COLOMBIA

The First Sovereign Green Bond in Local Currency in Latin America

CASE STUDY

WORLD BANK GROUP

July 2022

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Acknowledgments

Farah Imrana Hussain and Rodrigo Silveira Veiga Cabral (World Bank Treasury) led the preparation of this report. The primary author of the report was Prajwal Baral (Consultant, World Bank Treasury). Special thanks to Ana Carolina Diaz Zuleta (Consultant, World Bank Treasury) for her extensive input and feedback, as well as to Andres David Pinchao Rosero (Consultant, World Bank), Claudia Maria Marin Daza (Consultant, World Bank), Julian Lee (Senior Environmental Specialist, World Bank), Paolo Dudine (Senior Economist, World Bank) and Helena Cristina Dill (Consultant, World Bank Treasury).

The *Colombia Sovereign Green Bond Framework (2021),* Ministry of Finance and Public Credit (MHCP); *Second Party Opinion (2021),* Vigeo Eiris; and *Presentation on Colombia Sovereign Green Bond Framework (2021)*, MHCP were extensively referred to and referenced while preparing this case study.

Preparation of this report would not have been possible without the support of the MHCP.

The Nationally Determined Contributions Support Facility, a multi-donor trust fund created to facilitate implementation of nationally determined contributions that countries pledged under the Paris Agreement in 2015, financed preparation of this report. We appreciate their generous support.

The team thanks the World Bank GSD Creative Services for editing and designing this report.

Abbreviations

CO_2	Carbon dioxide
CONPES	Consejo Nacional de Política Económica y Social
COP	Colombian pesos
DNP	National Planning Department
ESG	Environmental, social, and governance
GDP	Gross domestic product
IBRD	International Bank for Reconstruction and Development
ICMA	International Capital Market Association
IDA	International Development Association
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies
MADS	Ministry of Environment and Sustainable Development
MHCP	Ministry of Finance and Public Credit
NDC	Nationally determined contribution
SDG	Sustainable Development Goal
TES	Treasury bonds
WBG	World Bank Group

FOREWORD

Investments in Colombia have a positive multiplier effect on furthering global sustainability, decarbonization, and biodiversity. Colombia is the second most biodiverse country in the world and has the greatest biodiversity per square meter. It ranks first in diversity of birds and orchids and second in variety of plants, amphibians, and freshwater fish. Its biodiversity, together with its human capital and ethnic and cultural diversity, are key factors in the country's economic development.

Colombia is committed to preserving 30 percent of its territory as protected area, reducing greenhouse gas emissions by 51 percent by 2030, and transitioning to a carbon-neutral economy by 2050. It has recently enacted and is implementing four laws to achieve these goals: clean transport act, environmental crimes act, energy transition act, and climate action and decarbonization act.

In line with these national policies and strategies, the government has been promoting an agenda to protect natural resources and mitigate the social and economic impacts of climate change. This agenda focuses on enabling the country to meet its Sustainable Development Goals by establishing measures that support mobilization of resources through green finance, including development of green bond markets; adoption of a national green taxonomy; and incorporation of environmental, social, and governance (ESG) criteria into methodologies to value risks on infrastructure projects structured through public-private partnerships.

In 2021, Colombia issued its first sovereign green bonds, becoming the first emerging-market economy to place these securities through local auctions in local currency and to adopt the German green twin bonds approach in the domestic market.[1] These financial innovations foster development of the local green bond market; enhance transparency, liquidity, and efficient price discovery; and diversify the country's local bond investor base. *Environmental Finance* awarded the Green Bonds 2031 the *Green Bond of the Year—Sovereign in 2022*.

After adopting its sovereign green bond framework, Colombia issued twin green bonds for Colombian pesos (COP) 1.49 trillion in the local market using the Dutch auction mechanism.[2] The launch of sovereign green bonds yielded positive results in terms of demand, cost, and diversification of the investor base. The two auctions of green treasury bonds 2031 averaged bid-to-cover ratios of 3.0 times, and the greenium[3] at issuance doubled from 7 basis points in the first auction to 15 basis points in the second. The first green bond issuance financed expenditures

1 The green twin bond concept was introduced by Germany in 2020 when they issued a green bond with the same maturity and coupon as a conventional bond, thereby creating "twin" bonds (Bundesrepublik Deutschland Finanzagentur GmbH 2020).

2 The Dutch auction is also called the descending price auction. The auctioneer starts with the highest asking price and lowers it until it reaches a price level where the bids received will cover the entire offer quantity.

3 Greenium refers to the spread between green and non-green bonds with the same financial characteristics issued by the same issuer, suggesting green bonds have a pricing advantage over conventional bonds.

associated with a diversified portfolio of 27 investment projects amounting to COP 2 trillion, including water management (40 percent), clean transportation (27 percent), ecosystem services and biodiversity protection (16 percent), renewable energy (14 percent), and others (3 percent).

In April 2022, Colombia also became the first country in the Western Hemisphere to adopt a national green taxonomy—a classification system for economic activities and assets that make substantial contributions to Colombia's national environmental objectives and international commitments.

Colombia's green taxonomy has two main pillars. The first includes seven sectors (energy, construction, waste management, water management, transportation, information and communication technologies, manufacturing) and makes a substantial contribution to the environmental objective of climate change mitigation. The second includes three land use sectors (agriculture, forestry, livestock) and has five environmental objectives (climate change mitigation, climate change adaptation, land management, water management, conservation of ecosystems and biodiversity).

Colombia's taxonomy seeks to strike a balance between standardization and specificity. It follows international environmental sustainability standards such as the European Union Taxonomy, the International Capital Market Association's Green Bond Principles, and the Climate Bonds Initiative Taxonomy but also incorporates country specifics. For example, it is focused on agriculture, forestry, and land use, because these activities account for nearly 60 percent of Colombia's greenhouse gas emissions.

The country is also making progress in sustainable infrastructure. It ranks first in the world in regulation of infrastructure projects involving private capital, as evidenced in the latest Infrascope Index published by the Economist Intelligence Unit. Public-private partnerships have created an innovative, transparent scheme to provide high-quality infrastructure, optimize public resources, and attract national and foreign private investment.

In 2021, Colombia published guidelines for development of sustainable transport infrastructure projects for the fifth generation of concessions under public-private partnerships (Republica De Colombia 2021)—one of the most relevant advances the country has made in incorporating ESG guidelines into the structuring, risk valuation, and financing of infrastructure projects.

Incorporation of ESG criteria into public-private partnership contracts and risk assessments support financial innovation and issuance of thematic bonds for project finance. Multilateral development banks, international banks, and local institutional investors have refinanced several road concessions with credit enhancements in local and foreign currency and through social bonds, given the positive impact of these projects on communities. A new pipeline of multimodal projects, with an emphasis on river navigation, is being auctioned to increase competitiveness while reducing greenhouse gas emissions, preserving biodiversity, and increasing climate resilience.

Cesar Arias
General Director of Public Credit and National Treasury
Ministry of Finance and Public Credit of Colombia

July 2022

PREFACE

The COVID-19 pandemic has highlighted the risks that environmental, social, and governance factors pose to human health, economic resilience, and long-term sustainability of developing countries. As governments develop strategies and programs to address environmental and social vulnerabilities, they must mobilize resources to support implementation of these ambitious plans to end poverty, protect the planet, and ensure a sustainable future for all.

Dedicated financing tools designed to generate positive social and environmental outcomes ensure that sustainable investments are prioritized over business as usual. Green bonds are one of the financing tools that supranational organizations such as the World Bank, corporations, and increasingly governments, are using to raise capital from capital markets. Bond proceeds are used to support climate- and environmentally friendly development and appeal to an expanding pool of investors (e.g., pension funds) seeking investment opportunities with positive environmental and social impacts.

Colombia has paved the way by issuing the first sovereign green bond in local currency in Latin America and the Caribbean on September 29, 2021. This is in line with Colombia's national commitments, policies, and strategies for environmentally sound, low-carbon economic development. It also corresponds with Colombia's debt management strategy (2018-2022), which was designed to broaden and diversify the investor base, reduce foreign exchange risk (by pursuing domestic currency financing), and develop domestic debt and capital markets. The World Bank is pleased to have supported and facilitated the transaction by providing technical assistance under the Sustainable and Competitive Infrastructure Programmatic Approach project funded by the Nationally Determined Contributions Support Facility. The transaction won the sovereign green bond of the year award in 2022 from Environmental Finance. On behalf of the World Bank Group, I congratulate the government of Colombia on this groundbreaking transaction. In addition, alternative financing instruments such as green bonds allow ministries of finance to broaden the range of debt instruments used to implement prudent debt management strategies and change the risk profile of their public debt portfolios.

The World Bank originally developed the green bond to help investors support positive actions to mitigate climate risk in their investment portfolios. We are pleased that the green bond concept has expanded in recent years to other types of labeled sustainable bonds. Drawing from its own experience, the World Bank works with emerging markets to develop sustainable financial systems and facilitate issuance of green and other sustainable bond transactions. Since the first labeled green bond was issued in 2008, more than 27 countries have issued sovereign green, social, or sustainability bonds, including developing countries such as Benin, Chile, Ecuador, Egypt, Fiji, Guatemala, Nigeria, Indonesia, Malaysia, Mexico, and Thailand. The World Bank's technical advisory program has supported several of these transactions, ensuring alignment with best practices while adapting the approach to each country's needs, priorities, and institutional arrangements.

This case study of green bonds, a joint product of the World Bank and the government of Colombia describes the context in which the government was motivated to embark on the journey and chronicles the Ministry of Finance and Public Credit's experience in structuring and issuing the bond. The intention is to capture lessons learned and provide other developing countries with a broad understanding of what they need to consider in designing and issuing such financial instruments. We hope that other countries will benefit from Colombia's experience using innovative financing tools as part of their efforts towards sustainable development.

Jorge Familiar
Vice President & Treasurer
World Bank

July 2022

ABOUT THE WORLD BANK GROUP: MISSION AND STRATEGY

The International Bank for Reconstruction and Development (IBRD), an international global development institution owned by 189 member countries, was established in 1944 and is the original member of the World Bank Group (WBG). As the largest development bank in the world, it supports the mission of the WBG by providing loans, guarantees, risk management products, and advisory services to middle-income and creditworthy low-income countries. The IBRD and the International Development Association (IDA), which was established in 1960 and lends to low-income countries, are known collectively as the World Bank and share the same leadership and staff. The IBRD and the IDA issue bonds in the international capital markets to support the development mission.

At the heart of the WBG's strategy are two goals that its Board of Governors endorsed in 2013:

- End extreme poverty: Reduce to 3 percent the proportion of people living on less than USD 1.90 a day by 2030.
- Promote shared prosperity: Foster income growth for the bottom 40 percent of the population in every developing country.

To deliver on the twin goals and support the Sustainable Development Goals (SDGs), WBG management and shareholders have agreed on three main priorities for our work with developing countries, including those affected by fragility, conflict, and violence: accelerate sustainable and inclusive growth, invest in human capital, and strengthen resilience.

This overarching strategic framework rests on four pillars: serving all clients in low- and middle-income countries; creating markets, mobilizing finance for development, and expanding the use of private sector solutions; leading on global issues; and improving how we do business to be agile, efficient, and closer to clients. The WBG is committed to bringing together the international community in the urgent task of achieving the goals by 2030. They can be reached only through collaboration of all partners, including countries, other institutions, civil society, and the private sector.

The WBG consists of five organizations: the IBRD, IDA, International Finance Corporation, Multilateral Investment Guarantee Agency, and International Centre for Settlement of Investment Disputes.

ABOUT THE WORLD BANK TREASURY

The World Bank Treasury ensures the long-term financial sustainability of the World Bank (IBRD and IDA) and manages the Bank's finances to enable all operations and lending by:

- Proactively managing our balance sheet to safeguard our triple-A ratings and our strong financial position
- Strategically and cost-effectively raising funds from global capital markets and providing financing to our borrowing clients
- Managing and administering assigned internal and external portfolios effectively and delivering targeted excess returns within approved risk limits

The Treasury acts as a trusted adviser to member countries seeking to maximize finance for development and support financial stability and resilience by:

- Applying international best practices to managing client assets and reserves
- Developing innovative sustainable financing solutions for climate, pandemic, refugee crisis, and infrastructure development, among other priorities
- Leading and shaping the debate on sustainable finance
- Offering mechanisms to reduce risks and promote private sector investment

WORLD BANK TREASURY SUSTAINABLE FINANCE AND ENVIRONMENTAL, SOCIAL, AND GOVERNANCE ADVISORY SERVICE PROGRAM

The Treasury's Financial Products and Client Solutions team works with policy makers, ministries of finance, regulators, central banks, supervisors, and World Bank project teams to develop sustainable financial systems by:

- Advising on approaches public authorities can use to promote green finance and manage climate-related risks
- Promoting financing to support green, sustainable investments
- Helping borrowers consider sustainable financial instruments as part of a menu of options available to low-and middle-income borrowers
- Facilitating issuance of market-based sustainable financing (green, blue, social, and sustainable bonds)
- Building the capacity of borrowers to engage with investors who incorporate environmental, social, and governance considerations into investment decisions
- Advising the global practices and project teams
- Publishing knowledge products and writing and peer reviewing papers

1

OVERVIEW OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE INVESTMENT AND SUSTAINABLE BOND LANDSCAPE

The terms "sustainable finance" and "environmental, social, and governance (ESG) finance" are synonymous and refer to debt or equity financial services or investment decisions that consider ESG criteria. According to Bloomberg Intelligence, global ESG assets are expected to exceed USD 50 trillion by 2025. Projected growth by 2025 represents one-third of the USD 140.5 trillion in projected total assets under management globally.

Sustainable bonds allow issuers to access investors using ESG strategies, particularly those interested in generating positive, measurable social and environmental impact alongside financial return. Governments can attract these investors mainly by issuing two types of sustainable bonds: use-of-proceeds and outcome-linked bonds (the latter also known as sustainability-linked bonds).

Use-of-proceeds bonds include green,[4] climate,[5] climate-aligned,[6] blue,[7] social,[8] and sustainability bonds,[9] which attract investors by committing funds to programs, projects, or assets that are deemed to be environmentally or socially beneficial and are labeled as such. Labeled sustainable bonds are encouraged to follow International Capital Market Association (ICMA) standards and guidelines (Green Bond Principles (ICMA 2021a), Social Bond Principles (ICMA 2021b), Sustainability Bond Guidelines (ICMA 2021c)) or Climate Bond Standards (CBI 2022).

Sustainability-linked bond proceeds can be used for general purposes, but the issuer must commit to making progress toward pre-identified sustainability-related targets (e.g., less carbon intensity, greater use of renewables, reaching underserved populations) and pays a penalty (e.g., higher interest or coupon rate or other pre-negotiated term) if it fails. Issuers are encouraged to align these bonds with the Sustainability-Linked Bond Principles (ICMA 2021d).

Sustainable bonds appeal to issuers and investors alike because the recourse is to the balance sheet of the issuer, and therefore there is no difference between these bonds and traditional bonds

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4 Proceeds exclusively finance or refinance new and existing environmental or climate projects.

5 Proceeds exclusively finance or refinance climate change projects.

6 Proceeds fill the gap for financing underlying climate-aligned activities that may not be as visible and transparent as labeled bonds but address climate and promote a low-carbon economy. https://www.dbs.com.sg/corporate/sustainability/climate-aligned-bonds.

7 Proceeds exclusively finance or refinance marine and ocean-based projects with environmental, economic, and climate benefits. https://www.worldbank.org/en/news/feature/2018/10/29/sovereign-blue-bond-issuance-frequently-asked-questions.

8 Proceeds finance or refinance new and existing projects with positive social outcomes.

9 Proceeds exclusively finance or refinance a combination of green and social projects.

in terms of credit risk. For issuers, the advantage of issuing sustainable bonds lies in the potential to access a wider investor base. Conventional investors also buy these bonds.

The combined labeled issuance of green, social, sustainability, and sustainability-linked bonds totaled slightly more than USD 1 trillion at the end of 2021, which is nearly 100 percent year-on-year growth from 2020 and 11 percent of global bond issuance (S&P Global Ratings 2022). Supranational organizations (e.g., World Bank, International Finance Corporation, Asian Development Bank, African Development Bank, KfW), banks and other financial institutions, corporations, cities, municipalities, and national governments issued these bonds.

Green bonds are still the dominant use-of-proceeds category in developed and emerging markets. Despite domination by corporate and financial institution issuance, national governments have increased their share of global green bond issuance in the last 2 to 3 years. As of March 2022, 27 countries had issued sovereign green, social, and sustainability bonds. Among these are several developing countries (Benin, Chile, Ecuador, Egypt, Fiji, Guatemala, Nigeria, Indonesia, Malaysia, Mexico, Thailand). In 2021, Colombia became the first Latin American country to issue a green sovereign bond in local currency.

2 COLOMBIA COUNTRY CONTEXT

The Andes Mountains traverse Colombia, which has lowland plains in the east and is in the northwest corner of South America. Colombia has a 3,208-kilometer coastline along the Pacific Ocean to the west and the Caribbean Sea to the north. The northern edges of the Amazon Basin's tropical rainforests are in the southeast. The country is the 25th largest nation in the world, covering 1,138,910 square kilometers of land, and had an estimated 50.8 million people in 2020, with projections suggesting the population could reach nearly 56 million by 2050.[10]

Colombia has a diverse range of ecosystems, such as páramos, mangroves, wetlands, coral reefs, glaciers, oceans, and tropical forests, as well as significant biodiversity and water resources. Colombia is also highly vulnerable to the impacts of climate variability and change, experiencing damaging droughts and floods. Heavy rains in 2010 and 2011 caused more than USD 6 billion in damage to crops and infrastructure and displaced many. The coffee industry, the largest source of rural employment in the country (BizLatinHub 2021; IADB 2020), is highly vulnerable to rising temperatures and hydrologic events. Availability of water depends heavily on glacier melt; with rising temperatures, it is projected that glaciers will continue to recede.

Colombia's nationally determined contribution (NDC) to the United Nations Framework Convention on Climate Change is considered among the most ambitious in Latin America and the Caribbean. The updated submission in 2020 targets reducing greenhouse gas emissions by 51 percent from the baseline scenario by 2030.[11]

The World Bank has been a long-time partner in Colombia's development, supporting the government's development goals by deploying financial and advisory services in the following strategic areas:

- Balanced territorial development
- Greater service delivery to enhance social inclusion and mobility
- Fiscal sustainability and productivity

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[10] Data from the Climate Change Knowledge Portal (database). World Bank Group, Washington, DC (accessed March 21, 2022), https://climateknowledgeportal.worldbank.org/country/colombia

[11] Data from the Climate Change Knowledge Portal. World Bank Group, Washington, DC (accessed March 21, 2022), https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15520-WB_Colombia%20Country%20Profile-WEB%20%283%29.pdf

2.1 Colombia's Macroeconomic Context

In the last decade, Colombia has consolidated its position among the top economic performers in Latin America with prudent macroeconomic and fiscal management anchored on an inflation-targeting regime, flexible exchange rate, and rule-based fiscal framework, which enabled the economy to grow uninterrupted from 2000 to 2019 and provided policy space to respond to the COVID-19 crisis (WBG 2016).

2.2 Recent Economic Development

The COVID-19 pandemic was a shock to the world economy. In Colombia, the authorities promptly enacted a range of monetary and fiscal measures to support firms and households. The Central Bank progressively cut the monetary policy rate from 4.25 percent in March 2020 to a historic low of 1.75 percent in September 2020, lowered reserve requirement ratios, purchased public and private securities, and activated U.S. dollar swap lines.

To ensure adequate fiscal support, the suspension exception clause of the fiscal rule was activated, and the fiscal rule was suspended for 2020 and 2021,[12] allowing the government to expand social protection (through existing and new programs), provide tax relief to companies, and provide support so that struggling firms could maintain employment. These measures helped contain the contraction of GDP and private consumption but not of gross fixed capital formation, which declined 23.3 percent as private and public investment fell. Fiscal emergency measures and the fall in nominal GDP pushed the central government deficit to a record 7.8 percent of GDP in 2020 and the gross (unconsolidated) general government debt-to-GDP ratio to 67.2 percent at the end of 2020.13

The economic rebound has been stronger than anticipated, and GDP grew 10.6 percent in 2021, reaching its 2019 level by the end of the year on the back of the removal of mobility restrictions and the consequent reactivation of the economy (which were possible thanks to progress in vaccination and the reduction in the number of COVID-19 cases) and despite protests and strikes in April through June in opposition to an ambitious fiscal reform package aimed at increasing equity and economic growth within a sustainable fiscal framework. Activity in manufacturing was the main driver of growth (surpassing the pre-COVID-19 trend), whereas activity in mining and construction remained below 2019 levels. Consumption was the main driver of GDP growth in 2021, whereas investment and exports contributed only marginally and remained below 2019 levels.

After hovering around 0 for most of 2020, inflation quickly increased in early 2021, breached the Central Bank's target (3.0 percent) before the end of the year, and climbed to 9.2 percent in April 2022, driven primarily by food prices. In this context, the Central Bank began its monetary normalization process

12 Colombia's fiscal rule mandated a reduction of 0.8 percent of gross domestic product (GDP) in the central government fiscal deficit between 2019 and 2022, which would have brought the structural deficit of the central government to 1 percent of GDP in 2022. In May, the flexibility built into the fiscal rule allowed the 2020 deficit ceiling to be resettled to 6.1 percent of GDP (up from 2.2 percent established in the 2019 medium-term fiscal framework). On June 15, 2020, the Consultative Committee on the Fiscal Rule endorsed the government's request to suspend the fiscal rule during 2020 and 2021 because of the need for greater fiscal flexibility because of the economic crisis that the COVID-19 pandemic and its related economic impact caused. The suspension is contemplated in Article 11 of the Fiscal Rule Law 1473, which provides for greater flexibility or deferment of the fiscal rule under extenuating economic circumstances. The Fiscal Rule Advisory Committee unanimously backed suspension of the fiscal rule for 2020 and 2021. The government committed to the parameters set out in the fiscal rule in 2022.

13 The consolidated debt of the general government was 58.4 percent of GDP.

in September 2021 and raised the policy rate to 4.0 percent in January, 5.0 percent in March, and 6.0 percent in May. The current account deficit, which declined to 3.4 percent of GDP in 2020, reached 5.7 percent of GDP in 2021 as imports and distribution of dividends resumed while export receipts, especially from tourism, remained below pre-pandemic levels. The central government's deficit declined to 7.1 percent of GDP as recovery buoyed tax revenues, offsetting the increase in spending.

The government's financing needs for 2021 were 9.4 percent of GDP, including the deficit (7.1 percent of GDP), amortization (2.0 percent of GDP), and payment for judicial rulings (0.3 percent of GDP). The execution of the 2021 funding program allowed the government to cover all financing needs for the year and pre-finance part of the 2022 budget.

Motivated by the failed attempt in April to pass a package of fiscal reforms and reduced confidence in government capacity to consolidate public finances, on May 19, 2021, S&P downgraded Colombia's long-term foreign currency rating from BBB- to BB+ and revised its outlook from negative to stable, and on July 1, 2021, Fitch did the same. On July 20, 2021, the government submitted a new fiscal bill to Congress called the Social Investment Law that included a set of measures intended to protect the most vulnerable populations, reactivate economic activity, and stabilize public finances. On September 7, 2021, Congress approved the bill, and on September 14, 2021, President Duque enacted the *Ley de Inversión Social* as Law No. 2155 of 2021. On October 6, 2021, Moody's affirmed Colombia's long-term foreign currency rating at Baa2 and changed the outlook to stable from negative; on December 9, 2021, Fitch affirmed Colombia's long-term foreign currency rating at BB+ with a stable outlook, and S&P did so on May 5, 2022.

2.3 Macroeconomic Outlook

As of April 2022, it was projected that real GDP would grow 4.4 percent in 2022, supported by consumption on the demand side and commerce and manufacturing on the supply side (World Bank 2022).[14] Over the medium term, it is projected that growth will slow gradually to 3.3 percent in 2025 as GDP moves closer to (but remains below) its pre-COVID-19 trend. It is projected that the current account deficit will decrease to 4.5 percent of GDP in 2022 (mostly supported by higher oil prices) and then stabilize over the medium term (around 4.4–4.6 percent of GDP), as exports of services resume, import growth slows, and the flow of remittances normalizes to pre-COVID levels. It is projected that net foreign direct investment inflows will finance most of the current account deficit over the medium term.

With inflation projected to remain above the target for 2022, the output gap projected to narrow, and spare capacity in the economy to be used, the space to maintain an accommodative monetary policy will shrink. It is projected that interest rates will keep increasing in 2022, with the amount and timing depending on the persistence of inflation and the speed at which the world's major central banks normalize their rates. As of February 2022, it was projected that the central government deficit would decline to 6.2 percent of GDP in 2022 and continue to decline as COVID-19-related health spending and emergency income support come to an end and the effects of the tax reforms approved in September 2021 kick in.[15] Over the medium term, it is expected that increasing tax collection and tight control of spending will reduce the deficit.

14 This projection will be subject to revision in June 2022.

15 According to the 2022 financial plan, the government expects the central deficit to decrease from 7.1 percent of GDP in 2021 to 6.2 percent in 2022.

2.4 Colombia's Sovereign Debt Portfolio

Colombia's central government debt reached USD 188 billion[16] in April 2022—equivalent to 56.6 percent of GDP (projected for 2022) (Table 1).

An update from the Ministry of Finance and Public Credit (MHCP) on February 4, 2022, indicated that Colombia will issue COP 75.9 trillion (USD 19.4 billion) in public debt in 2022, down from an earlier projection of COP 102.0 trillion (USD 26.1 billion). Nearly 71 percent of the total issuance is expected to come from local treasury bonds (Minhacienda. n.d.).

In the past year, Colombia has demonstrated stronger-than-expected economic recovery, supported by the government's prudent macroeconomic management and promotion of policies that will help stabilize debt.

TABLE 1. Colombia's Government Debt Statistics as of April 2022

Total debt outstanding and currency breakdown		
Total public debt (USD billion)	188.0	
Debt to gross domestic product ratio (2022 projected year-end)	56.6%	
U.S. dollar	34.2% of total	
Euro	3.4% of total	
Unidad de Valor Real (COP)[a]	18.6% of total	
COP	43.8% of total	
Average cost and refinancing risk	**Domestic**	**Foreign**
Average coupon COP	9.2%	–
Average coupon USD	–	4.1%
Average time to maturity (years)	8.6	11.5
Duration (years)	5.8	6.2

Source: Ministry of Finance and Public Credit.
a. A notional currency that reflects the inflation-adjusted Colombian peso (COP).

[16] An exchange rate of 1 USD = COP 3,966.27 has been used throughout this report.

2.5 Colombia's Debt Management Strategy 2018–22

According to guidelines from the IMF (2014), public debt management is the process of establishing and executing a strategy for managing the government's debt to raise the funding needed at the lowest possible cost over the medium to long run consistent with a prudent degree of risk.

International sound practices suggest that debt managers should be guided by a formal medium-term debt management strategy that lays out the government's funding objectives for the medium term (in general 3 to 5 years), is typically expressed through a set of risk indicators—or benchmarks—that define the government's cost-risk tradeoffs, and is linked to the degree of domestic market development and the overall macroeconomic context of the country.

In 2013, Colombia issued its first formal debt management strategy for 2013 to 2017 (MHCP 2013). At that point, Colombia was aiming to increase the share of domestic currency debt in its portfolio to 75 percent, increase the average life of domestic and external debt, and maintain a share of 95 percent of fixed-rate debt.

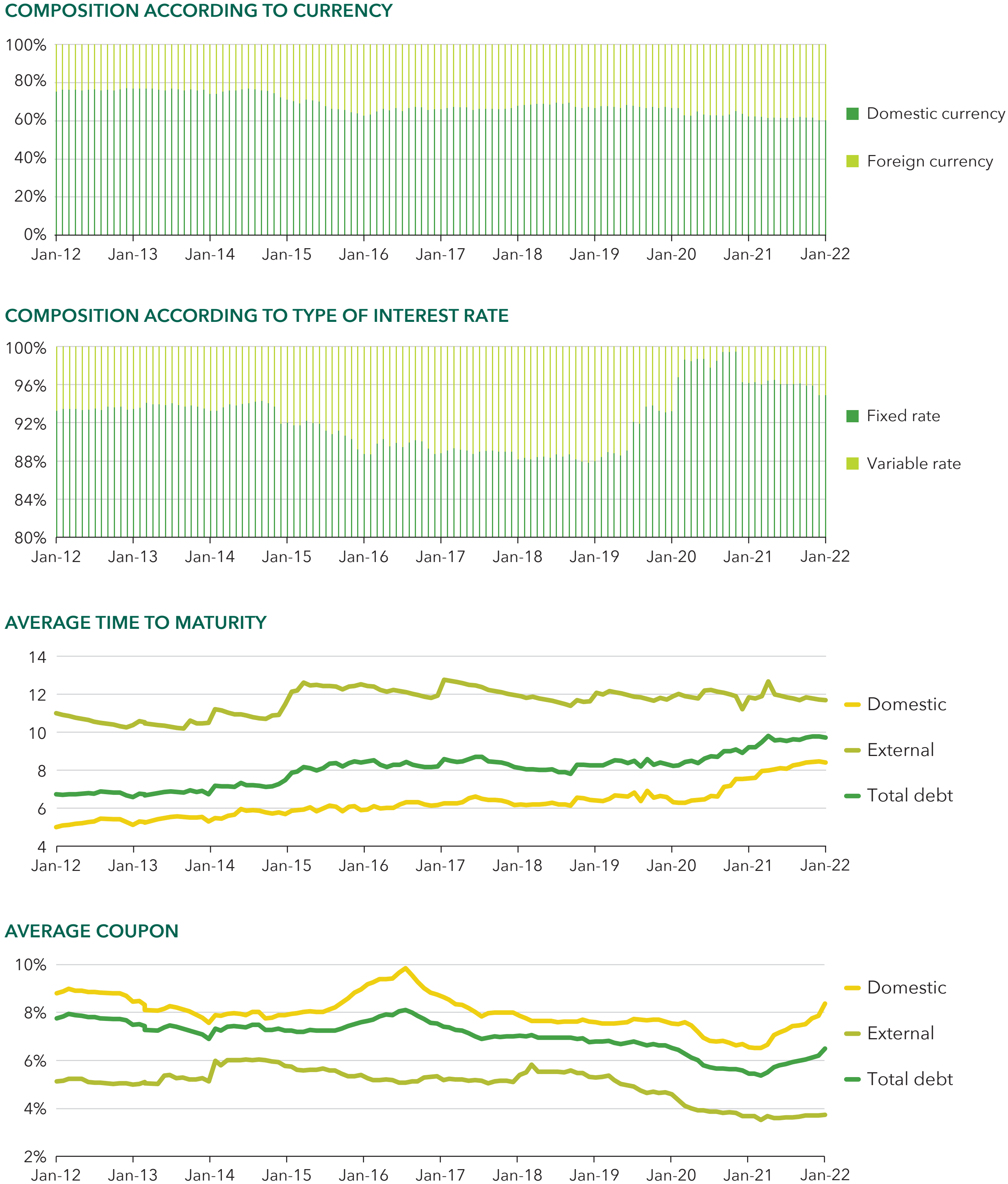
During implementation of the strategy, Colombia was able to increase the average life of its domestic and external debts, although shares of domestic and variable debt did not move in the expected direction, mainly because of depreciation of the Colombian peso, which increased the relative share of foreign currency debt and affected the variable-rate debt indicators (because loans from multilateral organizations are primarily contracted at variable rates).

In that context, in 2018, Colombia issued a new debt management strategy for 2018 to 2022 designed to optimize management of its financial resources considering a sophisticated capital market that demands clarity in the objectives and financing tools of the central government (General Directorate of Public Credit and National Treasury and Ministry of Finance and Public Credit 2018).

The current strategy also brought some innovations. First, in terms of the underpinning analytical framework, the strategy's scope was expanded to assess different interest rates and tenors in addition to different currencies. The currency mix was also expanded to include issuances in euros and broaden the investor base. The cost-risk analysis and projection of macro variables was also further integrated with the development of the medium-term fiscal framework. Finally, the governance process around strategy development and implementation was also strengthened.

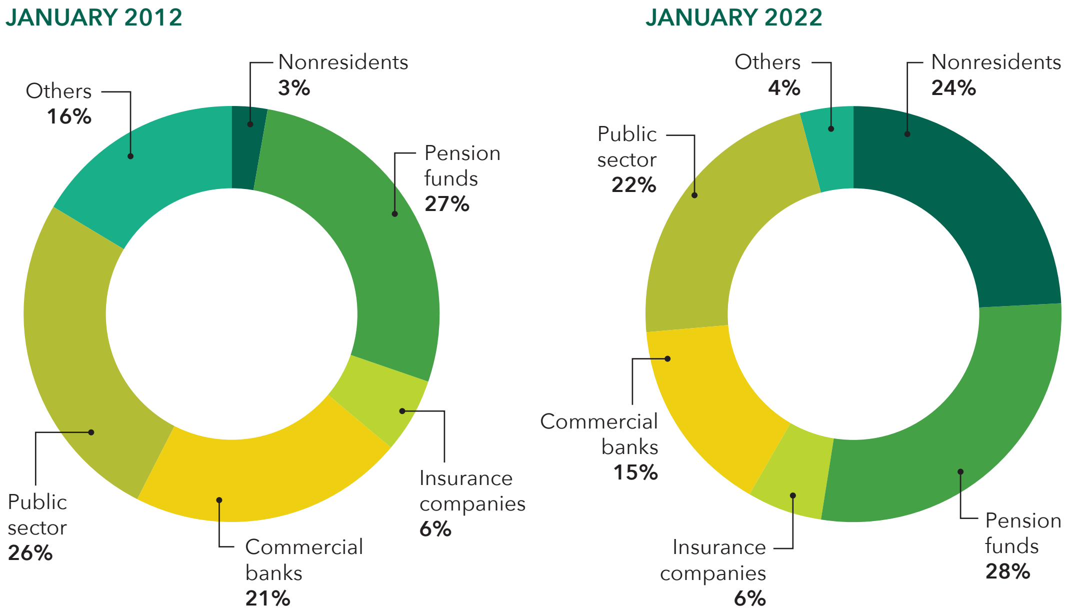
Colombia has been aiming at reducing (i) the refinancing risk—by increasing the average time to maturity of the debt portfolio and smoothing the maturity profile, (ii) the foreign exchange risk—by pursuing a higher share of domestic currency financing, and (iii) the interest rate risk—by keeping a high share of the portfolio in fixed rates (see Figure 1 below).

FIGURE 1. Evolution of Cost and Risk Indicators



Source: Ministry of Finance and Public Credit.

FIGURE 2. Holders of Domestic Bonds



Source: Ministry of Finance and Public Credit.

Another goal outlined in both strategy documents was to broaden and diversify the investor base. Nonresident holdings of domestic debt increased from 3 percent in 2012 to 24 percent in 2022 (Figure 2). The investors classified as nonresidents are a diverse group composed of real money investors, hedge funds, and sovereign wealth funds. Diversification of the investor base was also reflected in the reduction of the share of domestic debt that commercial banks held (from 21 percent in 2012 to 15 percent in 2022).

In international markets, Colombia has also looked for investor base diversification by issuing in the euro market and obtaining multilateral and bilateral debt in euros in addition to the more frequent U.S. dollar issuances.

To diversify its investor base, Colombia took several measures to develop the domestic debt and capital markets, including review of the Primary Dealer Program Allocation (*Programa de Creadores de Mercado*), revamp of the funding plan to foster creation of benchmark securities, introduction of liability management operations, and development of a securities-lending facility.

2.6 Colombia's Environmental Context

Colombia faces several environmental challenges, including climate change. Some of these are discussed below.

Transport. The transport sector accounts for 11 percent of Colombia's carbon dioxide (CO_2) emissions (IDEAM, Fundación Natura, PNUD, MADS, DNP, CANCILLERÍA 2021) and is the largest source of air pollution in urban areas. The sector was also responsible for 41 percent of the country's energy-related CO2 emissions in 2019 (Climate Transparency 2020). CO2 emissions from transport could increase from 30 million tons in 2010 to 70 million tons in 2040 (Ministry of Transport 2014). The health costs associated with urban air pollution were equivalent to an estimated 1.9 percent of GDP in 2015 (DNP 2015).

Air pollution. Ambient air pollution is a significant contributor to environmental degradation and health damage in Colombia. Use of diesel in cargo transport is a significant source of emissions, including toxic substances, with adverse impacts on human health. Approximately 5,000 premature deaths and 65 million disability-adjusted life years are related to urban air pollution each year (Golub et al. 2014).

Forest. Increasing pressure from extensive cattle ranching, expansion of the agricultural frontier, illegal logging and mining, land grabbing, unplanned road infrastructure, and other underlying factors led to the loss of more than 6 million hectares of natural forests from 1990 to 2016—equivalent to 8 percent of national forest cover (MADS and IDEAM 2018). Deforestation accounted for 33 percent of Colombia's emissions in 2012 (IDEAM, Fundación Natura, PNUD, MADS, DNP, CANCILLERÍA 2021).

Biodiversity. Colombia is one of 12 countries catalogued worldwide as megadiverse and is home to nearly 10 percent of the world's known species, although nearly half of the ecosystem types, terrestrial and marine, are at high risk of loss (27 percent critical, 17 percent endangered), presenting conditions that put their permanence and provision of services to society at risk (Environmental Information System of Colombia 2022).

Energy. Although more than 60 percent of Colombia's electricity comes from hydropower and 14 percent from nonconventional renewable energy sources, nearly 26 percent of primary energy consumption originates in fossil fuels. A critical constraint on development of nonconventional renewable energy is lack of funding. Furthermore, changes in rainfall pattern and temperature are likely to affect river basins where hydropower plants are located, posing a systemic risk to the power generation system.

Water and sanitation. Most municipalities discharge untreated wastewater directly into water bodies within urban limits, with only 42.6 percent of urban wastewater treated (DNP 2019), and more than half of wastewater treatment systems do not operate properly or regularly. Forty percent of the principal water basins in the country are vulnerable to deterioration—with areas of major economic activity being most affected—because they receive highly polluted wastewater from point and diffuse sources. The growing effects of climate change, notably low and variable flows, will further degrade water resources. Moreover, inadequate water, sanitation, and hygiene impose a high economic burden and are an important cause of death and disease in Colombia.

Solid waste. Although Colombia has made important strides in collection and final disposal of solid waste, and 82.8 percent of municipalities treat solid waste properly, there is an important rural-urban gap in waste collection and availability of adequate final disposal sites, posing a risk to the environment and human health. Only 53 of 1,122 municipalities incorporate some form of formal reuse into their solid waste management activities, which does not significantly affect the final disposition.

Chemical substances. In 2015, more than 33,000 cases of poisoning occurred because of inadequate handling and management of chemical substances (DANE 2015). To address rising cases of chemical hazards, the Colombian government published Decree 1630/2021 on November 30, 2021 that will establish a national inventory for industrial chemicals (MADS 2021). The decree applies to industrial chemicals identified as hazardous under the Globally Harmonized System of classification and labelling of chemicals and is seen as an important step towards building a regulatory framework by the end of 2025 for sound management of chemicals.

The government has committed to balancing economic development and environmental conservation through the 2018–2022 National Development Plan (NDP): Pact for Colombia, Pact for Equity, specifically in the Sustainability Pact, which has four lines of action (MHCP 2021) focused on the circular economy and climate change mitigation, conversion of biodiversity and natural capital into national strategic assets, reduction of natural disaster risks and facilitation of climate change adaptation, and strengthening of environmental institutions and research. These lines of action build on the commitments of the United Nations 2030 Agenda, the Paris Agreement, and Organization for Economic Cooperation and Development environmental standards.

Colombia has developed a series of the policy documents issued by the Economic and Social Policy Council (CONPES) to reduce the impact on natural resources that all cabinet members have approved. The government also adopted a national program for payment for environmental services and recently approved an energy transition law. In the latest update to the NDC in 2020, the government pledged to limit emissions to 169.44 million tons of CO2 equivalent in 2030 (a 51 percent reduction in emissions from the 2030 emissions forecast under the reference scenario). As part of its efforts to mitigate and adapt to climate change, through Decree No. 298 of 2016, Colombia has established the National Climate Change System and formulated the National Climate Change Policy and the Climate Action Law No. 2169 of 2021, which establishes guidelines, actions, and strategies to foster sustainable, low-carbon development. In addition, under the Climate Change Law No. 1931 of 2018, the ministries and departmental authorities that participate in the National Climate Change System must formulate and implement comprehensive sectoral climate change management plans that incorporate greenhouse gas mitigation and climate change adaptation measures into the policies and regulations of their sectors. The law also requires establishment of an emissions trading system. The 2016 tax reform has already introduced a modest carbon tax.

In line with these national commitments, policies, and strategies, the public finance sector has been considering climate and environmental challenges in its economic, fiscal and financial policies. Such consideration focuses on helping the country meet environmental aspects of the SDGs by establishing measures that help mobilize resources through green finance, including development of carbon pricing instruments, strategies for the financial sector, a disaster risk finance strategy, macroeconomic modeling involving these concepts, and development of green bonds. Government-issued green bonds could attract much-needed capital for economic development aligned with the government's national and international commitments to achieving an environmentally sound, low-carbon future.

3

SOVEREIGN GREEN BONDS

3.1 Rationale and Motivation

As discussed in Section 2.4, Colombia has made policy commitments to address environmental risks and challenges, including policies to protect natural resources.

Implementing these national strategies and policies designed to address environmental challenges will require unprecedented levels of investment in sustainable, low-carbon technologies, services, and infrastructure. Mobilizing resources will be essential to enable the required capital flows, but successful allocation of resources to investments considered strategic for the country requires coordination of fiscal and financial resources, incentives, and connecting public and private sector actors.

Colombia has advanced development of a policy framework that fosters implementation of innovative sustainable finance initiatives and instruments with high environmental and social impact and has been designing green finance initiatives and promoting dialogue between the public and private sectors, including the National Climate Change System Financial Management Committee, the National Climate Finance Strategy, the Green Protocol, the Task Force on Responsible Investment, and the 2018–22 NDP. In particular, the MHCP, aware of the difficulties of achieving environmentally sound, low-carbon economic development, has channeled its efforts into ensuring that investment strategies support the country's climate and environmental commitments.

The MHCP has joined the Coalition of Finance Ministers for Climate Action, which seeks global action on climate change, reaffirmation of commitments, and acceleration of actions to implement the Paris Agreement. After the coalition was launched, it established the Helsinki Principles—six principles that promote national climate action, especially through fiscal policy, use of public finance, and promotion of private financing.

These principles are reflected in the Comprehensive Sectorial Climate Change Management Plans of the MHCP, which includes actions related to public finance, macroeconomic and fiscal policies, green budgets, transparency of financial risks caused by climate change, and development of economic and financial instruments, which together enable implementation of climate change goals and the SDGs.

In this context, one of MHCP's missions is to implement a roadmap for development of the green bond market as a public funding tool to meet the country's environmental, climate, and sustainability targets.

The national government uses three main funding sources: issuance of public debt securities in the domestic capital market (long- and short-term treasury bonds), issuance of public debt securities in international capital markets through the placement of global bonds, and loans from multilateral and bilateral development banks and other funding sources. The funding strategy is based on broad diversification of sources, lenders, strategic partnerships, and local and foreign investors.

In view of this, the government of Colombia included use of green bonds as a public policy tool to channel resources to green initiatives that promote sustainable economic growth, diversify its investor base, encourage participation of other Colombian issuers in the green bond market, and attract socially and environmentally responsible investors to the country. Issuance of sovereign green bonds was expected to send a clear signal to the market about:

- Colombia's commitment to fostering sustainable finance mechanisms that enable development of a low-carbon, climate-resilient economy oriented to conservation of ecosystems and biodiversity
- Development of a green bond market with a diversified investor base and potentially more-competitive funding costs for public and private issuers
- Alignment of financial, social, and environmental incentives for key actors, such as the government, the private sector, investors, multilateral banks, and international cooperation agencies

3.2 Colombia's Sovereign Green Bond Framework

Under Article 4 of Law No. 2073 of 2020, the MHCP is responsible for establishing the Sovereign Bond Framework for Sustainable Development Financing. Therefore, through an administrative act, the MHCP designed and adopted the framework for the issuance of sovereign thematic bonds such as green, social, sustainable, blue, and other thematic bonds deemed suitable for and related to expenditures included in the national budget to foster sustainable development.

The Green Bond Framework establishes pre- and post-issuance procedures to be used to issue Colombia's green bonds in line with the ICMA Green Bond Principles. It:

- Defines the roles and responsibilities of the MHCP, the National Planning Department (DNP), relevant line ministries, and other entities related to the transaction before and after the issuance of green bonds, in line with their respective functions
- Facilitates identification of eligible green expenditures
- Outlines post-issuance allocation and impact-reporting commitments

The framework applies to all sovereign green bonds, whether in local or international capital markets, which must also comply with Colombia's public debt regime as it relates to issuance of government bonds. The MHCP, through the General Directorate of Public Credit and National Treasury, is responsible for preparing and updating the framework as necessary, supported by the DNP; the Ministry of Environment and Sustainable Development; and the Institute of Hydrology, Meteorology, and Environmental Studies of Colombia (IDEAM).

As with all general recourse bonds, principal and interest payments for bonds issued under this framework will be made from the debt service appropriations in the national budget and executed by the General Directorate of Public Credit and National Treasury and do not depend on the performance of eligible green expenditures. Investors in the bonds issued under this framework do not assume any risk related to specific projects indicated in the green portfolio, and green bonds issued under the framework rank equally with each other and with other domestic debt securities or external bonds that Colombia issues. Green bonds are identical to conventional bonds but with an additional green commitment.

Colombia's framework is aligned with the ICMA (2021a) Green Bond Principles and follows its four core components:

- Use of proceeds: Use of bond proceeds for eligible green projects should be appropriately described in the legal documentation of the security.
- Process for project evaluation and selection (governance): The issuer of the green bond should clearly communicate to investors the environmental sustainability objectives of eligible green projects, the process by which the issuer determines how the projects fit within the eligible green project categories, and complementary information on processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant projects. Issuers are encouraged to have a process to identify mitigants to any known material risks of social or environmental harm arising from the project being funded.
- Management of proceeds: The proceeds of a green bond must be managed carefully to ensure transparency regarding how the proceeds were applied to the selected project. An external review is recommended to verify the issuer's internal tracking methods.

- Reporting: Issuers should make information on use of proceeds readily available and keep it up to date so that it can be renewed annually until full allocation and on a timely basis in case of material developments.

An independent external reviewer (Vigeo Eiris) reviewed the framework in accordance with the ICMA Green Bond Principles (2021 edition).

3.3 Use of Proceeds, Governance, and Management of Proceeds

USE OF PROCEEDS

Colombia will use green bond proceeds to finance, in part or in full, eight eligible green expenditure categories in the fiscal year preceding issuance, the year of issuance, and the fiscal year after issuance. Selected categories for investment include clean transportation, sustainable agriculture, ecosystem services and biodiversity, waste and the circular economy, management of natural disaster risks associated with climate change, sustainable water management and use and sanitation, sustainable buildings, nonconventional energy sources, energy efficiency, and connectivity.

Based on the categories selected, investment potential for ESG-focused investors is more diversified than for other sovereign issuers (Table 2). The external review confirmed that eligible expenditures are consistent with international best practice and aligned with the Green Bond Principles.

The proposed portfolio of projects includes eligible green expenditures totaling COP 2 trillion (USD 511.4 million) distributed across 27 projects in six categories.

TABLE 2. Distribution of Funds Across 27 Projects in Six Categories

Project	Entity	Examples of indicators	Allocation amount (COP billion)
Sustainable water management, use, and sanitation			**805.98**
Institutional strengthening of national policy for integral management of water resource	Ministry of Environment and Sustainable Development	Number of documents that provide technical guidelines for climate change management	6.95
Financial support to facilitate access to drinking water and wastewater management services	Ministry of Housing	Number of projects to promote efficient water use and savings Number of wastewater management projects	695.87
Water sanitation in prioritized basins in the national territory	Ministry of Housing	Cubic meters of water treated	55.15
Strengthening of national hydrological, meteorological, and environmental knowledge management	Institute of Hydrology, Meteorology, and Environmental Studies of Colombia	Number of regional institutional programs to monitor water quality and quantity	48.01
Clean, sustainable transport			**543.96**
Construction of section 1 of first line of Bogotá metro	Ministry of Transport	Reduction of greenhouse gas emissions from baseline scenario Number of air quality surveillance and monitoring networks Kilometers of urban roads built or improved for operation of public transportation services Number of stations, terminals, or additional construction projects built or improved for operation of public transportation systems	306.77
Construction of phases II and III of extension of Transmilenio Soacha system	Ministry of Transport		54.26
Implementation of integrated mass transportation system in Cartagena	Ministry of Transport		18.93
Implementation of integrated mass transportation system in Cali	Ministry of Transport		85.49
Implementation of integrated mass transportation system Envigado, Medellín, Itagüí	Ministry of Transport		78.51

(continues on next page)

TABLE 2. Distribution of Funds Across 27 Projects in Six Categories *(continued)*

Project	Entity	Examples of indicators	Allocation amount (COP billion)
Ecosystem services and biodiversity			**316.08**
Institutional strengthening of national natural parks	National Natural Parks of Colombia	Hectares reforested Hectares of forests with forest management plan Hectares of ecosystems conserved or undergoing restoration Hectares declared as protected areas Number of research and planning documents Number of buildings for administration, surveillance, and control of protected areas	36.48
Scientific investigation of marine and coastal areas	Ministry of Environment and Sustainable Development		17.72
Scientific research on biodiversity and ecosystem services	Ministry of Environment and Sustainable Development		24.61
Consolidation of Colombian environmental information system	Ministry of Environment and Sustainable Development		10.38
Strengthening of institutional management of National Environmental Licensing Authority	National Environmental Licensing Authority		1.59
Research, conservation, and use of biological diversity of Colombian Amazon	Ministry of Environment and Sustainable Development		18.07
Strengthening of evaluation and monitoring processes of environmental licenses, permits, and procedures	National Environmental Licensing Authority		27.97
Administration of National Natural Parks of Colombia and coordination of National System of Protected Areas	National Natural Parks of Colombia		115.56
Conservation of biodiversity and ecosystem services at national level	Ministry of Environment and Sustainable Development		42.82
Strengthening climate change management in national, sectoral, and territorial planning	Ministry of Environment and Sustainable Development		6.90
Research on environmental, socio-productive, and cultural environment of Choco, Nariño, Valle del Cauca, Risaralda, Córdoba	Ministry of Environment and Sustainable Development		13.98

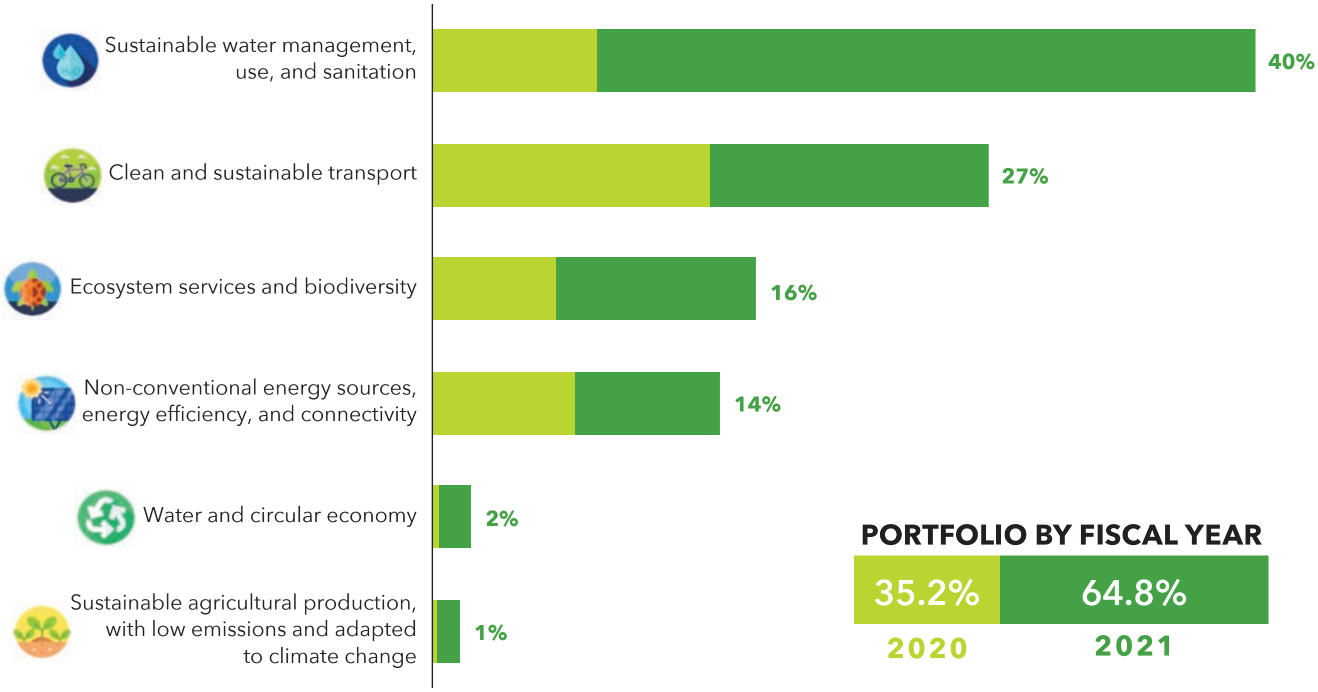
(continues on next page)

TABLE 2. Distribution of Funds Across 27 Projects in Six Categories *(continued)*

<table>
<tr><th>Project</th><th>Entity</th><th>Examples of indicators</th><th>Allocation amount (COP billion)</th></tr>
<tr><td colspan="3">Nonconventional energy sources, energy efficiency, and connectivity</td><td>282.31</td></tr>
<tr><td>Design and structuring of technological solutions for generation of electricity in non-interconnected zones</td><td>Institute for Planning and Promotion of Energy Solutions for Non-Interconnected Zones</td><td rowspan="3">Number of photovoltaic power generation units installed, maintained, or upgraded
Number of generation plants expanded, built, or upgraded
Reduced or avoided carbon dioxide emissions
Energy consumption
Number of technical assistance services for structuring energy projects
Number of installed non-hydro generation units or sources</td><td>25.31</td></tr>
<tr><td>Development and implementation of sustainable energy projects in non-interconnected zones</td><td>Institute for Planning and Promotion of Energy Solutions for Non-Interconnected Zones</td><td>37.39</td></tr>
<tr><td>Supply of electric power service in non-interconnected zones</td><td>Ministry of Energy and Mining</td><td>219.61</td></tr>
<tr><td colspan="3">Waste and circular economy</td><td>38.50</td></tr>
<tr><td>Expansion and improvement of comprehensive solid waste management</td><td>Ministry of Housing</td><td>Tons of waste used, reused, or recycled
Number of companies that contributed to circular economy and sustainability-related topics</td><td>38.50</td></tr>
<tr><td colspan="3">Sustainable agricultural production with low emissions and adapted to climate change</td><td>27.37</td></tr>
<tr><td>Strengthening national productive forest chain</td><td>Ministry of Agriculture</td><td rowspan="3">Difference in greenhouse gas emissions from baseline scenario
Hectares reforested
Hectares under sustainable agroforestry systems
Hectares of commercial forests or established protective plantations
Technical support service for efficient use of natural resources in strategic ecosystems</td><td>14.47</td></tr>
<tr><td>Development of climate-smart initiatives for climate change adaptation and sustainability in prioritized agricultural production systems (rice, corn, banana, sugarcane, potato, cattle farming)</td><td>Ministry of Agriculture</td><td>11.90</td></tr>
<tr><td>Increase in sustainability of agricultural production to address climate change</td><td>Ministry of Agriculture</td><td>1.00</td></tr>
<tr><td colspan="3">TOTAL</td><td>2 trillion</td></tr>
</table>

The proceeds from the issuance of bonds will be allocated according to the commitment made in the framework.

FIGURE 3. Categories of Eligible Green Expenditures



Any projects, assets, or expenditures related to the following activities are excluded from eligible green expenditures:

- Exploration, production, and distribution of fossil fuels; burning of fossil fuels as the only source of power generation; nuclear power generation
- Production or trade in any product or activity considered illegal under national or international laws, regulations, conventions, or agreements to which Colombia is a party
- Deforestation or forest degradation
- Alcohol, weapons, tobacco, or gambling industries

PROCESS FOR PROJECT EVALUATION AND SELECTION (GOVERNANCE)

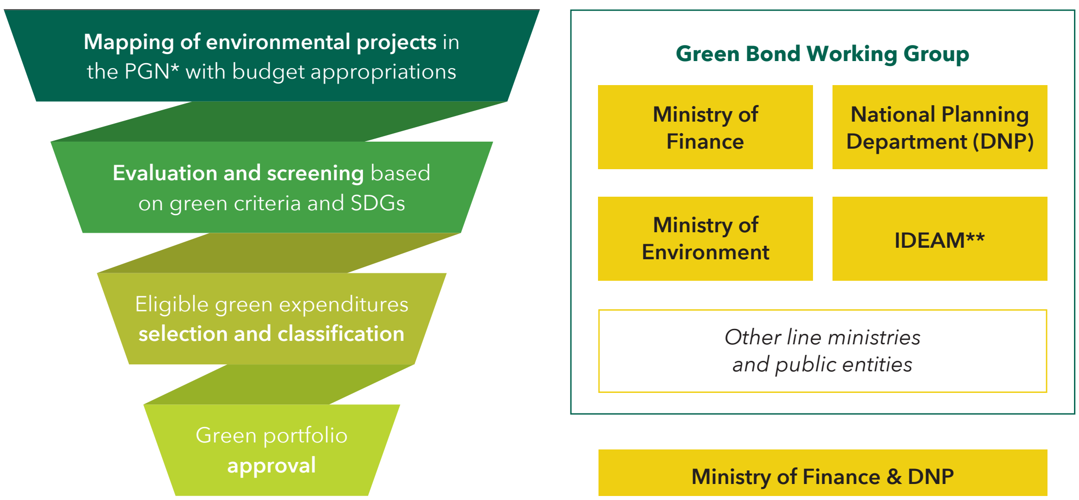
The MHCP and DNP lead evaluation and selection of eligible green expenditures, supported by the Ministry of Environment and the IDEAM, in the Sovereign Green Bond Working Group.

Ministries and other government entities present projects to the Green Bond Working Group (Figure 4), which assesses their alignment with eligible green expenditure criteria, if they are included in the national budget that Congress has approved. The working group reviews the supporting documentation to verify eligibility of expenditures that each entity presents. Independent entities may also advise the working group.

To identify eligible green expenditures, the working group, led by the DNP and the MHCP in line with their legal functions, evaluates the national budget projects and, in collaboration with the entity or ministry involved, analyzes the characteristics of each project or expenditure and the amounts allocated and disbursed each year to ensure compliance with the provisions specified for eligible green expenditures. Colombia is using its own legal framework, laws, and standards as the first filter for selection of eligible expenditures, followed by the Green Bond Principles and SDGs 6, 7, 9, 11, 12, 13, 14, and 15. The working group verifies that the eligible projects or expenditures have performance indicators or potential indicators of impact, as applicable. The Ministry of Environment helps classify eligible green projects in each of the previously defined categories (Table 2). Going forward, Colombia will use its national green taxonomy to issue green bonds (Superintendencia Financiera de Colombia n.d.).

Figure 4 shows the structure used to evaluate and select eligible green expenditures included in the green portfolio.

FIGURE 4. Process for Project Evaluation and Selection



* PGN is Spanish acronym for National Budget

** Institute of Hydrology, Meteorology and Environmental Studies of Colombia

MANAGEMENT OF PROCEEDS

The net proceeds of green bonds will be used to finance the general budget, governed by the Organic Budget Presidential Decree.[17]

The MHCP verifies that the amounts allocated to eligible green expenditures are equivalent to the net proceeds, based on information that the DNP, ministries, or public entities provide, within 1 year after issuance of the bond. It also verifies that no other sources are financing the same expenditure. The General Directorate of Public Credit and National Treasury manages any outstanding resources (those that have not been allocated to eligible green expenditures) according to treasury policy.

The eligible green expenditures in the green portfolio are expected to be higher than the net proceeds of the green bond, so if any expenditure is ineligible or its amount is reduced at any point, another may replace it.

17 Decree No. 111 of 1996, II. Article 14. Annuity. The fiscal year begins on January 1 and ends on December 31 of each year. After December 31, no commitments can be made against appropriations for the fiscal year ending on that date, and appropriation balances not affected by commitments will expire without exception (L. 38/89, art. 10).

3.4 External Review

Vigeo Eiris (2021) issued a second-party opinion that Colombia's Sovereign Green Bond Framework is coherent with the issuer's sustainable strategic priorities and supports its climate-change commitments and goals. It is also aligned with the four core components of the ICMA Green Bond Principles. Vigeo concluded that the project portfolio is robust on environmental impact and management of ESG risks.

3.5 Transaction Execution Process

ROADSHOW PROCESS

The communication strategy, which the MHCP's Investor Relations Office supports, focused on provision of information by the Colombian government about the Green Bond Framework, eligible green expenditures, project characteristics and green credentials, governance and institutional arrangements, external audit, and the placement process.

The effectiveness of the investor relations strategy was built upon a two-way dialogue between government and market participants. Through different channels (before and after issuance), such as roadshows and bilateral meetings with local and global stakeholders, the Colombian government ensured credibility and transparency with investors. Moreover, the MHCP optimized digital platforms Twitter and YouTube, as well as the MHCP and Investor Relations Colombia websites, publishing key information about the green bond framework and issuance in Spanish and English, to reach a wide audience. COVID-19 did not visibly affect the roadshow process.

EXECUTORS AND ADVISORS

The Deputy Directorate of External Debt within the Directorate of Public Credit and National Treasury of the MHCP led the process of developing the Green Bond Framework and subsequent issuance. The Deputy Directorate of Internal Debt oversaw the green bond placement. The Technical Deputy Ministry, General Directorate of the National Public Budget, Legal Affairs Group, Deputy Directorate of Operations, and Deputy Directorate of the Nation's Treasury provided technical support.

The Credit Directorate within DNP collaborated with its subdirectorates in charge of the different projects on budgetary and administrative matters by managing meeting agendas. The Environmental Directorate provided technical assistance and feedback on selection of projects and identification of indicators.

The Ministry of Environment and Sustainable Development and IDEAM provided environmental support in assessing the green credentials of projects and the feasibility of impact and performance indicators.

The World Bank and the Inter-American Development Bank provided technical assistance to the government.

AUCTION PROCESS

The auctions are run through placement agents that are part of the Primary Dealers Program[18]. The MHCP establishes the rules to define the auction cut-off rate, and depending on the amount of debt to be issued, bids whose rate is less than or equal to the cut-off rate are allocated.

The MHCP may allocate an additional amount of 30 percent or 50 percent in the first round of each auction if the ratio between the amount offered and the amount called is greater than 2 or 2.5 times, respectively.

The auctions have a noncompetitive option in which an additional amount is allocated and distributed in accordance with the regulations among the placement agents allocated in the first round of the auction. The noncompetitive option can be exercised 9 days after the initial auction for the amount offered in the noncompetitive option at the average rate on the day of the initial auction.

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18 The Primary dealers Program was created as a tool for giving depth to domestic public debt markets, with the aim of guaranteeing primary placement of TES issues and bringing liquidity to the market. The program participants are establishments such as banks, financial corporations and brokerage firms, monitored by the Financial Superintendence of Colombia. These institutions must comply with a series of prerequisites that guarantee financial strength, for them to be designated as Primary dealers or Aspiring Primary dealers by the General Directorate of Public Credit and National Treasury (DGCPTN). These establishments are in charge of buying, intermediating and promoting the Nation's debt, enhancing adequate financing conditions for the Nation in capital markets developing public debt securities. https://www.irc.gov.co/webcenter/ShowProperty?nodeId=%2FConexionContent%2FWCC_CLUSTER-012616%2F%2FidcPrimaryFile&revision=latestreleased

3.6 Issuance Details

Colombia issued twin green bonds for COP 1.49 trillion in the local market using the Dutch auction mechanism with the aim of developing a green capital market, increasing market liquidity, and diversifying the investor base. With these issues, Colombia became the second country in the region, after Chile, to issue sovereign green bonds and the first to do so in the domestic market. Likewise, as an emerging country, Colombia was a pioneer in adopting the concept of twin green bonds, following Germany.

ISSUANCE OF TWIN BONDS

Colombia used the twin bond concept that Germany introduced in August 2020 for its own green bond program. The aim of issuing twin bonds with the same tenor, coupon, covenant, and legal backing was to address concerns related to the green bond's pricing and liquidity (Box 1).

Issuance of twin bonds also creates a natural diversification between conventional and green bond investors, giving them more options to greenify their fixed-income portfolio at several different points along the yield curve. This initiative reflects the government's commitment to building a green yield curve as a reference point in the local market next to its conventional yield curve.

ISSUANCE AMOUNT

The first auction of the green treasury bonds 2031 was held on September 29, 2021, in which, COP 750 billion worth of green treasury bonds, denominated in pesos and maturing in 2031, was auctioned.

The bond received offers of purchase for USD 2.3 billion from investors, 4.6 times the amount initially called. The solid demand allowed the issuer to activate over-allotment clauses (in line with the provisions of Resolution No. 951 of March 31, 2020, of the MHCP) and increase the initial auction size of COP 500 billion by 50 percent (COP 250 billion), raising a total of COP 750 billion.

BOX 1.
The German Twin Bond Concept

Germany introduced the new concept of green twin bonds in 2020, under which the green bond is issued with the same financial characteristics as one of the government's existing conventional on-the-run issues, with the green bond having the same maturity, coupon rate and coupon payment dates as the conventional issuance.

Because investors have an opportunity at any time to switch the green twin bond to the corresponding more-liquid conventional twin bond one to one, there is a greater liquidity appeal in the green bond, ensuring that the cost effectiveness of the government bond issuances is preserved, although investors will not be allowed to switch the conventional twin bond to the corresponding green twin bond.

Source: Danmarks Nationalbank 2021.

The cut-off rate of the green treasury bond auction was 7.556 percent, which is a difference of 7 basis points from the conventional treasury bond transaction due 2031 (7.630 percent), technically known as a greenium.[19]

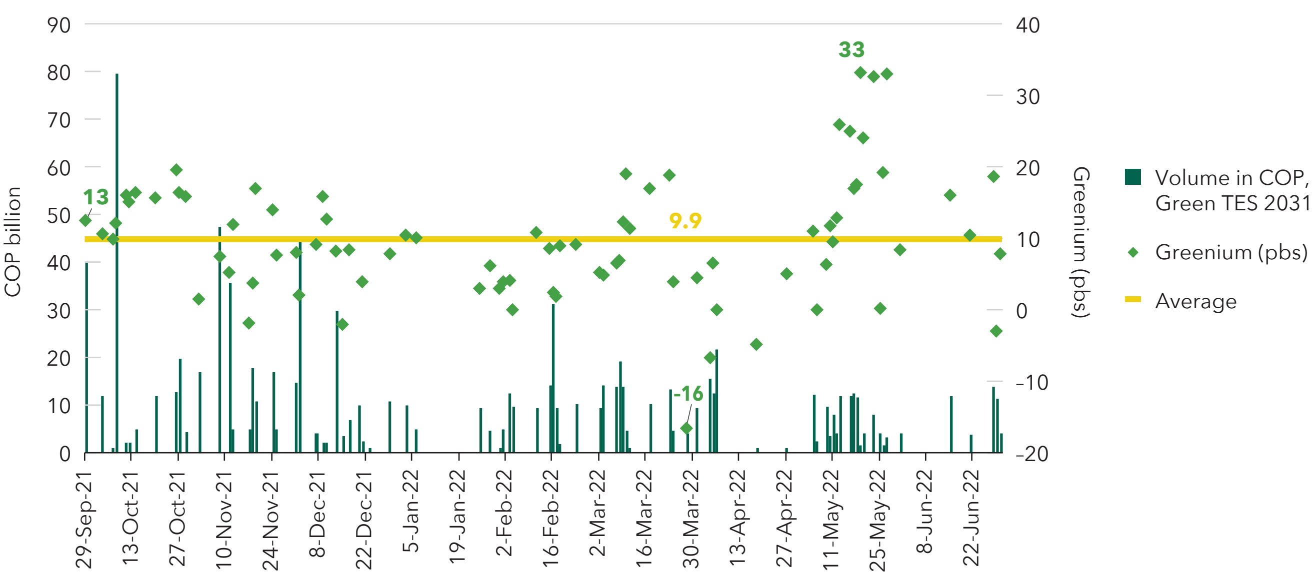
The second auction of green treasury bonds 2031 was held on October 28, 2021, for COP 650 billion, reaching a total issued amount of COP 1.49 trillion. Demand from local and foreign investors was COP 948 billion—1.5 times the amount initially offered.

The cut-off rate of this green treasury bond auction was 7.877 percent—a greenium of 15 basis points from the 8.025 percent rate of the conventional treasury bonds 2031 in the secondary market.

The green treasury bonds 2031 and the conventional treasury bonds 2031 are listed on the Electronic Trading System and Electronic Trading Market. Figure 5 illustrates the greenium.

The auction results demonstrated the healthy appetite of local market investor pools, consisting of banks, foreign investors, institutional investors (administrated pension funds, fiduciary investment portfolios, insurance company investment portfolios), and other government portfolios (mainly public pension funds) for Colombian public green securities. About 40 percent of Colombia's debut green sale went to overseas funds, much higher than the overall international ownership rate of 26 percent, thereby expanding and diversifying its investor base as planned. With the second auction, foreign holders accumulated 48.7 percent of total green bonds issued.

FIGURE 5. Greenium of Green Treasury Bonds 2031 in Secondary Market as of June 2022



Source: Deputy Directorate of Domestic Debt; Deputy Directorate of Internal Financing calculations with data from the Electronic Trading System.

[19] It is difficult to attribute such spread to only one factor, which in this case is the green commitment, but given the twin bond structure, the existence of a greenium could be justified.

3.7 Post-Issuance Reporting

For all bonds issued under this framework, Colombia will provide investors with allocation and impact reports. The MHCP will publish both reports on the MHCP website and Investor Relations page within 1 year of issuance and then annually thereafter until the allocated amount of eligible green expenditures is equivalent to the net proceeds of the issuance.

The reports will be prepared based on information that the DNP provides, in accordance with its functions and the database it manages. This database will include information that each entity executing eligible green expenditures provides relative to execution of the investment projects and programs. (See Table 2 for the list of executing entities.) Additional information may be requested from executing entities for reporting of impact indicators, and those entities shall be solely responsible for consolidating the information reported to the DNP and verifying its veracity and accuracy. Preparation of post-issuance reports started in January 2022, and the World Bank has been providing technical assistance to build the government's capacity on impact reporting.

ALLOCATION REPORTING

The MHCP, in coordination with the DNP, will publish an annual report on the use of proceeds that will contain:

- Description of eligible green expenditures and total amount allocated, according to information that each entity executing eligible green expenditures provides
- Alignment of eligible green expenditures with environmental goals and the SDGs
- Aggregate amount and percentage of resources allocated with and executed in each green category
- Amount and percentage of resources allocated with recent expenditures and current-year expenditures
- Balance of unallocated proceeds, including implementation information that each entity implementing eligible green expenditures provides; co-financing percentage according to eligible green expenditure or project, as applicable.

An external independent auditor will verify the allocation report.

PERFORMANCE AND IMPACT REPORTING

The MHCP, with input from the DNP and technical support from IDEAM, will publish an impact report for all or some of the green projects based on information that each entity implementing the eligible green expenditures provides. The DNP will coordinate with the other line ministries and public entities involved to integrate the expected environmental impact of the green projects into the report, which is expected to include the expected impact of eligible green expenditures; qualitative performance indicators and, where feasible, quantitative performance measures of the project's impact; and the methodology and underlying assumptions used in the quantitative performance indicators.

The first impact report will be published within 1 year of the first green bond issuance and then annually until the proceeds have been fully allocated. The allocated amounts will be broken down according to each green category defined in accordance with the World Bank (2018) Green Bond Proceeds Management and Reporting Guide and published whenever information is available. This report may be published in the same document as the allocation report.

Table 2 shows some examples of indicators that may be included. The list is not exhaustive.

3.8 Key Lessons Learned

Considering Colombia's socioeconomic characteristics and needs, the government's decision to issue green bonds and create a diversified portfolio that transversally encompasses different environmental objectives and highlights projects that would have gone unnoticed otherwise is commendable. The issuance secured Environmental Finance's (2022) sovereign green bond of the year award 2022.

The MHCP recognizes that the green bond issuance process can keep improving because it was the first one. It is important to reflect on lessons learned from this process so that they will inform future issuances. Some of these lessons through the issuance of the green bond are discussed below.

Benefits of debt management. The green bond was a good fit for Colombia's Debt Management Strategy (2018–22), which aims to broaden and diversify the investor base, reduce foreign exchange risk (by pursuing a larger share of domestic currency financing), and develop the domestic debt and capital markets. Nearly half of the Colombia's debut green sale went to overseas funds, much higher than the overall international ownership rate for conventional bonds, demonstrating successful expansion and diversification of its investor base in line with the debt management strategy. Similarly, the issuance in local currency has helped develop a green bond domestic market in Colombia by attracting local market investor pools while reducing foreign exchange risk otherwise associated with issuances in foreign currencies. Interest cost savings have helped lower the cost of debt as well.

Definition of "green." The absence of a national taxonomy and the drawbacks of adopting an international one that is not aligned with the Colombian context (low contribution to greenhouse gas emissions, importance of biodiversity) made it challenging to define the criteria for eligible green expenditures. This also presented an advantage, in the sense that the categories and types of projects selected were tailor made for the country and oriented to contributing to its updated NDC. Despite the difficulties, the result was a diversified project portfolio that transversally encompasses Colombia's environmental priorities while highlighting sectors and projects that would have gone unnoticed. Once the Colombian taxonomy is available, it will be necessary to incorporate defined green activities into the framework.

Project portfolio size. The first filter for a project to be eligible is that it has a budget allocation. Several of the environmental projects that executing entities proposed did not have a budget allocation or were in an early stage of the project (prefeasibility). Although Colombia was able to identify a sizeable green expenditures portfolio, this suggests that there is significant opportunity to include priority environmental projects in the budget. In the future, as governments mainstream the sustainability framework into their operations and if investor appetite for green bonds continues, it is likely that more government expenditures will be tailor made for such financing. This could create massive opportunity for more innovative green projects aligned with Colombia's NDC.

Sovereign Green Bond Working Group. Article 4 of Law No. 2073 of 2020 delegates responsibility for developing frameworks for issuance of sovereign thematic bonds to foster sustainable development to the MHCP. Unlike conventional bonds, with green bonds, it is necessary to work with other departments and line ministries in charge of executing budgets to identify eligible expenditures and allocate bond proceeds. Coordinating with various line ministries responsible for executing the budget is typically challenging for sovereign issuers, and it was no different for Colombia. It was not possible to constitute a formal working group through an administrative act because of legal and logistical complexities, but some responsibilities of the main actors of the working group were incorporated by Article 89 of Law No. 2159 of November 2021 and Article 61 of Decree No. 1893 of December 2021. Support of the Budget Directorate and the Treasury was critical in defining the criteria and guidelines for management of resources from the issuance of the green bond.

Because the first portfolio of projects includes only investment budget, participation of the DNP in the process was critical. Although the Directorate of Environment and Sustainable Development of the DNP participated in the selection process of projects and indicators, the Credit Deputy Directorate of the DNP compiled the codes of the projects in the investment budget system and the budgetary information, which was critical in the interaction with its technical directorates in charge of monitoring the various projects. Coordination with a public entity with a small but highly trained staff base was particularly valuable in generating technical knowledge about environmental criteria, although it will be important to formalize the commitments of the working group and the methodology for evaluation and selection of green projects.

A reflection on the second party opinion. In countries like Colombia, social issues such as income inequality, lack of healthcare facilities, and poverty are as pressing as, if not more than environmental issues. Since public finances are limited, it is challenging for the government to issue green bonds whose proceeds can go only to limited environmental projects that do not directly address equally important social issues. The second party opinion providers such as Vigeo Eiris ensure that the projects identified for green bond allocation are indeed green as per their internal methodology and international standards. Although such external scrutiny and verification is important to ensure greenness of the identified projects, it also limits the government's ability to be more flexible in terms of including projects that address social issues in additional to environmental.

4

FUTURE OPPORTUNITIES

4.1 Expanding Beyond Green Bonds

Most ESG bond instruments globally, including in Latin America, are green, social, and sustainability bonds, with sustainability-linked bonds becoming increasingly popular in the region, constituting almost 80 percent of bonds issued in 2021 by some estimates (BBVA 2021), although sustainability-linked bond development has been limited to countries such as Brazil and Mexico. In Colombia, the first sustainability-linked bond, which IDB Invest structured and wrote, was issued in late 2021. Colombian issuers could work toward promotion of sustainability-linked bonds to attract capital for sustainability-linked projects, providing greater flexibility to investors to invest in inclusive social and environmental development projects.

4.2 Enhancing Engagement with Investors on ESG

Issuance of green, social, and sustainability bonds is often the first step that debt management offices can take to increase transparency and better communicate to investors the risks and opportunities that national development plans and goals present. Investors are increasingly seeking this information to assess the value of their investments and, beyond that, trying to understand what products they can support that make a positive difference. Issuance of the sovereign green bond was an important step for Colombia in this regard. MHCP should build on this first step and proactively and systematically communicate ESG information to address investor expectations for more disclosure. Proactive engagement and better communication with investors can create a competitive advantage (World Bank 2020b). The World Bank toolkit for sovereign debt managers lists actions sovereign debt managers should take to ensure that they meet investor expectations for information on ESG (Figure 6).

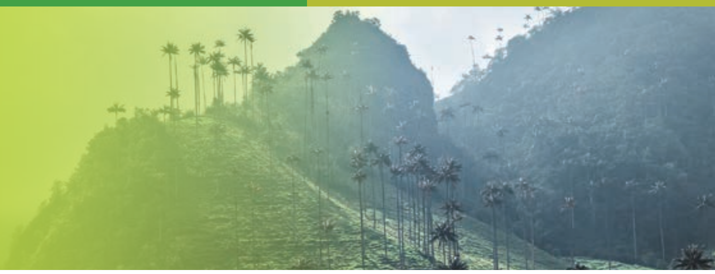
FIGURE 6. Toolkit for Debt Management Offices for Communicating on Environmental, Social and Governance (ESG) Topics with Investors

PHASE I	PHASE II	PHASE III	PHASE IV
Take stock of ESG practices and demand for information	Discuss the implications for the funding program and debt strategy	Decide what ESG information to present (and how)	Actively incorporate ESG in outreach material

Source: World Bank

5

CONCLUSION



Sustainability labeled bonds and bond and equity indices have continued to grow globally. The combined labeled issuance of green, social, sustainability, and sustainability-linked bonds totaled nearly USD 1.08 trillion globally by the end of November 2021, which is nearly 100 percent year-on-year growth over the equivalent period in 2020 (Bloomberg Terminal 2021). In late 2021, Colombia became the first Latin American country to issue a sovereign green bond in local currency, which was oversubscribed, illustrating growing appetite for the green transition–focused investment class. Issuance in local currency supports domestic capital markets and shields borrowers from currency risk in times of economic shocks.

The successful debut of sovereign green bond issuance generated several important lessons that could be applicable to other emerging countries issuing their first sovereign green bonds.

Any such transaction must be managed in the context of fiscal responsibility. Countries must be careful not to exacerbate debt burdens, so issuance of a green bond should be considered within the fiscal parameters of a sustainable fiscal envelope. In Colombia, sovereign green bonds were included in the financing plan of 2021, within the fiscal parameters and budget.

Adhering to a sound public debt management strategy is critical. It is necessary to build institutional capacity to manage public debt and ensure that the transaction is structured in line with the medium-term debt management strategy in terms of currency, maturity, and interest-rate composition so as not to increase debt servicing costs or financial risk, including refinancing risk. The entity with direct responsibility for borrowing on behalf of the central government should carefully consider the advantages and disadvantages of issuing such bonds, set objectives, and implement the strategy in line with the medium-term debt management strategy.

Investment priorities should be aligned with the country's development goals. The underlying investments should support the economic, environmental, and social objectives of the country, which are part of the national development or sector strategy or are in support of the global SDGs. Investments tied to these higher-level objectives can be more attractive because of their potential contribution to the improvement of public welfare.

Investors expect the highest levels of accountability and transparency in labeled green bond transactions. Structuring of the transaction requires steps that debt management functions or offices may not be familiar with, such as developing the bond framework, analyzing the portfolio to ascertain the potential size of eligible expenditures, defining governance processes for evaluating eligible projects and management of proceeds, and preparing post-issuance allocation and impact reports. Implications for the debt management function or office are considerable. It is important to coordinate with line ministries; secure their commitment from the outset; enlist assistance to identify eligible expenditures; and ensure accurate, complete, timely reporting of environmental impact.

Where possible, it is advisable to adapt to an applicable green finance taxonomy to identify eligible green projects. The Colombian government's decision not to follow an international taxonomy on its first green bond issuances in 2021 was based on the reasoning that classifying projects into categories or thresholds designed for countries with different geographic, macroeconomic, and social characteristics would substantially limit the portfolio and the variety of projects, although there is a risk of selecting projects that do not adhere to generally accepted international definitions of green projects. To the extent applicable, it is therefore recommended that some widely accepted green taxonomies be followed while allowing some flexibility to adapt to local contexts and priorities. On April 11, 2022, the Colombian government published its Green Taxonomy (Superintendencia Financiera de Colombia n.d.), which has followed international definitions of green projects as well as incorporated country specific characteristics, and hence can be used extensively to identify projects for future green bond issuances.

REFERENCES

BBVA. 2021. "Sustainability-Linked Bonds: Great News for Sustainable Financing in Latin America. https://www.bbva.com/en/sustainability/sustainability-linked-bonds-great-news-for-sustainable-financing-in-latin-america/.

BizLatinHub. 2021. "5 Reasons to Invest in the Colombian Coffee Business." https://www.bizlatinhub.com/invest-colombian-coffee/.

Bloomberg Terminal. 2021.

Bundesrepublik Deutschland Finanzagentur GmbH. 2020. "First Green Federal bond successfully placed." Frankfurt. Retrieved June 13, 2022, from https://www.deutsche-finanzagentur.de/fileadmin/user_upload/pressemeldungen/en/2020/2020-09-02_pm09_First_Green_Federal_bond.pdf.

CBI (Climate Bonds Initiative). 2022. "Climate Bonds Standard V3.0." https://www.climatebonds.net/climate-bonds-standard-v3.

Climate Transparency. 2020. "Colombia Climate Transparency Report." https://www.climate-transparency.org/wp-content/uploads/2021/01/Colombia-CT-2020.pdf.

DANE (Departamento Administrativo Nacional de Estadística). 2015. "Encuesta Anual Manufacturera." DANE, Bogotá, Colombia.

Danmarks Nationalbank. 2021. https://www.nationalbanken.dk/en/pressroom/Pages/2021/12/DNN202122236.aspx

DNP (Departamento Nacional de Planeación). 2015. "Costos en Salud Asociados a la Degradación Ambiental en Colombia." DNP, Bogotá, Colombia.

——— 2019. "Bases del Plan Nacional del Desarrollo 2018-2022." DNP, Bogotá, Colombia.

Environmental Finance. 2021. "Trends in sustainable bonds issuance and a look ahead to 2021." February 22. Retrieved from Environmental Finance: https://www.environmental-finance.com/content/the-green-bond-hub/trends-in-sustainable-bonds-issuance-and-a-look-ahead-to-2021.html.

——— 2022. "Environmental Finance's Bond Awards 2022." https://www.environmental-finance.com/content/awards/environmental-finances-bond-awards-2022/winners/green-bond-of-the-year-sovereign-republic-of-colombia.html.

Environmental Information System of Colombia. 2022. Sistema de Información Ambiental Colombiana (SIAC), superficie boscosa natural. http://181.225.72.78/Portal-SIAC-web/faces/Dashboard/Biodiversidad2/bosques/bosquesNatural.xhtml#.

General Directorate of Public Credit and National Treasury and Ministry of Finance and Public Credit. 2018. "Medium-Term Debt Strategy 2018-2022." https://www.minhacienda.gov.co/webcenter/ShowProperty?nodeId=/ConexionContent/WCC_CLUSTER-111569.

Global Impact Investing Network. 2020a. "2020 Annual Impact Investor Survey."

——— 2020b. "2020 Annual Impact Investor Survey."

——— n.d. "What is impact investing." Retrieved from https://thegiin.org/impact-investing/need-to-know/#what-is-impact-investing.

Golub, Elena, Irina Klytchnikova, Gerardo Sanchez-Martinez, and Juan Carlos Belausteguigoitia. 2014. "Environmental Health Costs in Colombia. The Changes from 2002 to 2010." World Bank, Washington, DC.

IADB (Inter-American Development Bank). 2020. "Factsheet: Resilience Solutions for the Coffee Sector in Colombia." https://publications.iadb.org/publications/english/document/Factsheet-Resilience-Solutions-for-the-Coffee-Sector-in-Colombia.pdf.

ICMA (International Capital Markets Association). 2020. "Sustainable Finance - High Level Definitions." Zurich.

——— 2021a. "The Green Bond Principles." https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/.

——— 2021b. "The Social Bond Principles." https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/.

——— 2021c. "The Sustainability Bond Guidelines." https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-bond-guidelines-sbg/.

——— 2021d. "The Sustainability-Linked Bond Principles." https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/.

IDB Invest. 2021. IDB Invest, Cia Empaques Announce First Sustainability-Linked Bond in Colombia. https://www.idbinvest.org/en/news-media/idb-invest-cia-empaques-announce-first-sustainability-linked-bond-colombia

IDEAM, Fundación Natura, PNUD, MADS, DNP, CANCILLERÍA. 2021. "Tercer Informe Bienal de Actualización de Colombia a la Convención Marco de las Naciones Unidas para el Cambio Climático (CMNUCC)." IDEAM, Fundación Natura, PNUD, MADS, DNP, CANCILLERÍA, FMAM. Bogotá D.C., Colombia.https://unfccc.int/sites/default/files/resource/BUR3%20-%20COLOMBIA.pdf.

IMF (International Monetary Fund). 2014. "Revised Guidelines for Public Debt Management." https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Revised-Guidelines-for-Public-Debt-Management-PP4855.

MADS (Ministerio de Ambiente y Desarrollo Sostenible) and IDEAM (Institute of Hydrology, Meteorology and Environmental Studies). 2018. "Estrategia Integral de Control de la Deforestación y Gestión de los Bosques." MADS and IDEAM, Bogotá, Colombia.

——— 2021. "Decree 1630/2021 on Nov. 30, 2021." https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%201630%20DEL%2030%20DE%20NOVIEMBRE%20DE%202021.pdf

Minhacienda. n.d. "El cierre fiscal preliminar de 2021 y el Plan Financiero de 2022 traen excelentes noticias en materia de crecimiento económico y sostenibilidad fiscal." https://www.minhacienda.gov.co/webcenter/ShowProperty?nodeId=/ConexionContent/WCC_CLUSTER-185368//idcPrimaryFile&revision=latestreleased.

MHCP (Ministry of Finance and Public Credit). 2013. "Estrategia de Gestión de Deuda de Mediano Plazo de la Nación." https://www.irc.gov.co/webcenter/ShowProperty?nodeId=%2FConexionContent%2FWCC_CLUSTER-009869%2F%2FidcPrimaryFile&revision=latestreleased.

——— 2021. "Colombia Sovereign Green Bond Framework." https://www.irc.gov.co/webcenter/ShowProperty?nodeId=%2FConexionContent%2FWCC_CLUSTER-170719.

Ministry of Transport. 2014. "Plan de acción sectorial de mitigación (PAS) - Sector Transporte. Estrategia Colombiana de Desarrollo Bajo en Carbono." https://archivo.minambiente.gov.co/images/cambioclimatico/pdf/planes_sectoriales_de_mitigaci%C3%B3n/PAS_Tranporte_-_Final.pdf.

Republica De Colombia. 2021. "Documento CONPES 4060." Departmento Nacional De Planeacion, Bogota. Retrieved from https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%c3%b3micos/4060.pdf

S&P Global Ratings. 2022. "Global Sustainable Bond Issuance to Surpass $1.5 Trillion In 2022." https://www.spglobal.com/ratings/en/research/articles/220207-global-sustainable-bond-issuance-to-surpass-1-5-trillion-in-2022-12262243.

Superintendencia Financiera de Colombia. n.d. "La Taxonomía Verde de Colombia." http://www.taxonomiaverde.gov.co/webcenter/portal/TaxonomaVerde/Descarga-Documentos.

United Nations. n.d. United Nations Global Compact. Retrieved from Local Network Resources Archived Reports: https://www.unglobalcompact.org/engage-locally/manage/reports.

UN PRI. n.d. "About the PRI." Retrieved from PRI Principles for Responsible Investment: https://www.unpri.org/pri/about-the-pri.

Vigeo Eiris. 2021. "Second Party Opinion on the Sustainability of the Republic of Colombia's Sovereign Green Bonds Framework." https://www.irc.gov.co/webcenter/ShowProperty?nodeId=%2FConexionContent%2FWCC_CLUSTER-169898%2F%2FidcPrimaryFile&revision=latestreleased

WBG (World Bank Group). 2016. "Country Partnership Framework for the Republic of Colombia for the Period FY16-21." https://openknowledge.worldbank.org/bitstream/handle/10986/24133/Colombia000Cou0r0the0period0FY16021.pdf?sequence=1&isAllowed=y.

World Bank. 2018. "Green Bond Proceeds Management and Reporting". https://thedocs.worldbank.org/en/doc/768111536944473808-0340022018/original/WBGreenBondProceedsManagementandReportingGuide.pdf.

——— 2019. "Issuing International Bonds - A Guidance Note." Washington DC.

——— 2020a. "Developing a National Green Taxonomy - A World Bank Guide." Washington DC: World Bank.

——— 2020b. "Engaging with Investors on Environmental, Social and Governance (ESG) Issues—A World Bank Guide for Sovereign Debt Managers." https://thedocs.worldbank.org/en/doc/375981604591250621-0340022020/original/WorldBankESGGuide2020FINAL.11.5.2020.pdf.

——— 2021a. "Climate Change Budget Tagging: A Review of International Experience. EFI Insight Governance." Washington DC: World Bank.

——— 2021b. "Toolkits for Policymakers to Green the Financial System." Washington DC.

——— 2022. "Macroeconomic and Poverty Outlook, Spring 2022." https://www.worldbank.org/en/publication/macro-poverty-outlook/mpo_lac.

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