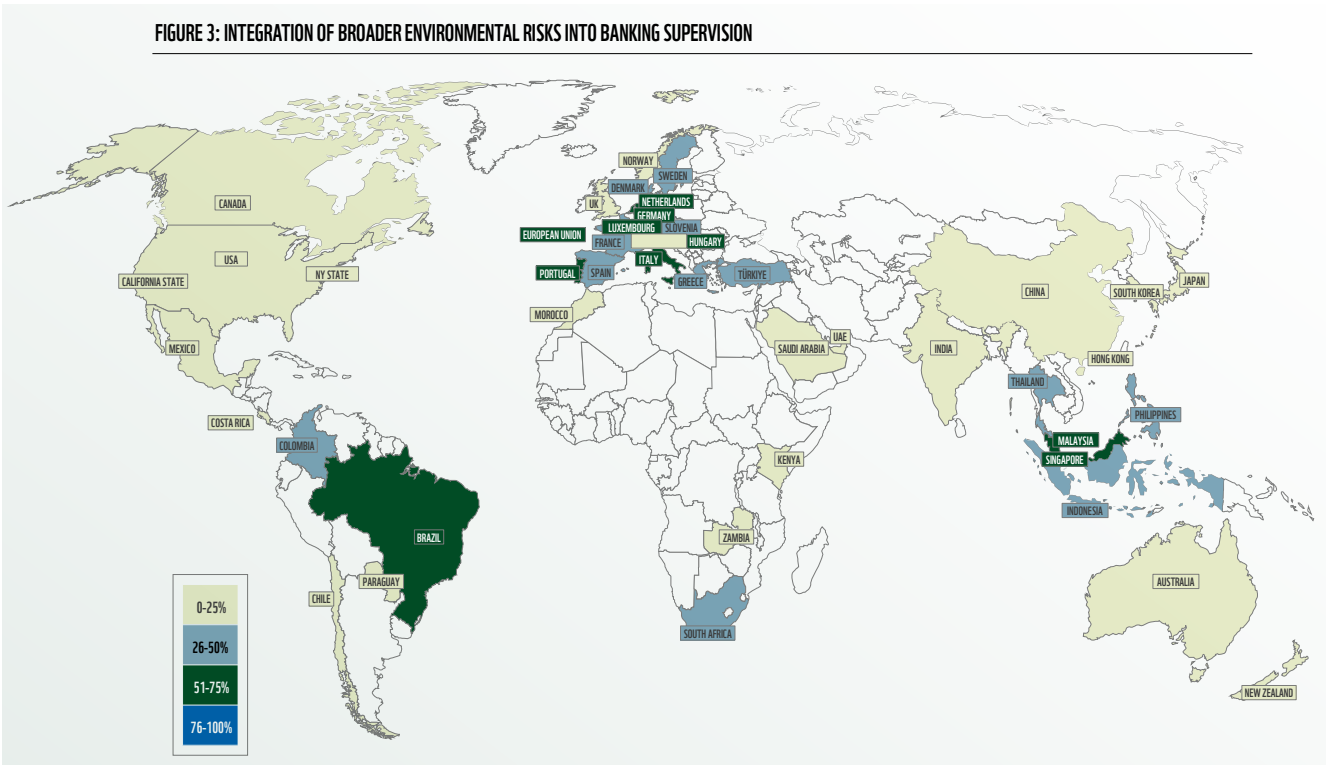
In the Colombian market there have also been issuances of social bonds, sustainable bonds and sustainability linked bonds through innovative operations. In 2018, SMEs, rural businesses, women-owned businesses and victims of the armed conflict were financed through Bancóldex's green and social bonds (USD 139 million) and, in 2019, Findeter issued the country's first sustainable bond for COP 400,000 million. In 2019, there was also a sustainable securitization by the trust fund TMAS -1 to finance the acquisition of fleet for the integrated public transportation system of the city of Bogotá for a value of more than COP 300,000 million[107] and a sustainable bond issuance by Bancolombia for COP 657,000 million through a private placement with IDB Invest. The funds from these bonds were used to finance education, health, infrastructure (on the social side) and energy efficiency, transportation, water sanitation and sustainable buildings (green use). More recently, in 2020 two green, two social and two sustainable issuances were made and at the end of 2022 Bancolombia placed an operation for COP 640,000 million in sustainability-linked bonds, with a 5 year maturity.

While the financial sector has made progress in internalizing issues associated with climate change through the issuance of thematic debt and disclosure of ASG issues, those related to biodiversity and natural capital are lagging behind. WWF's Susreg[108] 2023 Annual Report assessing sustainable financial regulation shows that Colombia is more advanced in the integration of climate issues in the supervision of credit institutions than in the integration of broader environmental issues such as biodiversity loss, habitat destruction, deforestation, pollution, among others (Figure 10). This report notes that while most efforts in banking supervision have focused primarily on climate-related issues, it is crucial to recognize that nature has played a substantial role in mitigating the effects of human-related carbon dioxide emissions (e.g., carbon sinks, physical climate risk reduction, etc.). Colombia, as the second most biodiverse country in the world, plays a strategic role in global biodiversity preservation efforts, and its attention to nature conservation should extend to financial supervision policies.

107 Prospectus for the placement of the securitization of the sustainable mass transportation of Bogota - TMAS-1 - Alianza Fiduciaria
108 Acronym for *Sustainable Financial Regulations and Central Bank Activities.*

Figure 10. Advances in the Integration of Climate and Environmental Risks in Banking Supervision.





Source: Susreg – WWF Report 2023

There are opportunities for the financial sector to contribute more to the transition to an environmentally sustainable economy. In order to continue advancing in the greening of the financial sector, the MHCP and the SFC, through financial policy, regulation and supervision, will continue to incorporate sustainability criteria in the sector, with the objective of promoting the creation of green financial products (e.g., green loans and investment funds), improve corporate disclosure on ASG issues (e.g., from international standards such as ISSB, TCFD, TNFD or SASB[109]) and climate and nature risk management (e.g. use of parametric insurance and guarantees) that channel more financing to meet the country's environmental goals and reach more segments of society. The 4 lines of work outlined in the SFC's green finance and climate change strategy seek to develop these objectives to promote a more resilient and transparent financial system in the medium term.

The Financial Regulatory Unit's (URF) 2024 regulatory agenda included for the first time initiatives that seek to contribute to the mobilization of resources for sustainable investments and to incorporate financial and sustainable information standards for decision making. In order to maintain an updated view of the standards and trends in prudential regulation for the management of financial risks derived from climate change, a comprehensive review of international prudential developments related to the impact of climate change on the financial system will be conducted. In this sense, the aim is to keep the URF's prudential regulation team updated and to determine the actions that the regulator could take to guarantee the resilience of the financial system's institutions in the face of this type of risk.

Likewise, the role of the national development banks will be promoted and strengthened to lead the mobilization of resources from the public and private sectors for climate and environmental financing. Public development banks play a key role in financing climate and biodiversity initiatives since they have the capacity to channel resources from national public budgets and multilateral organizations to offer more competitive direct financing to the private sector or to the financial sector through special credit lines or other financial products such as guarantees. To this end, the role of the entities that are part of the Bicentennial Group will be strengthened through the offer of financial and non-financial services that will allow financial intermediaries to leverage loans under favorable conditions for projects with a positive environmental impact.

109 ISSB: International Sustainability Standards Board of the IFRS Foundation; TCFD: Climate-related Financial Disclosures Task Force (TNFD): Working Group on Nature-Related Financial Disclosures; SASB: Sustainability Accounting Standard.

Action 10: Financing of Sustainable Infrastructure

Public spending on renewable energy, public transportation and other types of infrastructure have the potential to increase output. The paper "Employment effects of public spending on infrastructure, the care economy and the green economy: the case of emerging economies"[110] calculates the fiscal multipliers associated with public spending on infrastructure based on the estimated effects on GDP. The cumulative multipliers for the six analyzed countries range from 1.9 for Colombia to 4.6 for South Korea. This means that an increase in public spending on physical infrastructure of one Colombian peso increases GDP by 1.9 pesos after five years.

Making infrastructure sustainable is necessary for the challenges of climate change, resource depletion and urban sprawl. Some of the reasons to invest in sustainable infrastructure include: i) help reduce GHG emissions and mitigate climate change, ii) contribute to the conservation of natural resources, iii) contribute to climate change adaptation, and iv) adopt resilient designs. In this sense, the role of the MHCP and its affiliated entities is to promote the development and implementation of regulatory frameworks, establish financial mechanisms that encourage investment in sustainable infrastructure and work in coordination with other ministries.

The MHCP has established policies for the incorporation of Environmental, Social, Governance and Resilience (ASG+R) criteria in infrastructure projects financed by the central Government. First, the "Methodology for valuation of contingent liabilities for Public Private Partnerships (APP) infrastructure projects: ASG+R criteria" was established. This methodology seeks to improve the statistical approach and the models used to measure the risk of infrastructure projects, mitigating the contingent liabilities of such projects. In addition, the development of multi-modal and sustainable infrastructure was adopted as a State policy[111] to encourage increased foreign investment based on sustainability attributes in order to have a more competitive and resilient infrastructure.

The PND established the legal enabling framework to develop green and/or sustainable Public-Private Partnerships (APPs). Article 239 of Law 2294 of 2023 establishes that projects may be developed under APP schemes for the social, economic, productive and sustainable development of the country. Drawing on the MHCP's experience in infrastructure financing through PPP, progress will be made in the regulation of this instrument and actions will be taken to ensure that its development is aligned with environmental and climate objectives.

110 Study prepared by Özlem Onaran and Cem Oyvat for the International Trade Union Confederation (ITUC) with the support of the Friedrich-Ebert-Stiftung.

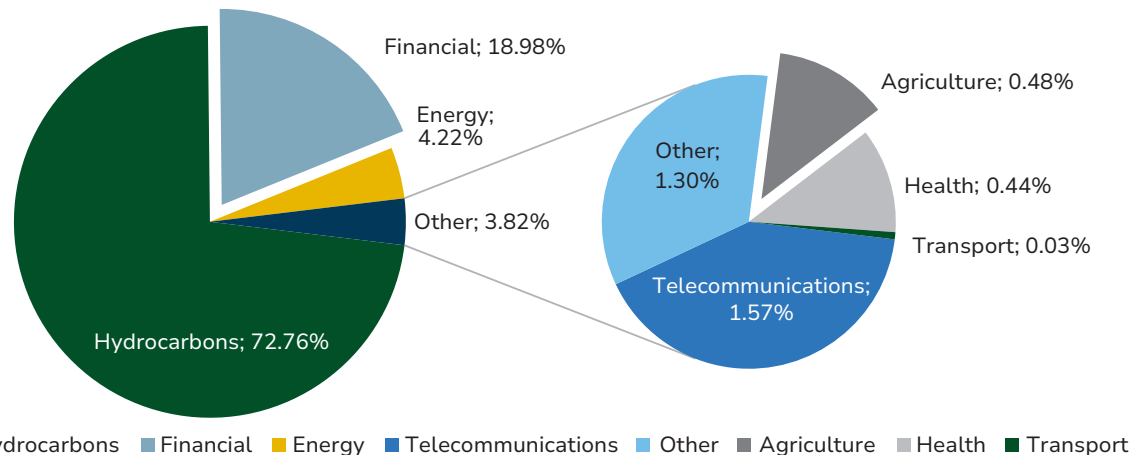
111 General Department of Public Credit and National Treasury, 2022, p. 7. (Resolution 4859 of 2019).

Action 11: State-Owned Enterprises Towards Net Zero

No industry or organization should be left behind in efforts to mitigate and adapt to climate change, use biodiversity sustainably and preserve natural capital. While progress has been made in expanding renewable energy supply and reducing dependence on fossil fuels in the power and transportation sectors in particular, many other activities continue to have high levels of emissions. To address this, companies producing goods and services must rapidly decarbonize and transform their operations[112]. According to a recent study by Oxford University, 61% of countries, 9% of states and regions in the largest emitting countries and 13% of cities with more than 500,000 inhabitants have committed to net zero emissions. At the same time, of the world's 2,000 largest publicly traded companies, 21% have zero net emissions commitments.

The Colombian Government can effectively exercise a strategic direction towards the generation of economic, social and environmental value in its state-owned enterprises, as well as in the co-financed Mass Transportation Systems. Conpes 3851 of 2015 seeks to ensure that the ownership of state-owned companies is carried out under a structured, clear and efficient corporate governance model. This materialized with the issuance of Decree 1510 of 2021, whose purpose is to establish rules for the management of the companies and corporations owned by the government and territorial entities, in order to generate economic and social value, guarantee the efficient and adequate use of investment resources and promote better corporate governance practices. At the end of 2022, the National Government has a majority stake in 33 companies and a minority stake in 66 companies in various sectors (Figure 11) whose adjusted equity value is COP 109.6 trillion, corresponding to 6.9% of GDP at current prices[113].

Figure 11. Portfolio of the Nation's Companies by Sector (Percentage of Total Companies)



Source: General Department of State Ownership (DGPE)

112 Climate Bonds Initiative, (2021). Transition Finance for Transforming Companies: avoiding greenwashing when financing the decarbonization of companies. September 2021: https://www.climatebonds.net/files/files/Transition%20Finance/Transition%20Finance%20for%20Transforming%20Companies%20ES%209%20Sept%202021.pdf

113 Annual Report of companies of the Nation 2022: https://www.minhacienda.gov.co/webcenter/portal/EntOrdenNacional/pages_participacionesestatales"

Taking into account the role of the MHCP in the state-owned companies and in the Mass Transportation Systems co-financed by the Nation, the adoption of standards and policies to address climate change and biodiversity loss will be promoted. Among the reasons that can be outlined for state-owned companies to adopt net zero transition policies are that: i) state-owned companies are responsible for minimizing their environmental impact and being leaders in the development of a more sustainable future and ii) by incorporating sustainable practices that reduce their environmental impact they can have a better reputation and generate confidence among investors and consumers.

Action 12: Regulation of the Colombian Carbon Market

Carbon markets have the potential to act as an effective tool to reduce GHG emissions and channel resources for ecosystem protection and other projects with a positive impact on nature. In order for these markets to function properly, an institutional framework must be established based on principles of transparency, reliability, credibility, quality, environmental integrity, additionality and fairness. The assumption framing carbon markets is that emissions have an environmental and economic cost.

There are currently voluntary and compliance carbon markets, depending on whether or not there is a legal obligation involved. In the voluntary carbon markets, carbon credits are bought and sold, where a credit represents a ton of CO2 equivalent reduced or removed from the atmosphere, which materialized through what is known as a GHG reduction or removal certificate (or emission permits). On the other hand, compliance or regulated markets seek to comply with international, national or subnational emission reduction targets. To this end, governments have implemented mechanisms that establish a maximum limit on the GHG emissions that certain sectors of the economy can generate. Companies belonging to these sectors are required to have allowances or quotas to support their GHG emissions. In addition, there are "carbon pricing initiatives" such as carbon taxes[114] and Emissions Trading Systems (ETS).

Table 10. Collection of Carbon Tax.

Year	Carbon tax (millions of current pesos)
2017	476,862
2018	294,073
2019 (p)**	451,046
2020 (p)**	294,902
2021 (p)**	334,309
2022(p)**	423,904
2023(p)**	575,274

***February 2024*
Source: DIAN, Statistics of Annual Administrative Tax Collections by the DIAN 1970-2023p

Since 2016 Colombia implemented the National Carbon Tax[115] with a non-causation mechanism that has generated a voluntary market. The purpose of the tax is to discourage the use of fossil fuels and encourage the transition to clean energy in production processes. The tax is estimated to have collected COP 2.4 trillion between May 2017 and May 2023 as shown in Table 10. According to the MADS, as of September 2023, the non-causation mechanism has allowed the offset of more than 99 million tons of CO2 for the 2017-2023 period. According to the MADS, 76% of the CO2 equivalent tons (tCO2eq) offsets that have applied to non-causation corresponded to forestry and REDD+ initiatives; 18.66% to initiatives in the energy sector and 5.35% to initiatives in the industrial, waste and transportation sectors.

Table 11. Mega Tons of CO2eq Offset for the Non-Causation of the National Carbon Tax (2017-2023)

Year	MtCO2eq cancelled
2017	7,707
2018	11,914
2019	14,942
2020	10,122
2021	23,423
2022	20,761
Sept-2023	10,983
TOTAL	**99,851**

Source: MADS, Bulletin No 11 Results of Non causation, September 2023

Law 2277 of 2022 "Tax Reform for Equality and Social Justice" broadened the scope of the Carbon Tax. This tax reform included three modifications to the carbon tax: (i) it includes coal among the taxed fuels, (ii) it modifies the destination of the tax to finance environmental initiatives through the Fund for Life and Biodiversity, (iii) it sets the value of the tax at COP $20,500 for 2023, which will be adjusted annually based on the Consumer Price Index (CPI) without exceeding 3 Tax Value Units (UVT), and (iv) it establishes that the non-causation mechanism may not exceed 50% of the tax caused. The purpose of the Fund for Life and Biodiversity is to articulate, focus and finance the execution of plans, programs and projects of a national or territorial nature, aimed at climate action and resilience, environmental management, environmental education and participation, and the recovery, conservation, protection, planning, management, use and exploitation of renewable natural resources and biodiversity, as well as the purposes established for the national carbon tax.

The country is also legally competent to create an emissions reduction system through the National Program for Tradable Greenhouse Gas Emission Quotas (PNCTE). Law 1931 of 2018 created the PNCTE which seeks to establish a cap on emissions from certain sectors. The 2024 regulatory agenda of the MADS includes the regulation of the PNCTE, which is necessary for its implementation. The price of the tradable quotas will be determined by the market according to the supply and demand of these

115 The carbon tax and its non-causation mechanism were created by Law 1819 of 2016 modified by Law 2277 of 2022. The non-causation mechanism was regulated in Decree 926 of 2017 and Resolution 1447 of 2018, which regulates the monitoring, reporting and verification system -MRV of mitigation actions at the national level, as related to the accounting system for the reduction and removal of GHG emissions, and the national registry for the reduction of GHG emissions- RENARE.

quotas and the revenue from the sale or auction of the rights will depend on the size of the limit and the monetary value[116].

Although the country has made progress in the implementation of carbon pricing mechanisms, it is necessary to establish the minimum principles for the correct operation of carbon markets. The diversity of instruments operating at the same time can be problematic when it comes to preserving environmental integrity criteria and meeting the country's climate change objectives. It is therefore necessary to strengthen verification and certification mechanisms, voluntary compensation mechanisms and their interaction with other carbon pricing instruments such as the national carbon tax and the PNCTE in order to promote better development and empowerment of these markets.

The MHCP and its affiliated entities can contribute to the definition of the legal nature of the tradable quotas of the PNCTE and the eventual regulation of the negotiation conditions. Although the regulation of the carbon market is a MADS's responsibility, the MHCP and its affiliated entities, due to its competence and experience in financial markets, participates in the definition of the legal nature of the quotas as a security, security, commodity or other type of asset. This policy decision ends up defining particular aspects related to their issuance (primary market), trading requirements (secondary market), infrastructure where they can be traded (trading systems or over-the-counter - OTC), price formation, administration, custody, clearing and settlement, accounting and tax treatment, among others.

116 National Program for Tradable GHG Quotas - Ministry of the Environment and Sustainable Development (minambiente.gov.co)

COLOMBIA POTENCIA DE LA VIDA

Hacienda

6. Strategy for the Citizenship and Civil Society

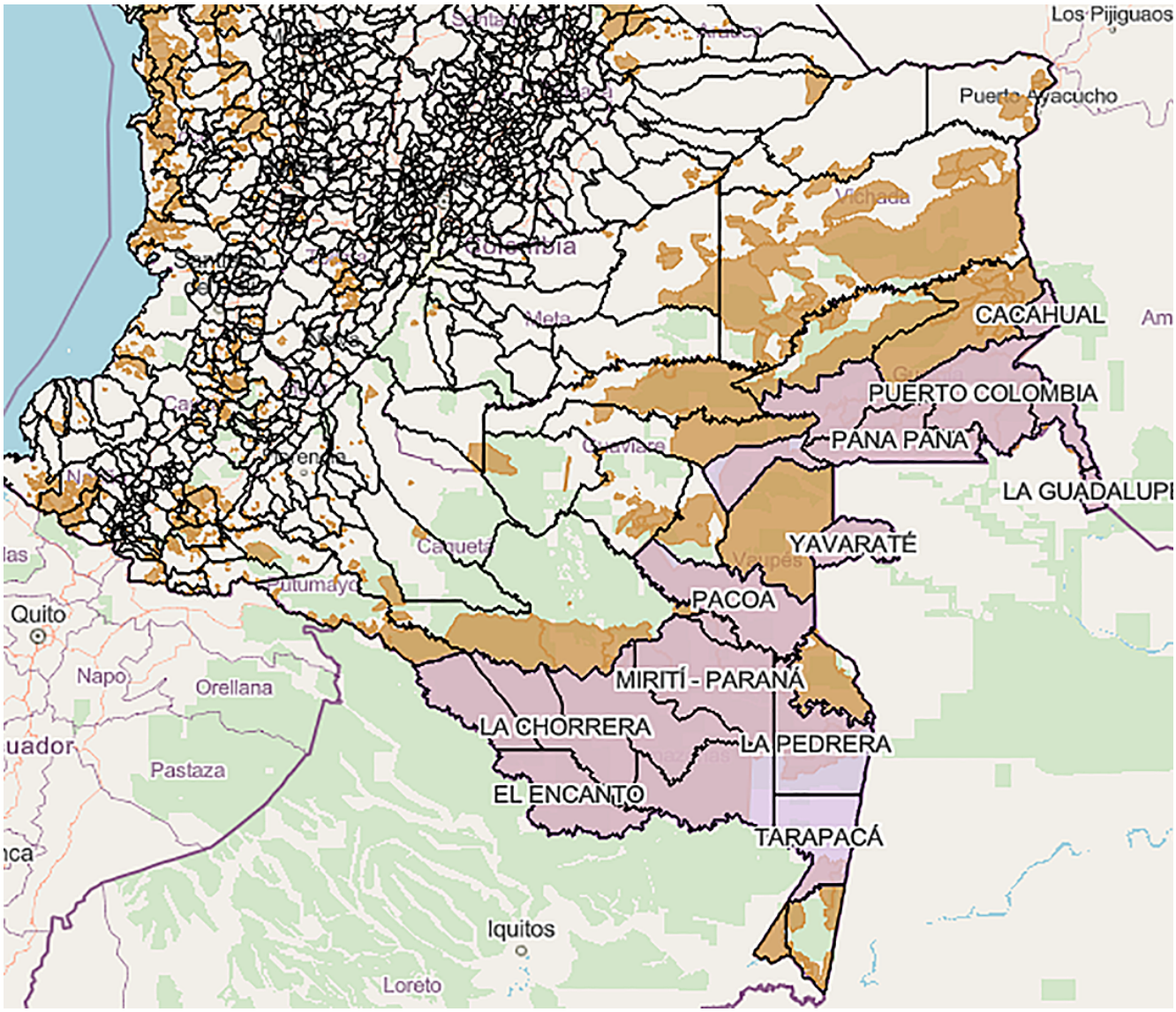
The productive transformation that the country is undergoing towards a low-carbon economy must respond to the needs of the citizens, particularly those populations with low access to financing. The national government has made progress in this effort through the Special Assets Company (SAE), which in 2023 included the creation of public, social and environmental value as part of its mission. This means using the confiscated assets that were product of illegal activities and that generate accumulated income to strengthen the bases of the popular economy and make the land owned by the SAE available to the most vulnerable part of the population affected by the climate crisis. To continue this path, this strategy of the PIGCCSH+B proposes the development of projects to address climate change in non-municipalized areas through the use of participatory budgeting through a pilot, facilitate the development of sustainable community infrastructure through Public-Popular Partnerships (AIPP) and guarantee access to green public financial information for academia, civil society and citizens. Bearing in mind the major commitments that this strategy seeks to develop for the citizenship and civil society, the following are the lines of action of the PIGCCSH+B on this front.

Action 13: Resources to Non-Municipalized Areas

In the context of prioritization and search for efficiency in the national and subnational climate spending, the role of local communities in the conservation of territories is recognized in order to achieve environmental and climate goals. According to FAO [117], indigenous peoples are key protectors of the environment; 28% of the planet's land area, including forest areas, is sustainably managed by small indigenous families and communities. Therefore, it is important to highlight the role of the Non-Municipalized Areas (ANM) in the departments of Amazonas, Guainía, Vaupés, among others (Figure 12), which are part of the indigenous reserves. Decree 632 of 2018, which recognizes the existence of the Associations of Indigenous Traditional Authorities and/or Cabildos in the ANMs, frames governance in the hands of the indigenous communities in the area and assigns among its funding sources the Special Allocation of the General System of Participations for Indigenous Reservations (0.52% of the total resources of the SGP). In this sense, the prioritization of environmental projects in these territories will allow them to execute resources that maintain, promote and improve their livelihood activities that inherently favor the conservation and preservation of ecosystems.

117 Five ways indigenous peoples can help the world eradicate hunger - FAO

Figure 12. Identification of Non-Municipalized Areas and Indigenous Reservations



Source: https://vcantoravila.maps.arcgis.com/apps/instant/interactivelegend/index.html?appid=41721ef2e1494f2492d9a79748d7fa96

It is imperative to articulate the national government's policies with key stakeholders, such as communities, in the environmental and biodiversity protection scenario. This will be achieved through the promotion and use of participatory budgets, which also have the support, training and guidelines that lead to efficient fiscal development, for which a pilot implementation is proposed.

Action 14: Public-Popular Partnerships

The national government is committed to facilitating the development of sustainable community infrastructure through Public-Popular Partnerships that seek to promote the participation of the popular sectors in environmental conservation and energy transition projects. The PND 2022-2026 created this type of partnership as a bet for the execution of social infrastructure through a minimum amount contract between a public entity and a natural person or entity that is part of the popular and community economy. These are collaborative mechanisms agreed upon for the linkage of popular sectors and communities for the provision of goods and services focused on the needs of the territories. Among the actions that may be carried out by these Public-Popular Partnerships are the execution of works or the acquisition of goods and services related to social infrastructure, rural housing, local productive infrastructure, energy generation and efficiency projects (such as energy communities[118]), food production, community water management, basic sanitation, acquisition of products of agricultural origin or destination, among others.

The technical experience acquired by the MHCP in the regulation of current Public-Private Partnership will be useful in the regulation of Public-Popular Partnerships. Although the regulation of Public-Popular Partnerships is the responsibility of the DNP, the MHCP will support the establishment of guidelines and directives to ensure their correct execution and evolution.

Action 15: Green public financial information

Access to green public financial information is a powerful tool for the articulation and coordination of the different actors in their effort to tackle climate change and biodiversity loss. In recent years, discussions on climate change have become more relevant and the call for action has been one of the most frequent demands. However, the disarticulated involvement of various actors in specific territories and issues can lead to duplication of efforts, reprocessing and initiatives, which means that the financial resources allocated to these goals are not used in the most efficient way. In this sense, there is a double challenge: on the one hand, to identify and collect the necessary information for the development of public, private and/or popular initiatives, and, on the other hand, the need to articulate and prioritize the initiatives in conjunction with the communities that inhabit the territories intervened.

In this regard, the national government and control agencies have been making progress in generating transparent and easily acces-

118 Users or potential users of energy services may form Energy Communities to generate, commercialize or efficiently use energy through the use of non-conventional renewable energy sources -(FNCER)-, renewable fuels and distributed energy resources. https://www.minenergia.gov.co/es/comunidades-energeticas/

sible public financial information. The national government has the Economic Transparency Portal[119], which contains information on the PGN and the SGR, through which it is possible to identify the revenues and expenditures of the environmental sector. In addition, the General Accounting Office of the Nation (CGN) has been actively participating in the discussions on sustainability reporting frameworks for the public sector, an exercise led by the IPSASB (International Public Sector Accounting Standards Board). On the other hand, the Office of the Comptroller General of the Republic (CGR) launched the Observatory of Surveillance and Fiscal Control[120] where, in addition to access to comparable budgetary information of the entities under the CGR's surveillance, there is access to reports on the environmental sector, including the execution of funds allocated for the policy and compliance with environmental legislation, among others.

This Plan proposes strengthening the identification of sources of financing, their use and access for academia, civil society and citizens. Although the national government and control agencies have made valuable efforts to make progress in this area, there is still room for improvement. The development of this Plan will seek to facilitate access to green financial information by consolidating the different sources and regulations in a single place and facilitating the use of information for analysis and monitoring of public policies developed on the subject, respecting the guidelines given by the competent authorities on data management and information disclosure.

119 www.pte.gov.co
120 www.contraloria.gov.co/en/web/observatorio-de-control-y-vigilancia-de-las-finanzas/inicio

Annex 1. PIGCCSH+B Action Matrix

Strategy	Action line	Sub line	Objective	Responsible	Estimated date
International strategy	1. International Tax System	1.1. Tax Platform for Latin America and the Caribbean (PTLAC)	Having a space for regional dialogue on regional taxation measures.	MHCP	2023
	2. International Financial System	1.2. Global Expert Review on Debt, Climate & Nature	Review the reforms needed to ensure debt sustainability in developing countries to enable them to make the necessary investments to meet environmental and climate goals.	MHCP	2024
National Government Strategy	3. Fiscal resource efficiency	3.1. Tax revenues and tax expenditures	Evaluate current taxes, fees and tariffs, as well as tax expenditures, such as discounts or compensation mechanisms, with respect to their efficiency and effectiveness for environmental purposes or vocation.	MHCP DIAN	2025
		3.2. Subsidies and expenditures in highly polluting sectors	Having information and characterization of subsidies and expenditures in highly polluting sectors that make their total or partial dismantling feasible.	MHCP	2025
		3.3. Marking and budget tracking of environmental and climate activities	Develop budget trackers and/or markers to account for environmental and climate activities funded by the PGN.	MHCP	2026
	4. Sustainable sovereign financing	4.1. Thematic bonds	Periodically (2023-2026) issue earmarked debt instruments to finance green, social or sustainable expenditures.	MHCP	2026
		4.2. Innovative instruments	Explore the structuring of new innovative debt instruments that seek to improve the conditions and broaden the sources of financing for environmental and climate objectives..	MHCP	2026
		4.3. Additional sources of financing	Expand access to multilateral sources of financing for the fulfillment of environmental and climate objectives.	MHCP	2026

National Government Strategy	5. Risk Management	5.1. Physical risks	Continue with the implementation of the national strategy for financial protection from disaster, pandemic and epidemic risks, taking advantage of the inter-institutional governance developed for the achievement of the NDCs.	MHCP	2026
		5.2. Macroeconomic risks of transition	Develop studies, evaluations and models to include the effects of energy transition and other shocks associated with climate change and biodiversity loss on macroeconomic and fiscal variables.	MHCP	2030
	6. Institutionality	6.1. Institutional strengthening	Strengthen the capacities of the Finance sector entities through knowledge management and review the organizational structure of the MHCP.	MHCP	2025
		6.2. Environmental performance	Implement best practices, tools and knowledge transfer content within the framework of the Finance Sector's environmental performance roundtable.	Fiscal and Financial Policy	2026
Strategy for subnational governments	7. Subnational Fiscal Planning	7.1. Impact on climate change and energy transition	Identify the economic risks to which territorial entities are exposed as a result of the impact of climate change and the energy transition in order to guarantee financial, economic and environmental sustainability.	MHCP	2029
Strategy for the productive sector	8. Extension of the Green Taxonomy	8.1. Extension of the Green Taxonomy	Consolidate Colombia's Green Taxonomy as the tool for classifying assets and activities that contribute to meeting the country's environmental and climate goals and expand the sectors and activities for biodiversity conservation and climate change adaptation objectives.	TVC Inter-institutional Board	2025
	9. Greening of the financial system	9.1. Green financial products	Create an enabling environment for the design and offer of innovative green financial products adapted to the needs of different sectors, territories and population groups.	SFC Bicentennial Group	2026
		9.2. Incorporation of ASG criteria in disclosure	Promote corporate disclosure in the financial sector and capital markets to facilitate decision making and improve the availability of data to identify and monitor climate-related risks and financial opportunities and the loss of biodiversity and natural capital.	URF SFC	2030

Strategy for the productive sector	10. Sustainable infrastructure financing	10.1. Methodology for valuation of contingent liabilities	Strengthen the structuring of infrastructure projects financed by the Nation to incorporate ESG+R criteria.	MHCP	2030
		10.2. APPs for sustainable development	Regulating APPs for sustainable development.	MHCP	2025
	11. State-owned enterprises at net zero	11.1. Transition of state-owned companies with MHCP participation or representation to net zero.	Promote the adoption of standards and policies to address climate change in state-owned companies with participation or representation of the MHCP and in the Mass Transportation Systems co-financed by the Nation.	MHCP Companies with majority state participation	2027
	12. Regulation of the Colombian carbon market	12.1. Regulating the carbon market	Support the structuring and financial and economic design of the National Program of Tradable Emission Quotas within the framework of the competencies of the entities of the Fiscal and Financial Policy.	MHCP URF	2025
Strategy for citizenship	13. Resources to non-municipalized regions	13.1 Mechanism for financing projects in non-municipalized areas	Promote the use of participatory budgets in non-municipalized areas where strategic ecosystems.	MHCP	2026
	14. Public-Popular Partnerships	14.1 Mechanism for financing community and popular economy projects	Support the regulation of Public-Popular Partnerships (AIPP) as an impulse for the popular economy in the reduction of biodiversity loss, natural capital and the fight against climate change.	MHCP	2025
	15. Green public financial information	15.1 Dissemination and transparency of green public financial information to academia and civil society	Consolidate different sources and regulations on financing for climate change and biodiversity and facilitate the use of information for analysis and monitoring of public policies developed on the subject.	Fiscal and Financial Policy	2026

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