



INTEGRATED NDC X SDG INSIGHTS COLOMBIA

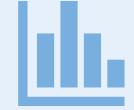
This initiative explores the NDC - SDG impact and leverages data, systems and finance analysis to pinpoint policy accelerators tailored to national context and sustainable development vision.



OBJECTIVES

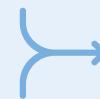
This initiative explores the NDC-SDG connections by leveraging data, systems and finance analysis to pinpoint policy accelerators tailored to national context and a sustainable development vision.

A ROBUST CASE FOR NDC 3.0



Backed by national data and AI-driven tools, to pinpoint where key investments through NDCs can drive progress across national development priorities.

ALIGN POLICY PATHWAYS



Build coherence and common ground to help decision-makers maximize positive outcomes across climate and development goals.

ACT WITH CONFIDENCE

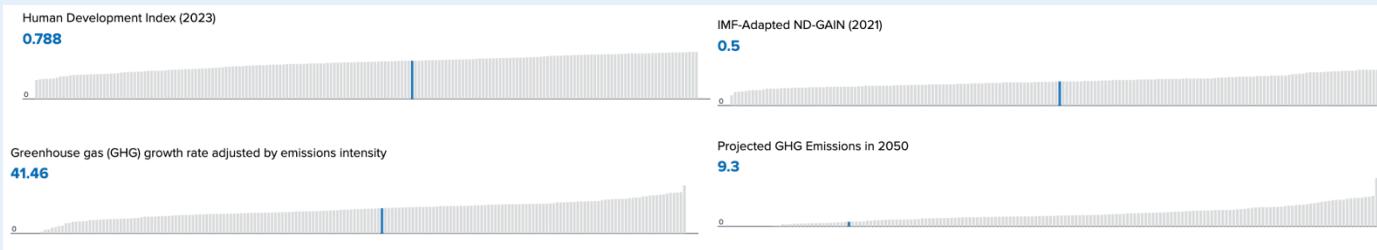


Tailored recommendations on integrated policy approaches, investment strategies, and finance opportunities to implement national strategies that align climate actions with development goals.

HOW TO READ THIS REPORT

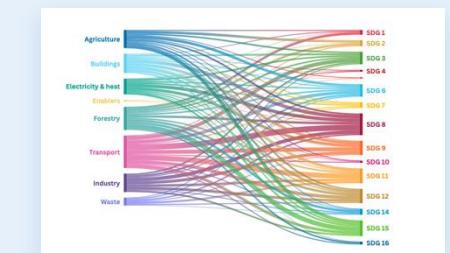
1

NDC x SDG Moment: human progress within planetary boundaries is the next development frontier. This section provides a snapshot of key climate and human development data.



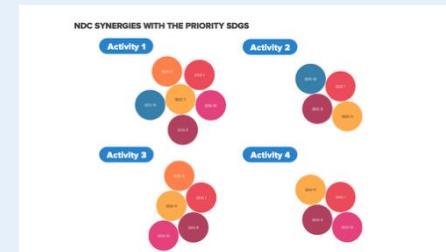
2

NDC x SDG Alignment: maps climate commitments and national development priorities using custom machine learning tool that draws from an SDG vocabulary of 100k terms.



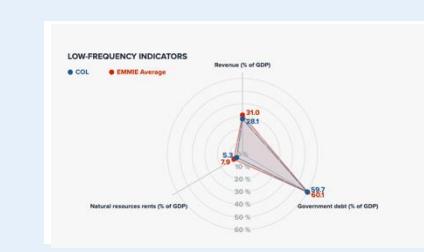
3

NDC x SDG Interlinkages: identifies national-level actions through enhanced NDCs that accelerate SDG achievement and advances a robust development case.



4

Finance & Stimulus: charts fiscal constraints and stimulus opportunities to ensure climate and development policy choices can be advanced with greatest impact.



NDC x SDG Moment

- 01 **NDC x SDG Moment**
- 02 NDC X SDG Alignment
- 03 NDC X SDG Interlinkages
- 04 Finance & Stimulus



CLIMATE & DEVELOPMENT MOMENT:

As part of their NDC Colombia has set a target of reducing emissions by

**169.4 MtCO2e
(51%)**

Human activities are causing significant climate change with severe environmental and socio-economic consequences. Integrating climate action for emissions reduction and enhanced resilience into development strategies can **advance human development and provide multiple co-benefits**.

All countries are navigating through a period of profound global uncertainty and shrinking development space that is affecting the landscape of global growth. The vulnerability of debt is at its highest level in decades in many developing economies, coinciding with a period when donors are making substantial cuts to aid flows. With these global challenges, it's important to leverage finance and resources nationally to drive development priorities.

Colombia is in the high human development category (83rd of 193 countries) and the country's IMF Adapted ND-GAIN index indicates vulnerability to climate disruptions and challenges to leveraging investments to adaptation actions.. With a score of 9.3/100 for projected emissions levels in 2050, Colombia is making progress towards achieving carbon neutrality. Colombia's projected Biodiversity Intactness Index indicates a low impact on biodiversity in 2050.

Colombia's National Development Plan 2022–2026 aims for inclusive growth by reducing social gaps, promoting regional equity, and advancing a green economy. It focuses on health, education, housing, rural development, innovation, and climate resilience, with citizen participation and environmental sustainability as key foundations. The plan commits to cutting emissions by 51% by 2030 through renewable energy, reducing deforestation, and improving infrastructure, linking climate goals with poverty reduction and biodiversity protection.

Human Development

Human Development Index (2023)

0.788



Climate Impact and Adaptation

INFORM Climate Change Risk Index

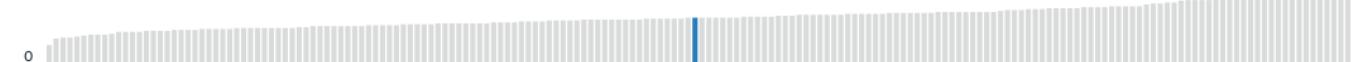
● Historical (2022) ● RCP 4.5 SSP 1 (2050) ● RCP 8.5 SSP 3 (2050)

5.4

5.5

IMF-Adapted ND-GAIN (2021)

0.5



Mitigation

Greenhouse gas (GHG) growth rate adjusted by emissions intensity

41.46



Projected GHG Emissions in 2050

9.3



Biodiversity

Biodiversity Intactness Index

● Historical (2014) ● RCP 2.6 SSP 1 (2050) ● RCP 7.0 SSP 3 (2050)

0.72

0.73

0.75

Sources European Commission 2023 (INFORM Climate Change Risk Index), IMF 2022 (IMF-Adapted ND-GAIN Index); Environmental Performance Index 2024 (GHG growth rate adjusted by emissions intensity & Projected Emissions in 2050); Helen Phillips; Adriana De Palma; Ricardo E Gonzalez; Sara Contu et al. 2021 (Biodiversity Intactness Index).

NDC x SDG Alignment

- 01 NDC X SDG Moment
- 02 **NDC X SDG Alignment**
- 03 NDC X SDG Interlinkages
- 04 Finance & Stimulus

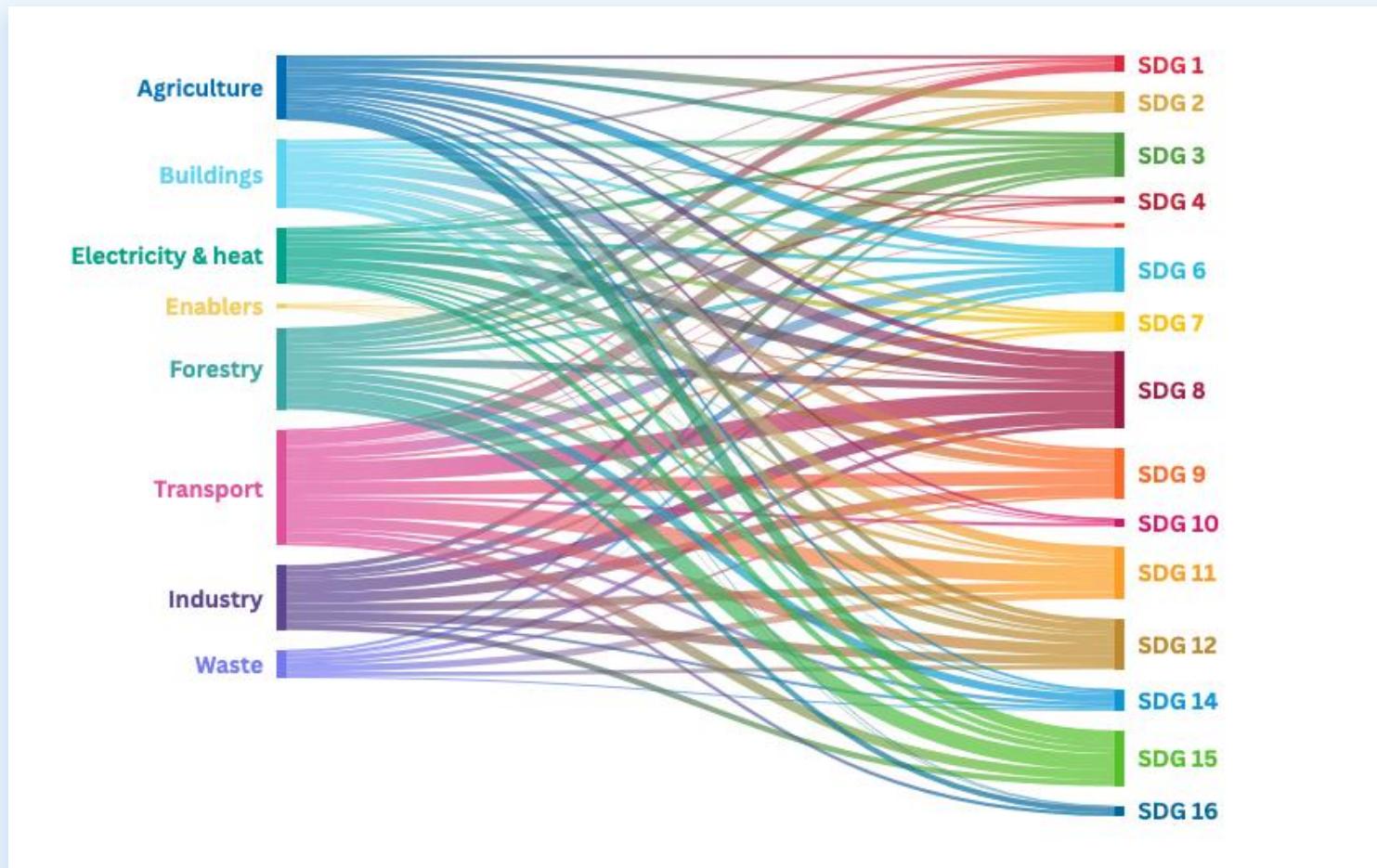


NDC X SDG ALIGNMENT

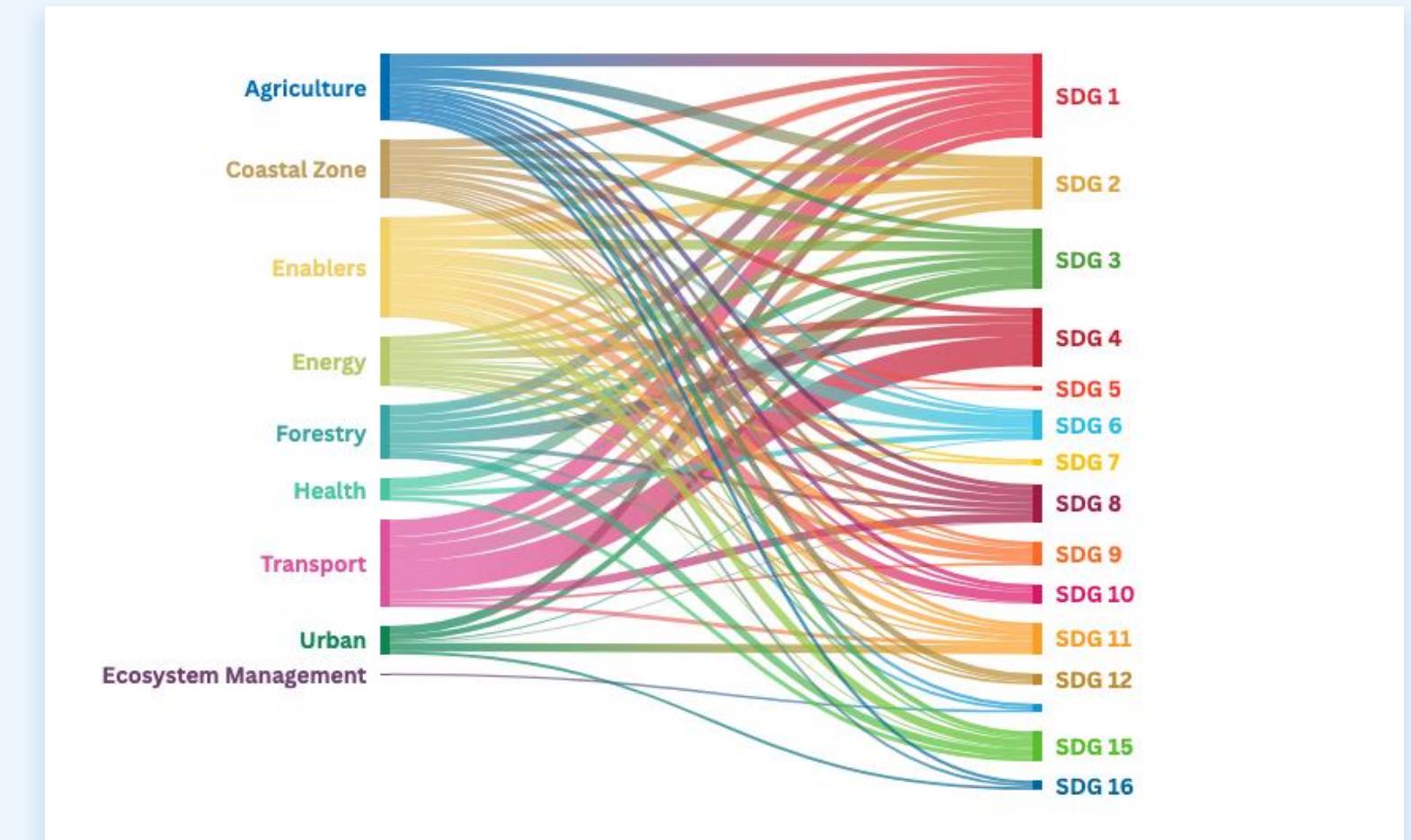
Target Level

These visuals are generated by analyzing NDC actions through a custom-built AI tool and categorized using the SCAN tool to surface relevant SDG synergies at the target level. This analysis provides a target level alignment of climate actions (mitigation and adaptation) with impact the SDGs for Colombia.

MITIGATION NDCs



ADAPTATION NDCs



For additional information on the NDC-SDG mapping, please visit: https://ambitiontoaction.net/scan_tool/

NDC X SDG ALIGNMENT

Action Level

This visual unpacks the NDC categories into the specific actions committed in Colombia . The size of the bubbles reflects the number of NDC actions identified under each category, to identify NDC x SDG accelerators with precision.

Colombia's NDC includes actions in these sectors:

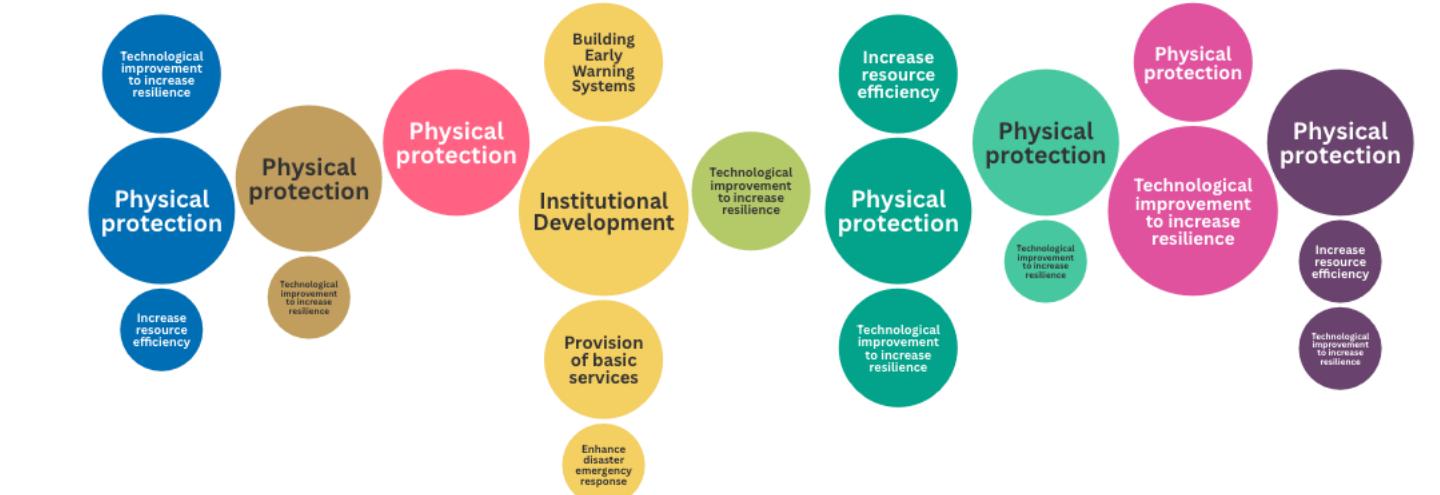
Mitigation

■ Agriculture ■ Buildings ■ Electricity & heat ■ Enablers ■ Forestry ■ Industries ■ Transport ■ Waste →



Adaptation

■ Agriculture ■ Coastal Zone ■ Ecosystem management ■ Enablers ■ Energy ■ Forestry ■ Health ■ Transport ■ Urban →



NDC x SDG INTERLINKAGES Overview

NDC-SDG interlinkages reveal how climate actions can impact SDG progress. Understanding these interactions can help Colombia achieve the 2030 Agenda while fulfilling its climate ambitions and navigating trade-offs.

Building from the NDC actions and SDG priorities, the following integrated SDG pathways are identified as critical to achieve Colombia's development outcomes:

- **SDG Target 1.2:** Reduce poverty by at least 50%
 - **SDG Target 11.1:** Safe and Affordable Housing
 - **SDG Target 11.5:** Reduce the adverse effects of natural disasters



ACCELERATION PATHWAYS



NDC X SDG Interlinkages

- 01 NDC X SDG Moment
- 02 NDC X SDG Alignment
- 03 NDC X SDG Interlinkages**
- 04 Finance & Stimulus



DEVELOPMENT BREAKTHROUGH

Objective

Embed climate and just transition objectives into Colombia's fiscal and territorial development framework to align climate ambition with macroeconomic stability, territorial equity, and long-term growth.

Overview

Colombia's main constraint is not climate ambition, but the persistent fragmentation between climate policy, fiscal frameworks, and territorial development planning. While the country has advanced climate budgeting tools and financing instruments, these remain largely programmatic and insufficiently integrated into medium-term fiscal and territorial strategies—particularly in fossil-dependent regions. This Development Breakthrough reframes the climate transition as a fiscal and development planning challenge, transforming transition risks into an opportunity to strengthen fiscal sustainability and development outcomes.

Proposed Breakthrough Actions

1. Integrate NDC and SDG objectives into medium-term fiscal and territorial planning, explicitly accounting for declining fossil revenues
2. Establish a fiscal–territorial framework for just transition in fossil-dependent regions, piloted in the La Guajira–Cesar energy corridor
3. Prioritize and territorialize climate investment to improve efficiency, resilience, and development impact
4. Integrate social protection, reskilling, and employment policies into the same fiscal planning horizon
5. Align public investment decisions with measurable NDC and SDG results to strengthen accountability and durability

INTERLINKAGES

SDG 1.2

Reduce poverty by at least 50%

The implementation of these actions contributes to SDG target 1.2 by reducing multidimensional poverty through nature-based solutions and informed adaptation. Enhancing climate data systems supports targeted policies; restoring ecosystems protects livelihoods, improves food security, and reduces vulnerability in rural and coastal communities, enabling more resilient, sustainable development for populations most at risk of falling deeper into poverty.

Achieving these actions will yield broad co-benefits. Enhanced climate data supports SDG 13 (climate action) and SDG 11 (resilient cities) by enabling informed planning. Ecosystem restoration advances SDG 15 (life on land) and SDG 14 (life below water), improving biodiversity and coastal resilience. Sustainable mangrove management also supports SDG 6 (clean water) by improving filtration and further strengthens mitigation-adaptation synergies through nature-based solutions.

SDG target 1.2, which aims to reduce multidimensional poverty, connects strongly with several development priorities. It can accelerate SDG 11.6 by fostering cleaner, healthier environments for vulnerable populations; SDG 16.3 by reducing poverty-related justice gaps; and SDG 16.6 by promoting more responsive and inclusive institutions. Together, these targets reinforce the need for integrated social, environmental, and governance solutions to ensure sustainable and equitable development.

Priority NDC Activities

Activity 1

Develop over 80% of the Integrated Information System to assess climate vulnerability, risk, and track national adaptation progress, linked to SNICC.

Activity 2

Restore, rehabilitate, and/or recover 18,000 hectares within protected areas of the National Natural Parks System and their buffer zones.

Activity 3

Reduce vulnerability of mangroves and seagrasses by implementing ecosystem-based adaptation measures in Coastal Environmental Units.

Activity 4

Implement over 25% of the National Mangrove Program, focusing on planning and zoning tools for sustainable management.

NDC SYNERGIES WITH THE PRIORITY SDGS

Activity 1



Activity 2



Activity 3



Activity 4



INTERLINKAGES

SDG 11.1

Safe and affordable housing

Implementing adaptation guidelines for settlements in mitigable risk zones enhances local capacity to reduce vulnerability in informal urban areas. By equipping municipalities with strategic planning tools, this action supports safer, more resilient housing in at-risk communities. It directly contributes to reducing the proportion of people living in inadequate or informal settlements.

Integrating climate adaptation criteria into new housing design improves safety and durability in formal urban development. This approach ensures that construction considers future climate variability from the outset, resulting in higher-quality, more secure housing. By promoting resilient urban infrastructure, it helps reduce the share of the population living in substandard dwellings.

Implementing adaptation guidelines in high-risk settlements influences SDG 11 by improving housing safety, reducing exposure to climate-related hazards, and enhancing urban resilience. These outcomes also support climate adaptation goals of SDG 13, helping communities respond effectively to climate variability while planning for long-term sustainability..

SDG Target 11.1 (access to adequate housing) accelerates SDG 1.4 by reducing multidimensional poverty through improved living conditions. It also supports SDG 8.5 by enabling labour market participation through residential stability, and SDG 10.1 by narrowing urban inequality gaps, particularly for vulnerable and informal populations.

Priority NDC Activities

Activity 1

Guidelines to strengthen resilient settlements in high-risk urban areas.

Activity 2

Climate adaptation criteria for new buildings, linked to preferential financing.

NDC SYNERGIES WITH THE PRIORITY SDGS

Activity 1



Activity 2



INTERLINKAGES

SDG 11.5

Reduce the adverse effects of natural disasters

The implementation of the selected NDC actions will enhance disaster risk reduction and climate resilience in urban areas by: (1) expanding the coverage of real-time monitoring systems connected to early warning networks; (2) integrating climate adaptation and risk management into Territorial Land Use Plans (POT) tailored to local capacities; and (3) implementing a coordinated sectoral policy that leverages GIS tools and technical guidelines. Together, these actions reduce vulnerability, improve preparedness, and strengthen institutional capacity, directly contributing to SDG 11.5 and supporting SDGs 13, 9, and 3.

Accelerating these NDC actions will directly advance SDG target 11.5 and generate co-benefits across multiple SDGs. Strengthening resilience and early warning systems supports SDG 13 (climate action), while nature-based solutions and improved land-use planning contribute to SDG 15 (life on land). Risk-informed infrastructure fosters SDG 9, while the transition to sustainable systems promotes SDGs 7, 8, and 12 through clean energy, green jobs, and more efficient resource use.

SDG target 11.5 aims to reduce the impact of disasters on vulnerable populations by enhancing urban resilience and infrastructure. Investments here will directly support SDG 1.5 by reducing exposure to climate-related shocks and preventing people from falling into poverty due to disasters. It also aligns with SDG 1.3 by reinforcing the role of social protection systems in disaster response. Furthermore, encouraging climate-related investments and partnerships, will contribute to SDG 17.3 through the mobilization of financial resources for sustainable development.

Priority NDC Activities

Activity 1

Implement an integrated sectoral policy to strengthen DRM and CCA through GIS tools, technical guidelines, and institutional coordination.

Activity 2

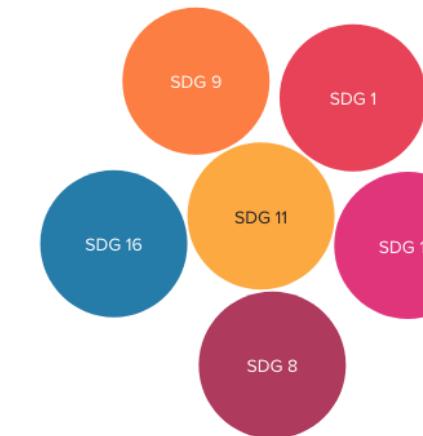
Guidelines to incorporate climate adaptation and risk management into Territorial Land Use Plans (POT), based on local capacities and scenarios.

Activity 3

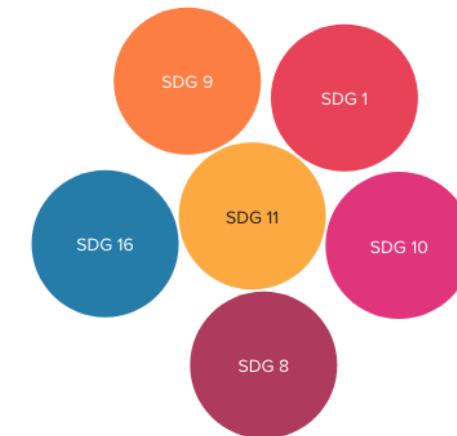
Increase the percentage of the monitoring network with real-time transmission (from 24% to 35%) connected to early warning systems.

NDC SYNERGIES WITH THE PRIORITY SDGS

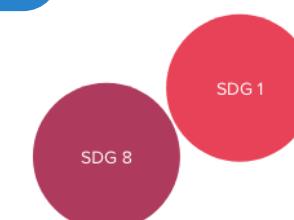
Activity 1



Activity 2



Activity 3



Finance & Stimulus

- 01 NDC X SDG Moment
- 02 NDC X SDG Alignment
- 03 NDC X SDG Interlinkages
- 04 **Finance & Stimulus**



FINANCE & STIMULUS

Many countries are facing reduced fiscal space, high debt levels, rising interest rates and downgrades on credit ratings. Fiscal and financial constraints tend to slow or even reverse SDG progress.

The radar diagram shows low frequency data points linked to government revenue, debt and natural resources rents as a proportion of GDP. The financial indicator graphs show external debt servicing relative to revenue and the country's latest Debt Sustainability Assessment (DSA) risk rating.

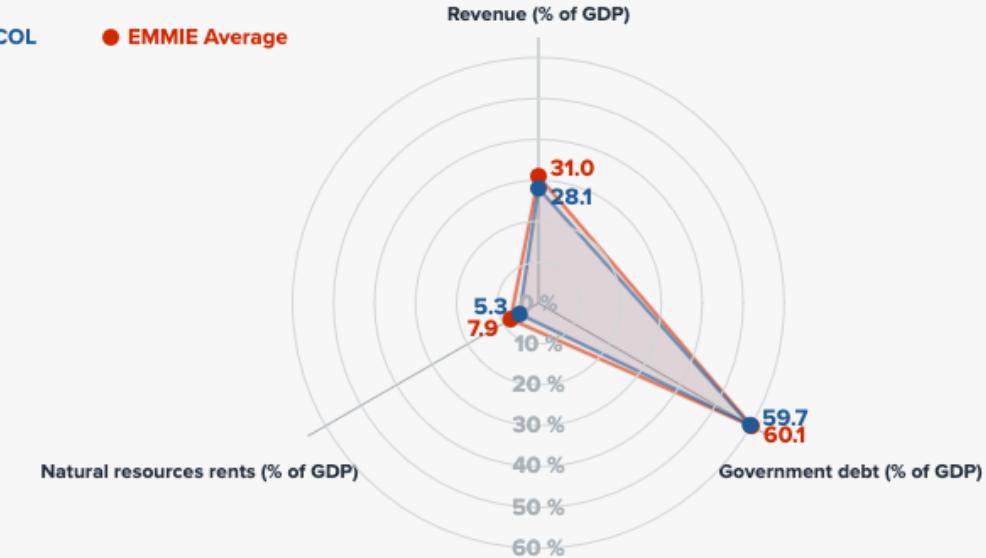
Colombia's gross government debt is projected at 59.7% of GDP in 2025 and thus comparable to the emerging market and middle-income economies (EMMIE) group's average of 60.1%. With a projected 28.1% of GDP in 2025, Colombia collects revenue close to the EMMIE country group average of 31%.

Colombia's external debt servicing this year is expected to reach 7.9% of revenue, which is 4.5 pp below the EMMIE average of 12.4%. The country's credit rating is assessed as 'investment grade', and hence significantly above the EMMIE average of 'highly speculative'.

Colombia is the fourth-largest economy in Latin America and ranks 32nd globally in terms of GDP adjusted for purchasing power parity (PPP), with a GDP of approximately 418 billions dollars in 2024. The GDP per capita in PPP is estimated at around 21.500 dollars. The country's economic growth slowed from 7.3% in 2022 to 1.7% in 2024, with a moderate recovery projected at around 2.4% in 2025 and an estimated increase to about 2.9% by 2027. Colombia remains one of the most unequal countries in the world, with a Gini index between 54 and 54.8 in 2022–2023, making it the most unequal in Latin America. Effective tax revenue collection is low. Economic authorities continue to focus on increasing fiscal revenues, promoting more inclusive growth, and addressing the structural causes of inequality.

LOW-FREQUENCY INDICATORS

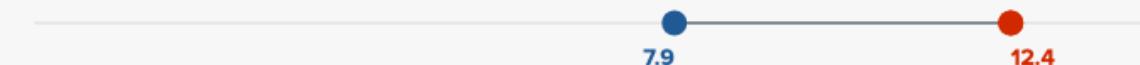
● COL ● EMMIE Average



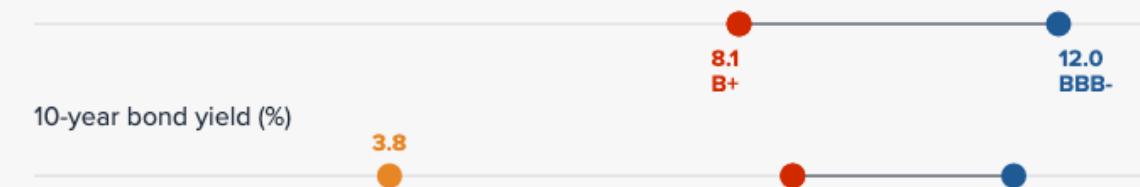
FINANCIAL INDICATORS

● COL ● EMMIE Average ● US Treasury bond

Total external debt servicing (% of revenue)



Credit rating



Notes: External debt covers public and publicly guaranteed debt. The EMMIE average of 10-year bond yield (%) only includes 31 countries which reported data for that indicator. The credit rating shows the numerical average of S&P's and Moody's ratings, expressed in S&P's scale in brackets. The EMMIE average of resource revenue (% of revenue) includes the 96 economies that reported data for that indicator.

Sources: worldgovernmentbonds.com (yields as of Dec 2024) WDI (natural resources rents, data from 2021). UNU-WIDER GRD (resource revenue, data from 2022). IMF WEO April 2025 (debt and revenue, forecasts for 2025). IDS (external debt, data from 2024). Credit ratings based on S&P and Moody's (as of 23 May 2024).

PUBLIC FINANCE

Financing needs

SDGs: Over 12 billion USD per year is required to reach growth targets necessary for achieving SDGs

NDC: Estimated 6.1 billion USD total by 2030

- 1.6 billion USD for mitigation
- 4.5 billion USD for adaptation

Financing strategy

- Colombia financing strategy:**
- National Sustainable Finance Strategy launched
 - NDC financing framework under development
 - SDG implementation guided by CONPES
 - Climate Finance Broker Facility operating

Expenditures & budgets

- Between 2011 and 2023, public expenditure was USD 10.3 billion.
- The spending in 2023 amounted to USD 1.2 billion.
- The domestic public expenditure accounts for 77.5% of the total climate change spending.
- The climate budget in Colombia is formally incorporated into the Budget Law through Law 2169 of 2021 and National Development Plan. Public entities must include specific budget items to meet the climate goals aligned with the National Development Plan and the NDC.

Debt instruments

- Colombia primarily uses Sovereign Thematic Bonds (Green, Social, and Sustainable) and Debt-for-Nature Swaps to finance climate action. The Thematic Bonds Reference Framework is the regulatory core. Sovereign Social Bonds lead the ranking by amount raised.

International climate finance

- Between 2011 and 2023, the total international public expenditure was USD 2.05 billion.
- International public expenditure in 2023 was USD 207 million.
- In 2023 international public expenditure accounts for 13.22% of the total climate change expenditure.

PRIVATE FINANCE & ECONOMY

Policy & Regulatory Measures:

	Established	In Progress	Not Initiated	Comment
Sustainable Finance Taxonomy				Colombia became the first country in the Americas to launch its own Green Taxonomy in April 2022. This classification framework defines which economic activities and assets are considered "green" or sustainable, facilitating project identification and capital mobilization. The Taxonomy is being actively incorporated into the sovereign bond issuance framework
Green bonds				A Reference Framework for the Issuance of Sovereign Green, Social, and Sustainability Bonds exists [4]. Furthermore, green bonds have been issued at the subnational level, and the Financial Superintendency has issued good practice guides [6]. Blue Bonds: The first blue bond in Colombia was launched in June 2023 by BBVA and IFC, aimed at financing initiatives related to the sustainability of water resources
Sustainability / Social bonds				Colombia issued its first two sovereign social bond benchmarks for USD 2.5 billion [9]. Sustainability Bonds: The Sovereign Reference Framework includes the issuance of sustainability bonds, which combine green and social projects. These instruments are fully operational in the Colombian market.
SDG / impact / transition bonds				The concept of "energy transition bonds" has been proposed and is in the process of formalization, with mentions in the context of incentives and regulation. SDG/Impact Bonds: While the objective of green, social, and sustainability bonds is to contribute to the SDGs, a distinct "SDG Bond" or "Impact Bond" category is not as formalized as the others. However, the concept of impact is intrinsically linked to the existing frameworks.
ESG / Corporate reporting				Sustainability (ESG) reporting is currently voluntary for most companies in Colombia, according to clarifications from the Superintendence of Corporations (Superintendencia de Sociedades). However, there is a clear regulatory trend, and it is expected to become mandatory for certain companies under the Superintendence's surveillance that exceed specific thresholds, possibly starting in 2025. The Financial Superintendency has also issued documents on ESG information disclosure
SDG Impact /IMM				The focus on SDG impact is a guiding principle of sustainable finance policy in Colombia. IMM: Although the concept of Impact Measurement and Management (IMM) is fundamental to impact finance and is mentioned in the global context [7], direct evidence of a formal and widespread adoption of the Impact Management Project (IMM) framework in Colombian regulation is limited. It is considered "In Progress" because impact measurement is an essential component of the established thematic bonds, but the specific IMM framework does not appear to be formally "Established" at the regulatory level.

Innovative Instruments:

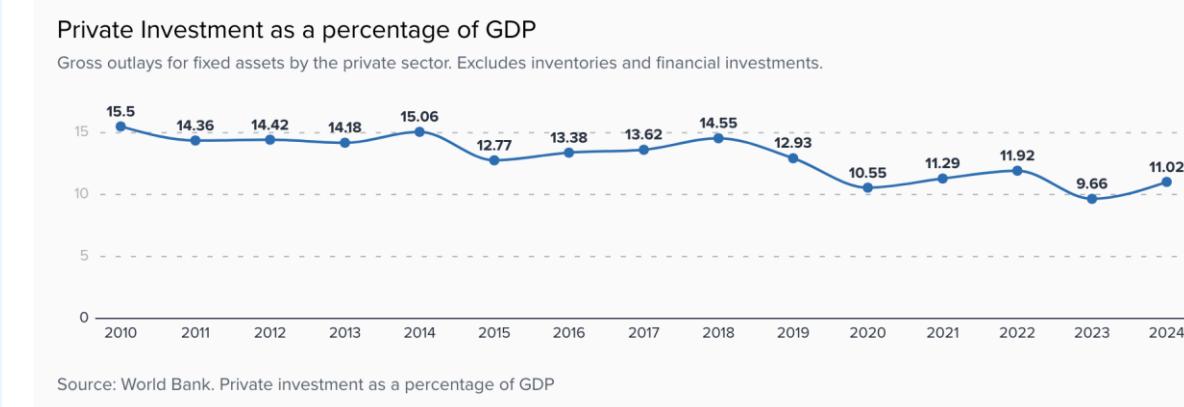
The main private debt instruments for financing sustainability and climate action projects in Colombia are Green Bonds, Sustainability-Linked Bonds (SLB), Private Debt Funds, and Green Loans. The market has mobilized over USD 2.4 billion in VSS+ debt, with Green Bonds being the most popular, targeting sectors like renewable energy and sustainable construction, all supported by the SFC's regulatory framework.

International Investment

Colombia is a key destination for international private investment (IPI) in climate action. The country promotes a portfolio of projects (Plataforma País) aiming to attract over USD 36 billion in IPI, focusing on solar, green hydrogen, and sustainable mobility. This effort is supported by a robust regulatory framework and multilateral banks. International private investment has boosted Colombia's climate action, with 27 new renewable energy projects entering in 2025. Firms like Atlas Renewable Energy and Ecoener are involved, while USAID mobilizes over US\$450 million, and green hydrogen could attract up to US\$45 billion in future investments.

Domestic Investment:

The graph shows Domestic Private Investment as a percentage of GDP peaked at over 17% around 2008. It subsequently declined and became volatile, stabilizing between 9.5% and 12% in the most recent years shown, around 2020-2024.



SDG Investor Map

19 Investment Opportunity Areas (IOAs) that contribute to the government's NDC priorities and meet SDG needs. The priority IOAs span **6 climate-relevant sectors** in Colombia:

Technology and Communications	Renewable resources and energy	Food and agriculture investments	Infrastructure	Healthcare	Finance
-------------------------------	--------------------------------	----------------------------------	----------------	------------	---------

METHODOLOGY



NDC X SDG MOMENT

Methodology

Assesses challenges and opportunities in national growth trajectories with insights on environmental sustainability.

Data Sources

- UNDP 2025 (Human Development Index)
- European Commission 2023 (INFORM Climate Change Risk Index),
- IMF 2022 (IMF-Adapted ND-GAIN Index);
- Environmental Performance Index 2024 (GHG growth rate adjusted by emissions intensity & Projected Emissions in 2050);
- Helen Phillips; Adriana De Palma; Ricardo E Gonzalez; Sara Contu *et al.* 2021 (Biodiversity Intactness Index).



ALIGNMENT & INTERLINKAGES

Methodology

NDC activities from Colombia's NDC submission are extracted. These are mapped with Mitigation or Adaptation Actions defined by SCAN-Tool initiative, which finds interlinkages between these Actions and the SDGs. Accordingly, synergies and trade-offs between NDC activities and the SDGs are identified.

Data Source

NDC activities data are from NDC-SDG Connections ([Connecting climate action to the Sustainable Development Goals | NDC-SDG Connections \(idos-research.de\)](#)); Mitigation or Adaptation Actions are defined by SCAN-Tool ([Scan tool - Ambition To Action](#)).



FINANCE & STIMULUS

Methodology

Provides an overview of the financing options for NDC implementation.

Data Source

- Acceso a la información sobre los Fondos Climáticos en Colombia, Transparencia por Colombia, 2023.
- <https://sdgfit.imf.org/baseline/overview>
- https://www.climateworks.org/wpcontent/uploads/2022/04/iGST-Reporte-Consistencia-de-los-flujos-financieros_FINAL29Marzo.pdf
- https://unfccc.int/sites/default/files/resource/2024.04_COLOMBIA_Sustainable_Finance_Strategy_and_related_regulation.pdf?utm_source=chatpt.com
- <https://finanzasdelclima.dnp.gov.co/Paginas/index.aspx>
- <https://mrv.dnp.gov.co/Paginas/Inicio.aspx>
- PRIMER INFORME BIENAL DE TRANSPARENCIA DE COLOMBIA