

**PROGRAM INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

October 13, 2017
Report No.: 120453

Operation Name	Second Sustainable Development and Green Growth Development Policy Loan
Region	LATIN AMERICA AND CARIBBEAN
Country	Colombia
Sector	Public administration- Transportation (10%); Solid waste management (10%); Wastewater Treatment and Disposal (10%); Sanitation (10%); General public administration sector (60%)
Operation ID	P161642
Lending Instrument	Development Policy Financing
Borrower(s)	Republic of Colombia
Implementing Agency	Ministry of Finance and Public Credit (MHCP) and National Planning Department (DNP)
Date PID Prepared	October 13, 2017
Estimated Date of Appraisal	October 23, 2017
Estimated Date of Board Approval	December 14, 2017
Corporate Review Decision	Following the corporate review, the decision was taken to proceed with the appraisal of the operation.

I. Country and sector background

Green growth is both necessary and desirable for Colombia. Colombia's recent growth performance has been sustained by rising wealth and by a relatively important, albeit declining, stock of natural capital. Natural capital represents a significant share of Colombia's total wealth (10 percent),¹ but is under threat from air and water pollution in urban areas, forest and land degradation and from a growing vulnerability to natural disasters and climate change effects.

Green growth is essential to balance growth with improved quality of life and reduced vulnerability to disasters and climate change. Environmental health problems impose high physical and monetary costs in terms of human illness and death. In 2015, more than 13,000 direct deaths were directly attributable to urban air pollution, indoor air pollution from burning solid fuels for household cooking, and inadequate access to improved water sources and sanitation, with an estimated valuation of over Colombian Peso (COP) 20.7 billion (2.6 percent of 2015 GDP).² In 2007 combined natural resources losses and pollution damages were estimated to cost the equivalent of 3.7 percent of Gross Domestic Product (GDP). At the same time, high vulnerability to natural disasters calls for a strengthened institutional approach to disaster risk management and prevention. Floods and landslides are the most frequent disasters that afflict

¹ World Bank, Forthcoming, Changing Wealth of Nations 2017.

² *Departamento Nacional de Planeación (DNP)*, Costos en Salud Asociados a la Degradación Ambiental en Colombia 2015.

cities and rural areas, and their frequency is expected to rise due to climate change effects and greater climate variability. On average, more than 600 natural disasters are reported each year; some 64.7 percent of the population and 86.6 percent of assets are in areas exposed to two or more natural hazards.³

The Government of Colombia (GoC) has made green growth an overarching strategy of its National Development Plan (NDP) 2014-2018. The Plan's five main themes -- (i) Strategic Competitiveness and Infrastructure; (ii) Social Mobility; (iii) Field Transformation; (iv) Security, Justice and Democracy for Peacebuilding; and (v) Good Governance -- are framed by an overarching green growth strategy that meets the Constitutional commitment for economically, socially and environmentally sustainable growth. This green growth strategy has three objectives: (a) to advance sustainable growth compatible with climate change; (b) to protect and ensure the sustainable use of natural capital and improve environmental quality; and (c) to strengthen resilience by reducing vulnerability to natural disasters and climate change.

This proposed Development Policy Finance (DPF) supports the implementation of Colombia's green growth strategy. The Second Sustainable Development and Green Growth Development Policy Loan (DPF2) is the second in a series of two single-tranche programmatic DPF. This DPF complements and strengthens Colombia's planned accession to the Organisation for Economic Co-operation and Development (OECD), its ratification of the Paris Climate Agreement, and supports peace building to accelerate reforms that will improve quality of life and economic growth in newly opened regions and for all of Colombia's citizens. This unique opportunity, coupled with elections in mid-2018 have led to the second and third DPFs proposed under the original Program being consolidated into one DPF. This second DPF is also strengthened by adding new prior actions on climate change, forests and sanitation compared to the original program design.

The nation's pledge in July 2017 to abide by the Paris Agreement to reduce greenhouse gas emissions and adapt to climate change provides another impetus towards green growth. The Paris Agreement could be a significant driver of green growth. For example, Colombia's push to cut emissions should benefit from the country's largely untapped non-conventional renewable energy potential, a sector this DPF supports. In addition, with support of this DPF the GoC would promote massive public transportation, non-motorized transportation, reduction of particulate matter (PM2.5) and a circular economy that minimizes solid waste disposal.

The GoC recognizes that the conflict has affected different territories in a differentiated way. While the DPF Program originally focused on urban issues, due to close dialogue with the GoC, DPF2 also supports the consolidation of peace efforts in rural areas. Significant additions include reforms to better monitor forest land use changes, to establish a Payment for Ecosystem Services (PES) Program, to support the Forests for Peace Program, and to strengthen the National Rural Electrification Plan. The peace process and green growth are compatible. For example, the country's strengthened legal and institutional framework for promoting non-conventional renewable energies will contribute to decreasing the chances of energy shortages and increasing productivity in rural areas.

The DPF Program's support to the GoC's National Development Plan and green growth agenda reinforces the stability of the macroeconomic framework in the short and medium

³ World Bank, *Hacia la paz sostenible, la erradicación de la pobreza y la prosperidad compartida. Notas de política: Colombia*. (Bogotá D. C., 2014).

term. By supporting green growth reforms in sectors such as transport (e.g. use of greener modes of transport), chemicals (e.g. promotion of risk management measures) and forestry (e.g. establishing state of the art monitoring systems), the DPF is supporting green technology development and green competitiveness. In addition, growth engines need to be managed sustainably and made more resilient to disasters and climate change to be able to support development.

II. Operation Objectives

The Second Programmatic Sustainable Development and Green Growth DPF deepens and accelerates implementation of structural reforms in key areas for green growth. The project development objective (PDO) is to support a set of policy and institutional measures for (i) green growth in transport, energy, environmental health and natural resources; and, (ii) improving environmental quality by reducing PM 2.5 in the air, strengthening regulations for sanitation, and increasing capacity to reuse and dispose solid waste.

Implementation of the NDP has been strong and National Planning Department (*Departamento Nacional de Planeación, DNP*) estimated an achievement rate of 85 percent of the green growth targets for 2016. Under objective 1, key achievements include, among others, the fact that 557 thousand vehicles were using alternative sources of fuel (92 percent of the NDP target); 41 thousand new users were covered by electric energy services (179 percent of the NDP target); electricity generation installed capacity from non-conventional and renewable sources increased (11 percentage points above the NDP target); and the average age of heavy load transport vehicles was reduced from 19 to 18 years. Under objective 2, key achievements, among others, include the fact that land under restoration processes increased from 400,021 to 477,538 hectares between 2014 and 2016 (29.2 percentage points above the target for the period and 37 percent of the NDP target); significant progress was made in the implementation of the National Strategy for Reduction of Emissions from Deforestation and Forest Degradation (REDD+) and the Amazon Vision initiative; new watershed management plans were formulated (100 percent of the NDP target); and 27 territorial entities included climate change criteria in their territorial planning instruments (19 percentage points above the target for 2016). In addition, 8,517, 296 persons have access to potable water in rural areas (96.7 percent of the NDP target). Finally, under objective 3, key achievements include the fact that a National Plan for Disaster Risk Management was published; technical assistance on risk management was provided to 26 municipal councils (100 percent of the NDP target); monitoring stations increased by 1053 units to improve information availability about natural disasters; and a Climate Change Plan for Seaports was formulated.⁴

The selection of prior actions included in the Policy and Results Matrix of the DPF reflects the GoC's commitment to deliver a cohesive program of policy and institutional actions. This operation promotes green growth through two complementary pillars. Pillar 1 focuses on key sectors to reduce pollution, mitigate and adapt to climate change, improve environmental health, and conserve forests. These benefits result from efficiency gains in transport, power generation, chemicals management and forestry and, therefore, they promote growth. In addition, acknowledging the growth benefits from a healthier population, Pillar 2 focuses on quality of life

⁴ Data from “Sistema Nacional de Gestión y Evaluación de Resultados (SINERGIA) Seguimiento”: <http://sinergiapp.dnp.gov.co/#HomeSeguimiento> accessed on 8/29/17.

gains through reducing air, water and soil pollution. Pillars 1 and 2 reinforce each other because improved sector efficiency is reinforced by greater productivity of labor (reductions in morbidity and mortality due to less pollution) and natural capital (reductions in natural resource depletion per unit of output).

III. Rationale for Bank Involvement

The proposed operation is closely aligned with the objectives of the World Bank Group's (WBG) Colombia Country Partnership Framework (CPF) FY2016-2021, discussed by the Executive Directors on April 7, 2016 (Report No. 101552-CO). The CPF supports the NDP 2014-2018 through a portfolio of financial, knowledge, and convening services. This DPF contributes directly to Pillar 1 of the CPF (Fostering Balanced Territorial Development), as green growth and environmental sustainability are key dimensions for territorial development. More specifically, this DPF contributes to GoC's efforts of Theme 1 ("Towards a New Colombian Countryside: Comprehensive Rural Reform) by supporting peace building through rural electrification, PES and the Forests for Peace. These policy actions will assist in balancing uneven territorial development that is required for peace consolidation. This DPF also responds to the WBG Climate Change Action Plan (2016) specifically on themes related to resilience with low-carbon growth and is aligned to the WBG Forest Action Plan FY16-20 in the area of governance and institutions.

This DPF complements a series of Bank DPF and investment operations in Colombia. The Bank has been actively assisting the GoC with environmental enhancements (e.g. Rio Bogota project) and policy-based reform programs (e.g., First Territorial Development Policy Loan - P158520 and the First Colombia Fiscal and Growth DPF1 - P158739) that in combination with this operation provide the ground for the implementation of the current NDP. The Forest Carbon Partnership Facility Readiness Grant (P120899) and the Forest Conservation and Sustainability in the Heart of the Colombian Amazon (P144271) is part of the strong portfolio that supports a set of key issues on the environmental and territorial development agenda. In addition, the Second Colombia Fiscal and Growth DPF2 (P162858), is supporting green tax reforms that are closely complementary to the reforms supported by the current operation.

The policy and institutional program supported by the DPF2 has undergone extensive consultations and has benefited from a participatory process associated with the NDP 2014–2018. The preparation and implementation process of the NDP 2014-2018 provided a strong platform for collaboration and consultation with other donors and relevant stakeholders throughout 2014–15 but also during implementation. Technical inputs were furnished by renowned experts, government bodies, and civil society. At least 34 seminars and workshops were carried out to discuss the NDP 2014-2018 at the subnational level (*Diálogos Regionales para la Construcción del Plan Nacional de Desarrollo 2014–2018*). The dissemination process related to the NDP 2014-2018 has been documented on the DNP website.⁵ The policy actions included under this operation were drafted and agreed by the relevant sectors (including MHCP, Ministry of Transport (MT), Ministry of Environment and Sustainable Development (*Ministerio de Ambiente y Desarrollo Sostenible, MADS*), Ministry of Mines and Energy (*Ministerio de Minas y Energía, MME*), Ministry of Housing, Cities and Territories (*Ministerio de Vivienda, Ciudades y Territorios, MVCT*), and the National Disaster Risk Management Unit (*Unidad*

⁵ <https://www.dnp.gov.co/sala-de-prensa/Paginas/Presentaciones-.aspx>, accessed January 8, 2017.

Nacional para la Gestión del Riesgo de Desastres, UNGRD), in consultation with DNP. In addition to the strategic context provided by the NDP consultations, all prior actions included under this operation were subject to public consultations, following the GoC’s criteria and procedures.

The DPF series complements efforts led by other development partners. The GoC has partnered with other international agencies to prepare policy-based programmatic operations in support to the NDP agenda. The French Agency for Development (*Agence Française de Développement, AFD*) and Development Bank for Latin America (CAF) are preparing an operation focused on rural development in the post conflict context. The German Development Bank (*Kreditgesellschaft für Wiederaufbau, KfW*) is developing an operation focused on natural resources management and general aspects of green growth and a second one to support the GoC’s peace building agenda. The Inter-American Development Bank (IDB) has supported the GoC to address energy sector priorities supporting the diversification of the country energy matrix and access to new geographic areas.

Collaboration with the International Monetary Fund (IMF) has ensured the DPF’s consistency with the IMF’s policy advice. The Bank has collaborated closely with the IMF in the review and assessment of macroeconomic developments. The macroeconomic framework for the operation is fully consistent with the IMF.

IV. Tentative financing

Source:		(\$m.)
Borrower		0.00
International Bank for Reconstruction and Development		500.00
	Total	500.00

V. Institutional and Implementation Arrangements

MHPC is the main coordinating agency for this DPF, while DNP is responsible for coordinating actions among the concerned agencies (MADS, MT, MVCT, MME, Ministry of Information Technology and Communications (MinTic) and Ministry of Health and Social Protection (MSPS)). DNP is the technical coordinator of budget support loans in Colombia. As part of the supervision of DPF1, DNP has collected and reported to the Bank the information related to the implementation progress of the program. The ongoing dialogue and the permanent monitoring and evaluation has allowed the adjustments of the policy matrix to capture the changes and timeline established by the GoC for the reform supported by this programmatic DPF.

VI. Risks and Risk Mitigation

The overall risk of the operation is the same of DPF1 and is assessed as *moderate*. The main risks are related to political and governance and the institutional capacity for implementation. The macroeconomic risks are moderate. These risks will be closely followed up during the implementation of DPF2.

- **Political and Governance risks are substantial.** Political and governance risks can be considered in two clusters. First, the risks to the urban and pollution actions are likely only moderate, given gains in pollution management are common to virtually all upper middle income countries, have low costs compared to high welfare gains, and are expected and even appreciated by foreign investors. Second, the risks to the rural and forestry actions are substantial because the rural populations are in flux, the forest areas are contentious, and strong government commitment is needed to implement the proposed actions. The rural and forestry prior actions would be potentially affected by progress made in the peace process itself in rural areas. To mitigate the risk, the World Bank will continue to support the forest management agenda over the coming years through the FCPF and the BioCarbon Fund programs at the national level and at the level of selected regions, such as Orinoquia. The Bank will also continue support for the roll out of the multi-purpose cadaster which will contribute to improve land tenure issues over time DPF.
- **Institutional capacity for implementation and sustainability.** Given the multi-sectoral nature of the program's reforms, effective institutional coordination is a substantial risk for the proposed DPF. Decentralization in Colombia includes evolving power relationships between the different levels of government and territorial authorities may be hesitant to implement national policies. The GoC, through DNP, is committed to ensure broad discussions of the issues among the national ministries, subnational entities, and stakeholders, enhancing the credibility and effectiveness of policy actions, which will help to mitigate this risk. The implementation of DPF1 has demonstrated that DNP can play an effective coordination role, which they have already done during the preparation and implementation of DPF2. As part of the NDP 2014-2018 implementation, the technical assistance and investment gaps that need to be addressed to ensure a successful implementation of the program of reforms have been identified and served the GoC to assign clear institutional responsibilities and budget allocations for each policy action.
- **Macroeconomic.** Macroeconomic risks arise from the uncertainty in the external outlook and domestic developments. A further fall in oil prices, depressed demand from export partners, and greater volatility in international markets could deepen Colombia's economic slowdown and fiscal pressures. Some of the proposed tax policy may prove to be politically contentious and in their absence market credibility may be harder to retain, causing a rise in financing costs for the economy. There is also the possibility that domestic factors, such as the impact of El Niño and the tightening of monetary and fiscal policy, could have a greater than expected dampening effect on economic growth. These scenarios could result in slower progress of the DPF program than currently foreseen. However, the fiscal and structural reforms, so far undertaken by the GoC and its strong commitment to abide with its fiscal rule, strengthen its resilience to exogenous shocks in the medium term. Overall, risks in this category are assessed as moderate.

VII. Poverty and Social Impacts and Environment Aspects

While the prior actions under the DPF are not expected to have significant adverse effects on poverty and inequality, minor adverse impacts could potentially arise from a narrow set of reforms. For example, minor adverse impacts could arise from the informal labor implications of promoting the use of bicycles and regulating tricycles and from the formalization of waste pickers. The GoC is studying how to implement mitigation mechanisms for potential negative impacts in labor market outcomes of regulations associated with informal public transportation. The impact on informal waste pickers will likely be short-lived given the program's partial phase-out.

In fact, the DPF2 is expected to have significant direct positive effects on the health of the population. Positive health effects are expected from the use of cleaner modes of transport and improved air pollution. Moreover, positive health impacts will arise from regulations to set cost-effective procedures for wastewater disposal into soil and from measures aimed at providing isolated rural communities with access to drinking water and sanitation services, leading to a decrease in the incidence of waterborne diseases. Improving solid waste management and operating procedures of sanitary landfills will also benefit health outcomes from a decrease in illness and injury from soil and water pollution stemming from landfilling. Other positive impacts include lower risk of infectious diseases; improved living standards of waste pickers through regularized tariff schedules; and less flooding and water-borne illness because of solid waste blocking runoff to channels and gullies.

The prior actions supported by DPF2 are expected to have significant positive effects on the environment, forests and natural resources. By its nature this DPF supports expansion of environmental policies to accelerate green growth, protects forest assets and sets limits on pollutants that would otherwise damage natural capital and environmental health. Improvements in quality of life would result from cleaner air and reductions in accidents associated to using chemicals. Forest protection and biodiversity conservation will cause reductions in losses in natural capital, and increases in income through payments for environmental services favoring, particularly, vulnerable rural communities. Fostering climate change adaptation will indirectly enhance productivity by reducing damages to infrastructure and production capacity and reduce floods that affect homes of poor people, who are most severely affected by climate events such as el Niño o la Niña. Potential adverse effects such as flue gases from incineration or excessive noise levels related to alternative technologies to dispose waste or leakages from production of biofuel to deforestation would be mitigated through the existing systems for environmental impact management, which are robust and have been proved effective in prior Bank operations.

The reforms supported by this operation will accelerate mitigation and adaptation to climate change across Colombia. Climate co-benefits are fundamental in Colombia's Green Growth strategy. As climate models predict that natural disasters will be exacerbated due to an increase in extreme weather events, Colombia's key challenge is to address its climate change vulnerability with effective mitigation and adaptation measures. This operation will contribute to climate change mitigation and adaptation.

VIII. Contact point

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