

# SUSTAINABLE INFRASTRUCTURE IN THE AMAZON

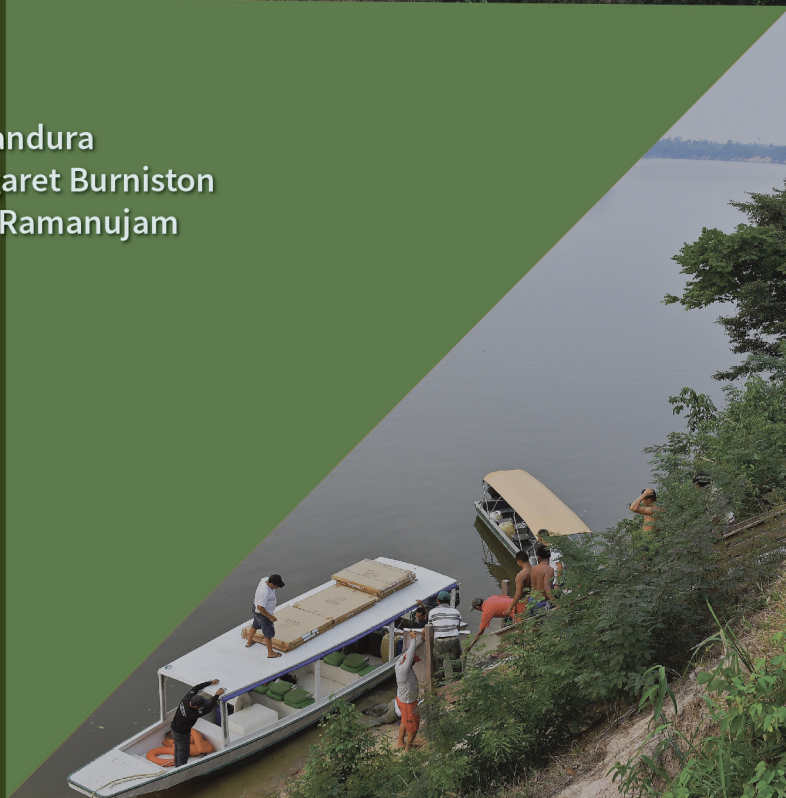
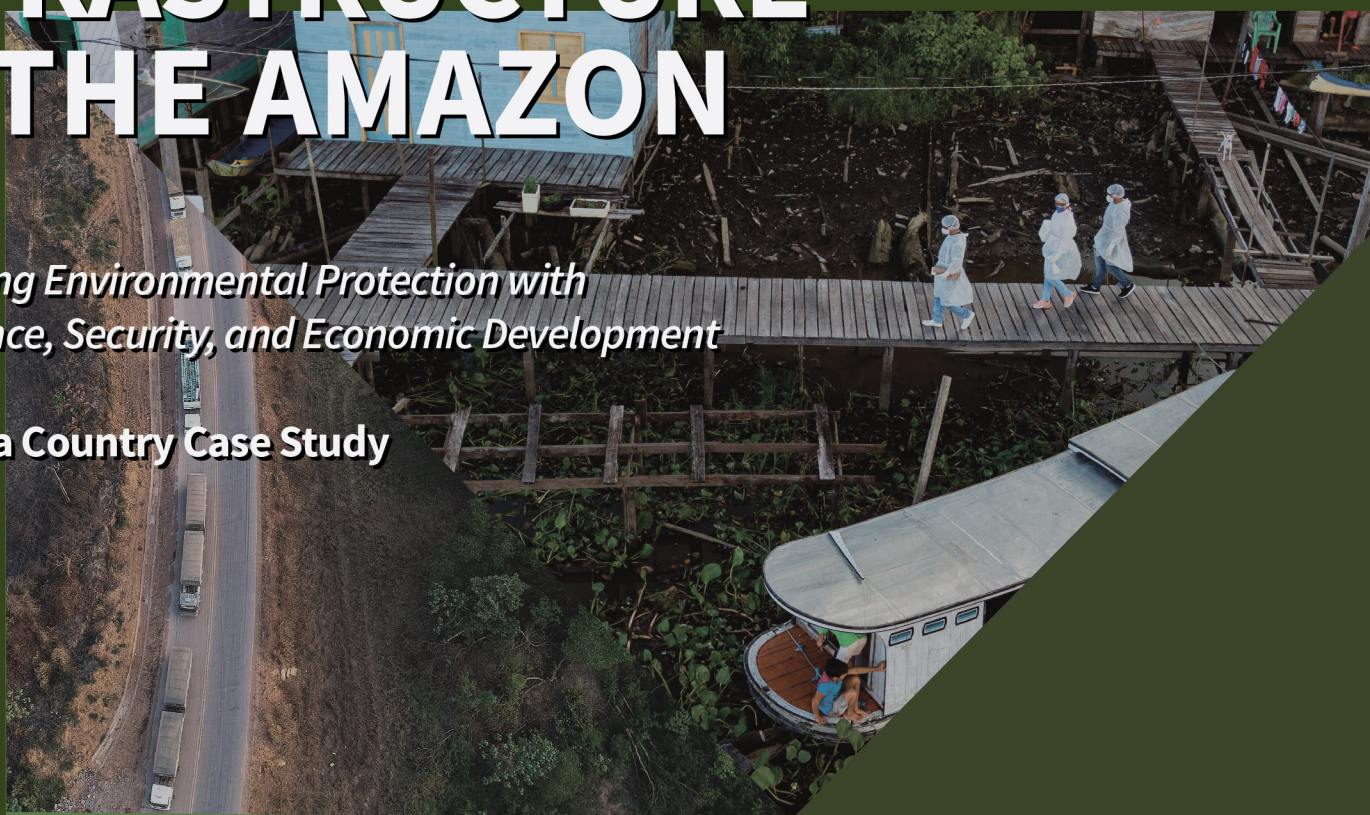
OCTOBER 2020

*Connecting Environmental Protection with  
Governance, Security, and Economic Development*

**Colombia Country Case Study**

## AUTHORS

Romina Bandura  
Mary Margaret Burniston  
Sundar R. Ramanujam



A REPORT OF THE CSIS  
PROJECT ON PROSPERITY AND DEVELOPMENT

CSIS

CENTER FOR STRATEGIC &  
INTERNATIONAL STUDIES

OCTOBER 2020

# Sustainable Infrastructure in the Amazon

*Connecting Environmental Protection with  
Governance, Security, and Economic Development*

Colombia Country Case Study

AUTHORS

Romina Bandura

Mary Margaret Burniston

Sundar R. Ramanujam

A Report of the CSIS Project on Prosperity and Development

# About CSIS

The Center for Strategic and International Studies (CSIS) is a bipartisan, nonprofit policy research organization dedicated to advancing practical ideas to address the world's greatest challenges.

Thomas J. Pritzker was named chairman of the CSIS Board of Trustees in 2015, succeeding former U.S. senator Sam Nunn (D-GA). Founded in 1962, CSIS is led by John J. Hamre, who has served as president and chief executive officer since 2000.

CSIS's purpose is to define the future of national security. We are guided by a distinct set of values—nonpartisanship, independent thought, innovative thinking, cross-disciplinary scholarship, integrity and professionalism, and talent development. CSIS's values work in concert toward the goal of making real-world impact.

CSIS scholars bring their policy expertise, judgment, and robust networks to their research, analysis, and recommendations. We organize conferences, publish, lecture, and make media appearances that aim to increase the knowledge, awareness, and salience of policy issues with relevant stakeholders and the interested public.

CSIS has impact when our research helps to inform the decisionmaking of key policymakers and the thinking of key influencers. We work toward a vision of a safer and more prosperous world.

CSIS is ranked the number one think tank in the United States as well as the defense and national security center of excellence for 2016-2018 by the University of Pennsylvania's "Global Go To Think Tank Index."

CSIS does not take specific policy positions; accordingly, all views expressed herein should be understood to be solely those of the author(s).

**© 2020 by the Center for Strategic and International Studies. All rights reserved**

## Acknowledgments

This report would not have been possible without the generous support of the Gordon and Betty Moore Foundation, with thanks in particular to Kristina McNeff. We are grateful that you have entrusted CSIS with such a significant undertaking.

Center for Strategic & International Studies  
1616 Rhode Island Avenue, NW  
Washington, DC 20036  
202-887-0200 | [www.csis.org](http://www.csis.org)

# Contents

Executive Summary..... 1

Introduction..... 3

Challenges in the Colombian Amazon ..... 8

Toward Sustainable Infrastructure in the Colombian Amazon ..... 25

Annex A: Overview Of The Legal Framework For Protecting the Colombian Amazon..... 29

Annex B: Colombia’s International Environmental Commitments ..... 32

About The Authors ..... 35



# Executive Summary

Despite the significant progress the Colombian government has achieved in the past five years in economic development and the strong international commitments it has made to combat climate change and preserve biodiversity, deforestation in the Colombian Amazon remains an ongoing challenge. Since the early-1990s, Colombia has lost more than six million hectares of forest, largely driven by criminal groups that engage in illegal appropriation of land (land-grabbing), the development of road infrastructure, cattle ranching, and illegal mining and narcotics trafficking.

Yet deforestation in the Amazon cannot be circumscribed solely as an environmental phenomenon; it is the inevitable outcome of a confluence of security, economic, and governance factors. The following structural challenges in Colombia enable the drivers of deforestation to thrive:

- **Insecurity and Weak State Presence:** The state is weak or absent in many parts of the Amazon, leading to inadequate citizen security, public services, and formal jobs. Many communities are socioeconomically vulnerable and face issues of poverty and informal employment while also receiving few basic services such as education, healthcare, and sanitation. State ineffectiveness and societal vulnerabilities allow criminal groups to remain active in cocaine production, illegal gold mining, and other illegal activities, negatively impacting the rainforest and the security of its communities.
- **Weak Governance:** Low institutional capacity to enforce laws, pervasive corruption, and an inadequate land titling system negatively affect the security and sustainability of the Amazon region. Although Colombia has a strong legal framework to protect the Amazon, implementing these laws remains incomplete, especially at the subnational level. Enforcement and implementation shortfalls make it easier for actors to evade the law, perpetuating the current trends. At the same time, Colombia also has an inadequate land titling system, and in the Amazon, land-grabbers such as agricultural landowners and other groups take advantage of a weak land registry and exploit official corruption to secure land quickly and illegally deforest it.
- **Lack of National-Subnational Coordination in Infrastructure:** There are national government development plans and policies for the Amazon region, but these are often disconnected or at odds with subnational development plans, yielding poor project choices and wasting resources, ultimately affecting sustainability in the region.

While these challenges are severe and real, Colombia is probably best positioned among the nine countries bordering the Amazon rainforest to lead efforts to create a more sustainable future for the basin due to a number of factors:

- A strong cross-partisan political commitment and legal framework to preserve the Amazon.
- Sufficient fiscal space that can be leveraged to redirect significant financial resources toward subnational governments and help them address the challenges and risks to the rainforest.
- A highly capable bureaucracy that can continue pursuing greater regional cooperation efforts in the Amazon.
- Strong military, political, and financial backing from the United States.
- A delimited amount of land where agricultural economic activities can take place (called the agricultural frontier, comprising 35 percent of the Colombian territory).

These strengths present Colombia with an opportunity to follow a more sustainable approach to the Amazon Basin centered on:

- **Combining Security with Economic Development and Environmental Preservation:** Colombian authorities can overcome institutional dissonance by creating an independent office headed by a non-partisan deforestation “czar” to tackle deforestation in a whole-of-government manner. Secondly, Colombia should combine deforestation prevention efforts with a more integrated effort across all sectors from health care to the environment, education, infrastructure, and economic development. Thirdly, public-sector resources can be used to provide grants, loans, and guarantees that can minimize the risks involved in making investments to develop or transform the value chains in the Colombian economy.
- **A Multisectoral and Integrated Vision for Infrastructure Development:** It is imperative for Colombia to invest in sustainable and resilient infrastructure. This should begin with a more concerted discussion of the types of infrastructure that the Amazon region needs to invest in and their purposes. In order to address national road infrastructure development plans that are at cross-purposes with local plans, infrastructure development needs to be embedded in multisectoral actions. The Department of National Planning (DNP) can create new channels for governors of the departments to have shared roles in producing development plans, such as a Governors’ Taskforce. Furthermore, Colombia should look to frameworks for “sustainable infrastructure” developed by organizations such as the OECD, the United Nations, multilateral development banks, and development finance institutions (DFIs). Moreover, tools such as green roads guidelines and others being developed by local organizations can guide governments as they plan transport infrastructure in the Colombian Amazon.
- **Strengthening Land Governance:** Colombia can strengthen territorial governance, improve transparency in land registry and titling, and increase the judicial system’s capacity to enforce property rights before destructive actors in the rainforest can inflict significant damage upon it. Colombia already has some valuable legal channels to protect the Amazon’s natural wealth and should focus on enforcing the agricultural frontier, partnering with development agencies and multilateral institutions, and utilizing revolutionary new technologies (such as blockchain, cloud computing, data analytics, and satellite mapping now available for civilian use).

# Introduction

Colombia has recently emerged from a 50-year internal conflict and is undergoing a process of political stabilization and social healing. At the same time, the country has achieved significant economic progress, becoming the fourth-largest economy in Latin America in 2019.<sup>1</sup> Colombia has nearly halved the number of people in poverty in the past 15 years while doubling the size of its middle class.<sup>2</sup> As a result of these changes, the country became the newest member of the Organization for Economic Cooperation and Development (OECD) in 2018, an exclusive club of advanced nations committed to democratic and free-market practices.<sup>3</sup> Looking forward, Colombia aspires to have an income per capita of \$25,000 in the next two decades.

To realize this ambitious goal, the current Colombian government, under President Ivan Duque, released the *Plan Nacional de Desarrollo (2018–2022)*, (“the National Development Plan (2018–2022),” more commonly known as the PND).<sup>4</sup> This four-year national development plan frames its vision using the United Nation’s Sustainable Development Goals (SDGs). The National Development Plan lays out three key pillars while keeping environmental preservation and ecological sustainability as a cross-cutting theme<sup>5</sup>:

- i. **Legality:** strengthening state presence, fighting illegal activities, and eliminating corruption;
- ii. **Entrepreneurship:** increasing the overall productivity of the Colombian economy, cutting down administrative red tape, and formalizing the national economy; and,
- iii. **Equity:** closing regional gaps and fostering a more inclusive society.

Although Colombia has made significant political and economic achievements, it continues to grapple with underlying socioeconomic, security, and institutional weaknesses. Colombia is one of the most unequal countries in the region in terms of income (with a GINI coefficient of 51.1), and there are significant disparities in access to basic services such as healthcare, education, and sanitation; economic opportunities; and natural resource use.<sup>6</sup> Peace and social stability also remain fragile. The insurgency and violence perpetrated by the Revolutionary Armed Forces of Colombia (FARC) in the 1980s and 1990s have dwindled. Yet, other powerful groups such as the *Ejército de Liberación Nacional* (ELN), the *Clan del Golfo*, and *Los Pelusos* have moved to occupy former FARC territories. Often involved in extortion, kidnapping, and murder, these groups thrive on illegal activities such as cocaine trafficking and gold mining. Unsurprisingly, cocaine production is at an all-time high according to data from the United Nations Office on Drugs and Crime (UNODC), while illegal gold mining is now a more lucrative source in terms of

---

<sup>1</sup> “Report for Selected Countries and Subjects: Colombia,” International Monetary Fund, accessed June 8, 2020, <https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/weorept.aspx?pr.x=77&pr.y=13&sy=2017&ey=2024&scsm=1&ssd=1&sort=country&ds=.&br=1&c=233&s=NGDPRPC%2CNGDPRPPPPC%2CNGDPPC%2CNGDPDPC%2CPPPPC&grp=0&a=>.

<sup>2</sup> Department of National Planning, *Plan Nacional de Desarrollo 2018–2022* (Bogotá: Government of Colombia, 2018), <https://colaboracion.dnp.gov.co/CDT/Prensa/Resumen-PND2018-2022-final.pdf>.

<sup>3</sup> “OECD countries agree to invite Colombia as 37th member,” Organization for Economic Co-operation and Development (OECD), accessed June 19, 2020, <https://www.oecd.org/newsroom/oecd-countries-agree-to-invite-colombia-as-37th-member.htm/>.

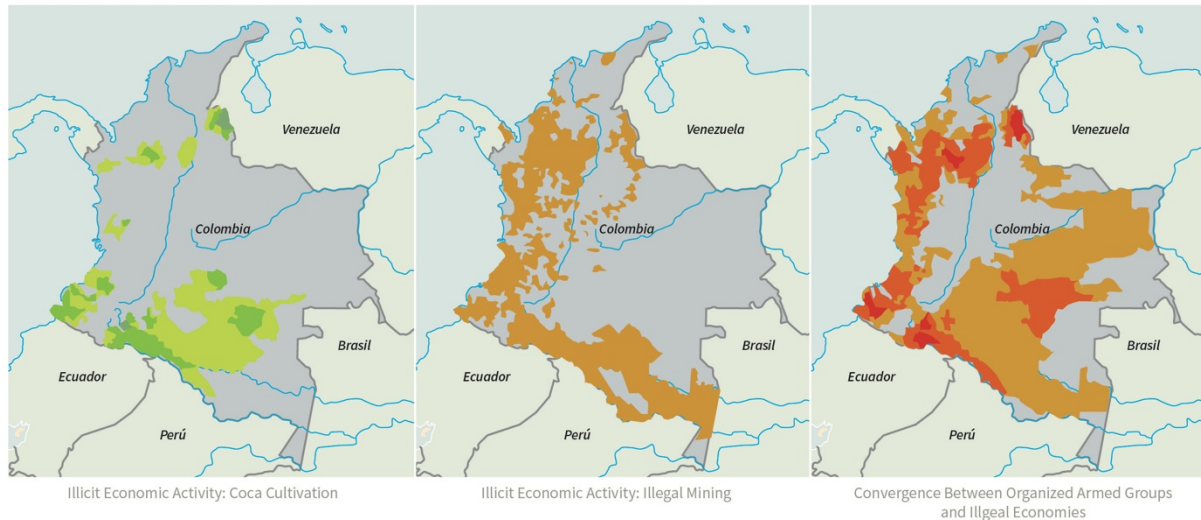
<sup>4</sup> Department of National Planning, *Plan Nacional de Desarrollo 2018–2022*.

<sup>5</sup> Stephen Gill, “Duque Launches His 4-Year Development Plan for Colombia,” Colombia Reports, May 28, 2019, <https://colombiareports.com/colombias-president-duque-launches-4-year-development-plan/>.

<sup>6</sup> “Distribution of Family Income - Gini Index,” Central Intelligence Agency, accessed June 8, 2020, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html>.

income.<sup>7</sup> These groups threaten the social fabric of nearby communities and are responsible for the recent spike in killings of social leaders and human rights defenders.<sup>8</sup> Much of the country's criminal network activities are able to flourish due to weak institutions and lax state capacity in some parts of the country, including the Amazon region (see Map 1), where local governments are often unable to effectively secure neighborhoods, deliver social services, or foster the enabling environment needed for economic opportunities to grow. At the same time, the Amazon region is home to a majority of indigenous communities in the country and is a vital source of environmental wealth and biodiversity.<sup>9</sup>

### CONFLUENCE OF COCAINE, ILLEGAL MINING, AND ORGANIZED ARMED GROUPS IN COLOMBIA



Source: Ministry of National Defense, Presidency of the Republic of Colombia, Defense and Security Policy (PDS): For Legality, Entrepreneurship, and Equity (Bogotá: Government of Colombia, 2019), <http://www.indepaz.org.co/wp-content/uploads/2019/08/POL%C3%8DTICA-DE-DEFENSA-PDS-Mindefensa.pdf>.

Among the Amazon Basin countries, Colombia has one of the most robust legal frameworks for protecting the rainforest (see Annex A). This is in part due to the enactment of a wide range of laws, policies, and development plans that give the Amazon the legal stature of a vital national asset. Consequently, three-fourths of the Colombian Amazon is protected either as Indigenous Territories Reserves or as Protected Natural Areas.<sup>10</sup> Since 1991, Colombia has had one of the “greenest” constitutions in the world, codifying ecological and environmental rights and giving them the same

<sup>7</sup> The Colombian Ministry of Defense utilizes a different methodology of measuring levels of cocaine production which involves hectares of coca crops, eradicated hectares, seized cocaine base, leaf, paste, and hydrochloride. CSIS is inclined, however, to utilize UNODC numbers, which estimate that illicit cultivation of coca bush has been rising since 2013. United Nations Office on Drugs and Crime (UNODC), “Booklet 1: EXECUTIVE SUMMARY Conclusions and Policy Implications,” in *World Drug Report 2019* (Vienna: June 2019), [https://wdr.unodc.org/wdr2019/prelaunch/WDR19\\_Booklet\\_1\\_EXECUTIVE\\_SUMMARY.pdf](https://wdr.unodc.org/wdr2019/prelaunch/WDR19_Booklet_1_EXECUTIVE_SUMMARY.pdf); and Michael Smith and Andrew Willis, “Colombia’s Illegal Gold Mines More Profitable than Cocaine,” *Oakland Press*, July 25, 2013, [https://www.theoaklandpress.com/news/colombias-illegal-gold-mines-more-profitable-than-cocaine/article\\_692ee841-bbfb-507c-ad4f-a9df9623d568.html](https://www.theoaklandpress.com/news/colombias-illegal-gold-mines-more-profitable-than-cocaine/article_692ee841-bbfb-507c-ad4f-a9df9623d568.html).

<sup>8</sup> Department of National Planning, *Plan Nacional de Desarrollo 2018-2022*, 54.

<sup>9</sup> “Forest Governance - Colombia,” Global Forest Atlas, May 2015, <https://globalforestatlas.yale.edu/amazon-forest/forest-governance/forest-governance-colombia>; and “Indigenous peoples in Colombia,” IWGIA, accessed June 8, 2020, <https://www.iwgia.org/en/colombia>.

<sup>10</sup> “Amazonia 2019 – Protected Areas and Indigenous Territories,” Protected Natural Areas and Indigenous Territories in the Amazon, Amazonian Geo-referenced Socio-Environmental Information Network (RAISG), 2009, <https://www.amazoniasocioambiental.org/en/publication/amazonia-2019-protected-areas-and-indigenous-territories/>.



status as civil, political, economic, and social rights. More recently, a landmark ruling from the Colombian supreme court recognized that all political actors, from the nation's president down to city mayors, have a constitutional obligation to protect the Amazon. The ruling, issued in 2018, has no global precedent. The current National Development Plan and the current National Defense Strategy call Colombian natural resources such as the Amazon a national security priority and the "nation's most strategic asset."

*"The Defense and Security of these (natural) resources is a national security priority"*

*-National Defense Strategy, 36*

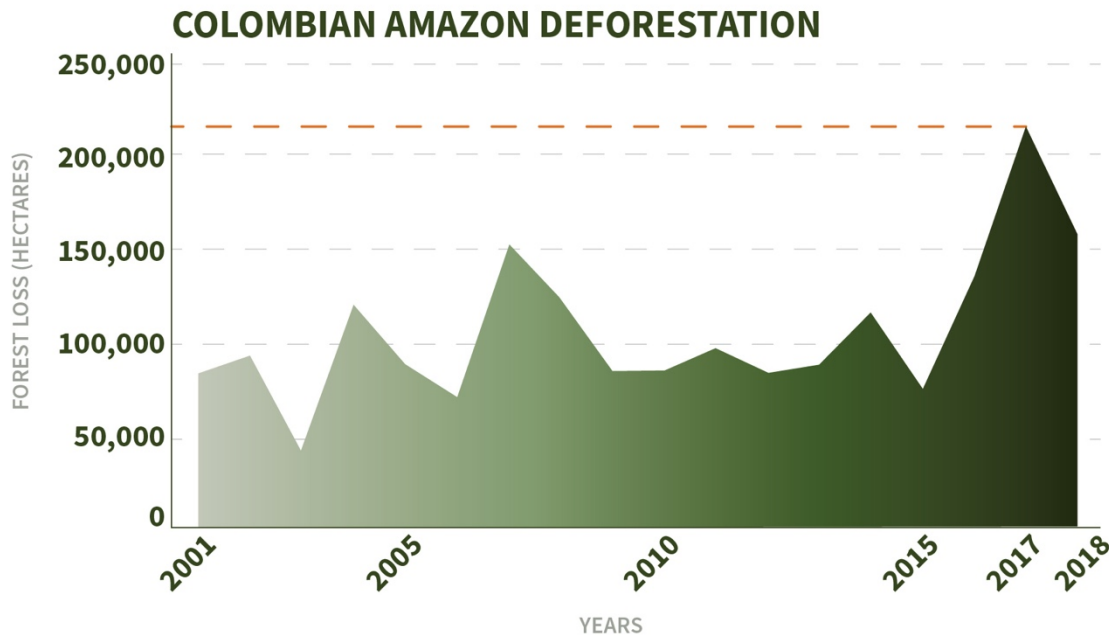
Despite the significant importance this legal framework gives to the Amazon and Colombia's strong international commitments to combatting climate change and preserving biodiversity (see Annex B), deforestation in the region has been a long-standing problem (see Figure 1). On average, nearly three-fifths of Colombia's deforestation (58 percent) takes place in the Amazon.<sup>11</sup> Deforestation rates increased further following the 2016 peace deal. FARC rebels were disarmed, but the Colombian state was unable to quickly fill the power vacuum left behind due to geographical complexities and other historical factors that had path-dependent consequences. Additionally, residual armed organized groups remained active after the peace deal, further hindering the government's ability to take full control of the region. This made the region more vulnerable to land squatters, international agribusiness groups, and illegal loggers, and it incentivized criminal groups to engage in both illegal mining and narcotics trafficking.<sup>12</sup> These groups have opened new roads, mainly tertiary roads, in the northwest arc of the Amazon, inciting more deforestation.<sup>13</sup>

---

<sup>11</sup> Department of National Planning, *Plan Nacional de Desarrollo 2018-2022*, 195.

<sup>12</sup> "Frontera Agropecuaria en la Amazonia: La infraestructura de gran escala como motor de la ampliación," *Revista Semillas*, September 19, 2018, <https://semillas.org.co/es/revista/frontera-agropecuaria-en-la-amazonia-la-infraestructura-de-gran-escala-como-motor-de-la-ampliacion-en-funcion-de-los-mercados-2>.

<sup>13</sup> "Routes into the Forest," Amazonia at the Crossroads, June 5, 2019, <https://crossroads.amazoniasocioambiental.org/story/la-amazonia-transformada>.



Source: "MAAP #97: Deforestation Surge in the Colombian Amazon, 2018 Update," MAAP, February 12, 2019, <https://maaproject.org/2019/colombia-2018-4/>.

Deforestation in the Amazon cannot be circumscribed solely as an environmental phenomenon; it is the inevitable outcome of a confluence of security, economic, and governance factors. Colombia has structural challenges that enable the drivers of deforestation to thrive. These include weak governance, lax enforcement of the law, and official corruption. At the local level, weak state presence (leading to a lack of security, public services, and jobs) and the high economic vulnerability of the populations (often the poor and the socially excluded indigenous groups) provide fertile ground for criminality to thrive and the destruction of the forest to proceed unhindered. At the national level, the country has many laudable but ill-executed development plans. Moreover, national plans are often at cross-purposes with the plans and objectives of the subnational governments. For example, the National Development Plan highlights the abundance of alternatives to roadways and railways, recognizing the immense potential of multimodal transport, namely airways and inland waterways. Yet subnational governments still plan to construct or repave roads through the Amazon, which incites significant deforestation.

While these challenges are grim and real, Colombia is probably best positioned among the nine countries bordering the Amazon rainforest to lead the efforts to create a more sustainable future for the basin. First, Colombia has a strong cross-partisan political commitment and the legal framework to preserve the Amazon. As a sign of its international leadership, the country convened leaders of seven countries of the basin in the town of Leticia to increase commitments to preserving the rainforest and combating illicit activities.<sup>14</sup> Second, the national government has sufficient fiscal space that can be leveraged to redirect significant financial resources toward subnational governments and help them address the challenges and risks to the rainforest.<sup>15</sup> Third, the country has a highly capable bureaucracy that can continue pursuing greater regional cooperation efforts in the Amazon. Fourth, Colombia has strong military, political, and

<sup>14</sup> "Pacto de Leticia Por La Amazonía," Government of Colombia, September 6, 2019, <https://id.presidencia.gov.co/Documents/190906-Pacto-Leticia-Amazonia-Espanol.pdf>.

<sup>15</sup> Colombia has a moderate tax base vis-à-vis its neighbors (18.8 percent of GDP in 2017 versus Brazil: 32.3 percent; Peru: 13.2 percent, and Ecuador: 19.9 percent). Colombia's GDP per capita income (2018 data) of \$7,700 is higher than all the other Amazonian countries except Brazil.

financial backing from the United States: it is one of the largest U.S. aid recipients in the Western Hemisphere. The United States has committed more than \$11.2 billion in foreign assistance since 2000 to tackle security and development challenges in the country (much of it under Plan Colombia), committing more than \$418 million in 2019.<sup>16</sup> Part counter-narcotics program and part counterinsurgency program, Plan Colombia aimed to strengthen the Colombian military and other institutions in the war against the FARC, primarily through providing targeted aid and technological assistance. Colombia can use these resources strategically to supplement its own financial commitments to secure sustainability in the region.<sup>17</sup> Finally, Colombia is the only country that has a delimited frontier where agricultural economic activities can take place. In this regard, Colombia has a unique opportunity to preserve the Amazon as a strategic asset and develop it in a sustainable way.

The present case study lays out these challenges and opportunities for Colombia, exploring the connection between deforestation and security, governance, and infrastructure development and the implications for stabilization in Colombia. The study draws from a wide literature as well as expert interviews conducted in February and March 2020. Twenty organizations were consulted in Bogotá and Washington, D.C., including nongovernmental organizations, law enforcement, industry associations, consulting firms, and government bodies. The country case study informs a bigger report on Sustainable Infrastructure Development in the Amazon. This is a complex topic and touches many sensitivities within the Amazon basin countries. However, the authors hope that this case study generates greater interest and debate on the topic, helps change the discourse on the Amazon's future, and presents constructive and action-oriented ideas to have a more balanced development of the region going forward.

---

<sup>16</sup> June S. Beittel, *Colombia: Background and U.S. Relations*, CRS Report No. R43813 (Washington, DC: Congressional Research Service, November 2019), <https://fas.org/sgp/crs/row/R43813.pdf>.

<sup>17</sup> "Colombia Foreign Assistance," *ForeignAssistance.gov*, accessed June 8, 2020, <https://www.foreignassistance.gov/explore/country/Colombia>.

# Challenges in the Colombian Amazon

Colombia is a unitary presidential republic organized into 32 provinces (or departments) that collectively comprise 1,123 municipalities (plus the federal capital district of Bogotá). Eight of these departments are home to the Amazonian Basin biome.<sup>18</sup> Colombia hosts approximately 6 percent of the Amazon rainforest (an area approximately the size of Spain), which represents more than 44 percent of the country's territory.<sup>19</sup>

Despite the large geographical extension of the rainforest, Colombia is predominately an Andean country. Most of its cities, towns, infrastructure, and culture developed in the north half of the country and are based on the mountains and the coast. Colombians do not see their country as an “Amazonian country”; their mindset is based more on an Andean outlook, which carries social, economic, and political implications. The Andean economy is based on cattle ranching, agriculture, and trade. Since the peace agreement with the FARC was signed, migration from north to south has brought with it Andean customs, including cattle raising, that are not ideal for the Amazon.<sup>20</sup>



The Amazon region has unique economic and social characteristics that distinguish it from the rest of the country. Despite its vast coverage, the Amazon region remains sparsely inhabited by only 1.4 million people, representing 2.9 percent of the Colombian population, with a large presence of indigenous communities. However, the country's unclear rules for land titling lead to a high level of spontaneous and disorderly “colonization,” as outside interests force indigenous communities out of their territories and seize their land for commercial use.

Moreover, the Amazon's economic system is very inefficient and uncompetitive. It relies heavily on extensive use of the lands and exploitation of the natural resources,

<sup>18</sup> The Colombian Amazon biome spans eight political departments (or states): Amazonas, Caquetá, Putumayo, Guainía, Guaviare, Meta (South), Vaupés, and Vichada.

<sup>19</sup> Ricardo Gaviria, “El mundo mira a la Amazonia: ¿Y qué se hace en Colombia?,” La Fundación para la Conservación y el Desarrollo Sostenible (FCDS), August 23, 2019, <https://fcds.org.co/el-mundo-mira-a-la-amazonia-y-que-se-hace-en-colombia/>.

<sup>20</sup> Taran Volckhausen, “Land Grabbing, Cattle Ranching Ravage Colombian Amazon after FARC Demobilization,” Mongabay Environmental News, May 30, 2019, <https://news.mongabay.com/2019/05/land-grabbing-cattle-ranching-ravage-colombian-amazon-after-farc-demobilization/>.

which puts pressure on the forest ecosystem.<sup>21</sup> The Amazon economy represents just 1 percent of GDP of the country, driven by government services and agricultural activities (including cattle ranching, fishing, and the raising of livestock such as cattle, pigs, and poultry). Agriculture production includes corn, plantains, rice, sugar cane, yams, avocados, cassava, cacao, coca, pineapples, and other fruits. A 2014 OECD report found that agricultural activity has been responsible for more than 35 percent of the country's greenhouse gas emissions. For context, that number is five times the OECD country average of 7 percent.<sup>22</sup>

At the same time, a small but growing fraction of the economy indicates future and more sustainable trends. New economic activities such as ecotourism have emerged as profitable and sustainable alternatives. Tourism in the Amazonian region has had a surprising net-positive effect on the rainforest, to the extent that some people who once hunted for the pet trade have become tour guides and some ranchers have stopped cutting down trees to encourage more biodiversity. In recent years, departments such as Guainía (in the east, bordering Venezuela and Brazil) have also become hubs for ecotourism and have seen the near doubling of ecotourism since 2016.<sup>23</sup>

**TABLE 1: SOCIAL INDICATORS: COLOMBIA AVERAGE VERSUS THE AMAZON DEPARTMENTS**

INDICATOR	MIDDLE SCHOOL COVERAGE (%)	ILLITERACY (OVER 15 YEARS) (%)	INFANT MORTALITY*	WATER SUPPLY COVERAGE (%)	QUALITY HOUSING DEFICIT <sup>24</sup>
<b>Amazonas</b>	29.7	17.4	17.9	38.7	53.2
<b>Caquetá</b>	33.6	14	20.1	72.7	42.1
<b>Guainía</b>	8.7	29.2	41.1	21.9	74.7
<b>Guaviare</b>	30.4	17.9	36.7	45.3	58.5
<b>Meta</b>	45.0	14.4	22.5	79.0	23.0
<b>Putumayo</b>	37.2	15.5	18.7	51.7	63.0
<b>Vaupés</b>	13.1	27.6	47.3	35.0	40.3
<b>Vichada</b>	8.7	26.5	40.5	36.8	63.1
<b>National Average</b>	<b>39.8</b>	<b>23.0</b>	<b>16.8</b>	<b>86.4</b>	<b>23.8</b>

\*Deaths of children under one year of age, per thousand live births.

Source: Multiple sources used for this table. For middle school coverage, see Ministerio de Educación Nacional, "Estadísticas En Educación Básica Por Departamento," December 31, 2015, <https://www.datos.gov.co/Educaci-n/ESTADISTICAS-EN-EDUCACION-BASICA-POR-DEPARTAMENTO/ji8i-4anb>; for illiteracy, see "Censo Nacional Agropecuario; Cuarta Entrega de Resultados 2014," DANE, July 29, 2015, <https://www.dane.gov.co/files/CensoAgropecuario/entrega-definitiva/Boletin-4-Pobreza-y-educacion/4-Boletin.pdf>; for infant mortality, "Estadísticas Vitales Nacimientos y Defunciones," DANE, accessed June 8, 2020, <https://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion/nacimientos-y-defunciones#tasa-de-mortalidad-infantil>; for water supply coverage, see Gualteros Gerardo, "Cobertura Saneamiento Básico En Municipios de Colombia," ArcGIS StoryMaps, October 15, 2019, <https://storymaps.arcgis.com/stories/22886ec822944d24a61065fae61ed4f4>; and for housing, see "Déficit de Vivienda," DANE, accessed June 8, 2020, <https://www.dane.gov.co/index.php/estadisticas-por-tema/pobreza-y-condiciones-de-vida/deficit-de-vivienda>.

In terms of basic social development, the region lags behind the rest of the country (Table 1). Amazonas, one of the Amazonian departments in the southeast, remains one of the least developed parts of the

<sup>21</sup> "Modelo de Ordenamiento Territorial Regional Para La Amazonía Colombiana," Visión Amazonía, October 2019, 30, <https://visionamazonia.minambiente.gov.co/content/uploads/2020/02/Libro-MotraVF-pq.pdf>.

<sup>22</sup> Environmental Performance Reviews, *Colombia Highlights 2014* (Paris: OECD, 2014), <http://www.oecd.org/colombia/Colombia%20Highlights%20english%20web.pdf>.

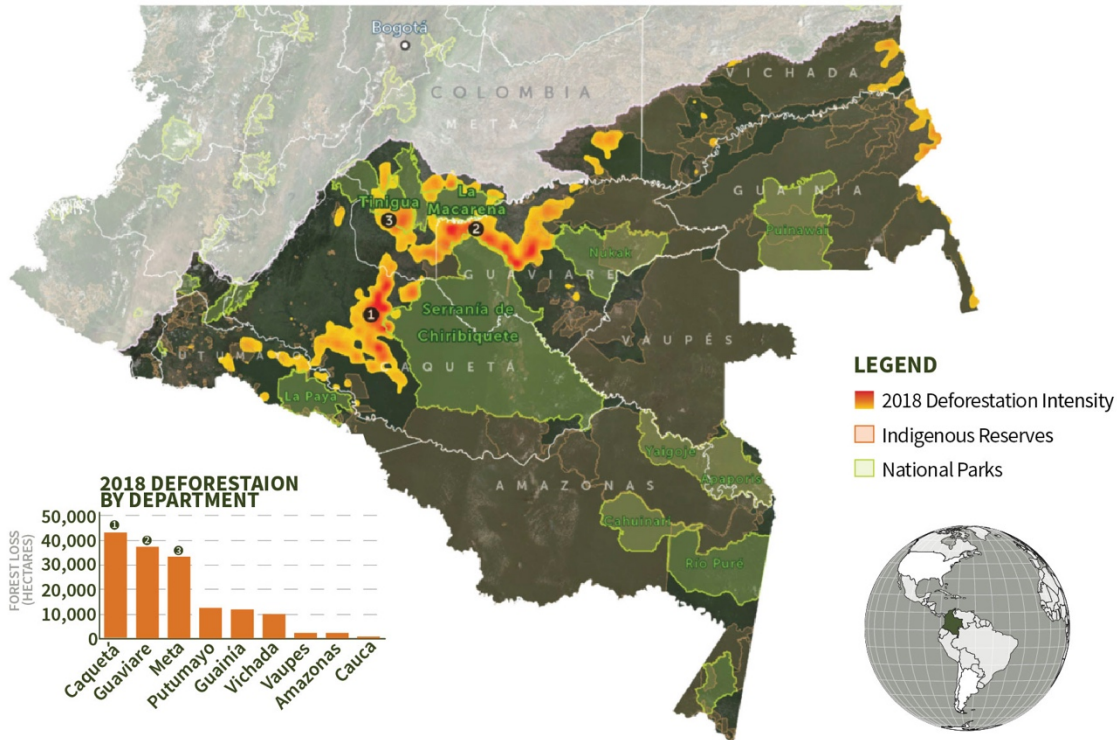
<sup>23</sup> Adelina Benson, "An Overview of Ecotourism in Colombia," Ecobnb (blog), February 4, 2019, <https://ecobnb.com/blog/2019/02/colombia-ecotourism-overview/>.

<sup>24</sup> This indicator defines the percentage of people living in inadequate housing, which combines housing quality factors such as overcrowding (more than four people per room), poor structure quality, and habitability problems (aqueduct, sewerage, and electricity, among others).



country, with fewer than 75,000 people living in the province.<sup>25</sup> The department of Putumayo—which has been the backdrop for violence in Colombia—is woefully underdeveloped and actively looking to invest in its infrastructure to facilitate economic growth and bind the peace process with the community.<sup>26</sup> Deforestation in the Colombian Amazon is an ongoing challenge driven by forces such as the illegal appropriation of land (land-grabbing), the development of road infrastructure, cattle ranching, illicit crop production, illegal logging, and illegal mining.<sup>27</sup> According to MAAP data, land-grabbing to convert the land into pasture or cattle ranching continues to be one of the main drivers of deforestation (see Map 3).

## DEFORESTATION HOTSPOTS, 2018



Source: Created by Amazon Conservation Association through its Monitoring of the Andean Amazon Project (MAAP) in collaboration with Amazon Conservation Team. "MAAP #97: Deforestation Surge in the Colombian Amazon, 2018 Update," MAAP, February 12, 2019, <https://maaproject.org/2019/colombia-2018-4/>.

<sup>25</sup> "Amazonas a Department of Colombia," Colombiainfo.org, accessed June 8, 2020, <https://www.colombiainfo.org/en-us/colombia/departments/amazonas.aspx>.

<sup>26</sup> Winifred Tate, "A Precarious Peace in Putumayo," NACLA, May 4, 2018, <https://nacla.org/news/2018/05/04/precarious-peace-putumayo>.

<sup>27</sup> Rodrigo Botero García, "Tendencia de deforestación en la Amazonia Colombiana," Semillas, April 2, 2018, <https://www.semillas.org.co/apc-aa-files/353467686e6667686b6c676668f16c6c/3-rodrigo-botero.pdf>; and "Challenges in Reducing Livestock Farming-Related Deforestation in Colombia – Recommendations for Colombia's New Government and the 2018 – 2022 National Development Plan," CDP and FNC, Policy Brief, November 2018, [https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/004/172/original/Policy\\_Brief\\_Colombia\\_Nov\\_18\\_EN.pdf?1551191835; Matt Piotrowski, Nearing the Tipping Point, Drivers of Deforestation in the Amazon Region \(Washington, DC: Dialogue Leadership For The Americas, May 2019\), <https://www.thedialogue.org/wp-content/uploads/2019/05/Nearing-the-Tipping-Point-for-website.pdf>. Estimates of deforestation due to land-grabbing vary, in large part due to definitional issues: some analyses consider land-grabbing as a composite term which includes related illicit activities, while other definitions consider land-grabbing as a separate occurrence from such illicit activities. As a result, the former definition tends to yield higher estimates of the percentage of deforestation attributable to land-grabbing, while the latter yields lower estimates; "MAAP #101: Deforestation Continues in Colombian Amazon \(2019\)," MAAP, June 10, 2019, \[https://maaproject.org/2019/chiribiquete\\\_2019/\]\(https://maaproject.org/2019/chiribiquete\_2019/\); and "MAAP #106: Deforestation Impacts 4 Protected Areas in the Colombian Amazon \(2019\)," MAAP, August 22, 2019, \[https://maaproject.org/2019/colombia\\\_2019/\]\(https://maaproject.org/2019/colombia\_2019/\).](https://6fefcbb86e61af1b2fc4-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/004/172/original/Policy_Brief_Colombia_Nov_18_EN.pdf?1551191835; Matt Piotrowski, Nearing the Tipping Point, Drivers of Deforestation in the Amazon Region (Washington, DC: Dialogue Leadership For The Americas, May 2019), https://www.thedialogue.org/wp-content/uploads/2019/05/Nearing-the-Tipping-Point-for-website.pdf)

## *Structural Challenges Enabling Deforestation*

Colombia's structural challenges contributing to deforestation in the Amazon, such as a weak or absent state and vulnerable communities, allow criminal groups to remain active and destabilize the rainforest and its communities. First, the state is weak or absent in many parts of the Amazon, leading to inadequate citizen security, public services, and formal employment. Many communities are socioeconomically vulnerable and face issues of poverty and informal employment while also receiving few basic services such as education, healthcare, and sanitation. As noted earlier, state ineffectiveness and societal vulnerabilities allow criminal groups to remain active and negatively impact the rainforest and the security of its communities. External factors such as the Venezuela crisis spill over to Colombia, with transnational criminal groups operating in the Amazon rainforest.<sup>28</sup>

A second challenge affecting the security and sustainability of the Amazon region relates to weak governance, including low institutional capacity to enforce laws and corruption. Although Colombia has a strong legal framework to protect the Amazon (see Annex A), implementing these laws remains incomplete, especially at the subnational level. These enforcement and implementation shortfalls make it easier for actors to evade the law, perpetuating the current trends. At the same time, Colombia also has an inadequate land titling system, and in the Amazon, land-grabbers among agricultural landowners and other groups take advantage of a weak land registry and engage in corrupt practices to secure land quickly and illegally deforest it.<sup>29</sup>

A third interrelated challenge is the current disconnect between the national government and its subnational counterparts in structuring development plans for the region, especially regarding infrastructure projects. This lack of coordination leads to poor project choices and wasted resources, ultimately affecting the sustainability of the region. Even though Colombia has a strong central government, local governments can find themselves out of sync with the national plan when it comes to infrastructure development. For example, contrary to the national government's vision, local governments (at the department level) are issuing plans to formalize previously illegal roads and incorporate them into the formal road network, which risks reinforcing and amplifying problems of deforestation and insecurity.<sup>30</sup> Adding to the lack of strategic coordination is the fact that many subnational governments in the Amazon grapple with low budgetary resources, limited skilled human resources, and high levels of corruption, all of which affect their capacity to plan and execute programs.

### **i) Insecurity and Weak State Presence**

A weak state presence in parts of the Amazon region is exacerbating existing security and sustainability challenges in the region. Starting in the 1960s, the Colombian government found itself unable to control portions of its own territory occupied by armed drug traffickers, guerillas, and other militant groups—

---

<sup>28</sup> Moises Rendon, Linnea Sandin, and Claudia Fernandez, "Illegal Mining in Venezuela: Death and Devastation in the Amazonas and Orinoco Regions," CSIS, *CSIS Briefs*, April 16, 2020, <https://www.csis.org/analysis/illegal-mining-venezuela-death-and-devastation-amazonas-and-orinoco-regions>.

<sup>29</sup> Simon Romero, "Where Is the Amazon Rainforest Vanishing? Not Just in Brazil," *New York Times*, August 30, 2019, <https://www.nytimes.com/2019/08/30/world/americas/amazon-rainforest.html>.

<sup>30</sup> "Routes into the Forest," Amazonia at the Crossroads.

including in its nearly 50-year war with the FARC.<sup>31</sup> Many FARC-controlled territories lacked tax coverage and had poor record keeping of land ownership, weak enforcement of property rights, and no transparent judicial system.<sup>32</sup> Those living near or within FARC-occupied territory saw the guerrilla group as a legitimate alternative to the weak Colombian state, and FARC activities became a part of their livelihoods. FARC leaders had previously paid farmers to grow coca, which the FARC would then sell to Mexican cartels to finance their guerilla operations.<sup>33</sup>

While actively engaged in guerilla warfare, the FARC based itself deep in the rainforests and “protected” national parks by strictly enforcing logging limits to enjoy the benefit of the forest cover. During this period, *campesinos* (i.e., farmers) and others were forcibly kept out of the rainforest by the threat of violence. During its peak, the FARC used its cover for coca cultivation and illegal gold mining, while rivers in the Amazon, such as the Apaporis and the Caquetá, became critical to the trafficking of arms, drugs, and humans between Brazil and Venezuela.<sup>34</sup>

After the 2016 peace deal, the dramatic drop in guerilla warfare in the Amazon rainforest made resource exploitation in the region more attractive.<sup>35</sup> With the peace deal in place, values of previously inaccessible areas of forestland have skyrocketed by up to 300 percent, which has incentivized people and businesses to move to the previously untouched land.<sup>36</sup> The country’s weak land registry and corruption has benefitted land-grabbers, who quickly secured land. Additionally, industries including logging and cattle-raising have moved into the region, capitalizing on the armed groups that remain in the forest and corrupt accomplices within government to clear massive swaths of land with little to no oversight.<sup>37</sup>

Moreover, the vacuum left behind by the disarmament of the FARC and the inability of the Colombian state to fully secure the region has incentivized other armed groups to illegally occupy the forest. Residents now report that dissident groups splintered off from the FARC maintain a strong presence in remote parts of the territory. The dissident groups have reportedly promoted, or have at least been complicit in, the current wave of deforestation through unauthorized logging and use the land to cultivate crops for drugs, mine gold, and conduct other unregulated and illicit economic activities. The newcomers into the forest have clashed with indigenous populations, who are protesting the contamination of their water sources and their forcible removal from their lands, resulting in violence and death (Box 1). These security issues can be attributed to a lack of government foresight in anticipating the need for environmental safeguards within the peace deal or preparing for the impact the removal of the FARC would have on the local people.

---

<sup>31</sup> International Center for Transitional Justice, *An Overview of Conflict in Colombia* (New York: International Center for Transitional Justice, 2009), <https://www.ictj.org/sites/default/files/ICTJ-Colombia-Conflict-Facts-2009-English.pdf>.

<sup>32</sup> Anastasia Moloney, “Colombia’s Push for Land Titles Brings Hope for Farmers amid Fragile Peace,” Reuters, June 4, 2019, <https://www.reuters.com/article/us-colombia-landrights-farming-idUSKCN1T5164>.

<sup>33</sup> Jonathan Watts, “Battle for the Mother Land: Indigenous People of Colombia Fighting for Their Lands,” *Guardian*, October 28, 2017, <https://www.theguardian.com/environment/2017/oct/28/nasa-colombia-cauca-valley-battle-mother-land>; and Joe Shute, “Race to Save the Rainforest: How Cattle Ranchers Are Destroying the Amazon,” *Telegraph*, August 17, 2019, <https://www.telegraph.co.uk/news/amazon-deforestation-in-colombia/>.

<sup>34</sup> Maria Fernanda Lizcano, “Gold, Wood, Religion: Threats to Colombia’s Isolated Indigenous Peoples,” *Mongabay Environmental News*, June 3, 2019, <https://news.mongabay.com/2019/06/gold-wood-religion-threats-to-colombias-isolated-indigenous-peoples/>.

<sup>35</sup> Piotrowski, *Nearing the Tipping Point, Drivers of Deforestation in the Amazon Region*.

<sup>36</sup> Volckhausen, “Land Grabbing, Cattle Ranching Ravage Colombian Amazon after FARC Demobilization.”

<sup>37</sup> Maria Fernanda Lizcano, “Criminal Mafias Take over Colombian Forests,” *Mongabay Environmental News*, September 7, 2018, <https://news.mongabay.com/2018/09/criminal-mafias-take-over-colombian-forests/>.

### Box 1: Social Clashes and Instability in the Colombian Amazon

More than 1.5 million of Colombian inhabitants (3.4 percent of its population) are recognized as indigenous people, 78.6 percent of whom live in rural areas.<sup>38</sup> The Colombian government has recognized 26 million hectares of land as protected autonomous reserves for the indigenous peoples to inhabit, and approximately 94 percent of those reserves (home to 62 indigenous communities) come under Amazon cover.<sup>39</sup> The FARC, which used the forests heavily for its guerilla warfare tactics, maintained a cordial but distant relationship with the indigenous communities. The eventual opening up of the rainforests for civilian access has triggered a series of violent incidents that alarmed the forests' indigenous inhabitants and threatened their culture and way of life. These incidents establish a pattern of activities that undermine the safety and sustainability of the Amazonian ecosystem and violate the rights of the indigenous people inhabiting these forests.<sup>40</sup>

The indigenous reserves are attractive for illegal mining groups seeking low-cost access to commodities and natural resources. These groups have initiated violent clashes with the indigenous populations who see it as their responsibility to protect and preserve the Amazon. According to the Colombian think tank *Instituto de Estudios para el Desarrollo y la Paz* (INDEPAZ), approximately 734 indigenous activists were killed between January 2016 and June 2019, while more than 5,500 people were forced to flee their homes to escape violence.<sup>41</sup> Departments with significant indigenous populations and forest cover such as Choco, La Guajira, and Amazonas have seen spikes in economic activity, which has resulted in the displacement of the indigenous inhabitants, adding to the violence and instability in the basin.<sup>42</sup> Additionally, illegal gold miners use mercury to separate gold from sediment, which pollutes the groundwater and contaminates the fish and plants within the indigenous population's diet. Studies have found high incidence of mercury in communities, and children exhibited mental impairments as a result.<sup>43</sup>

There have been long-running campaigns of harassment and violence against indigenous communities designed to drive them off their land.<sup>44</sup> The 1991 Colombian constitution enumerates "inalienable and inviolable control of reserve lands in perpetuity" for indigenous people. However, the absence of a clear and effective land titling and deed transfer system has left the indigenous people vulnerable and devoid of property rights that can be enforced in a court of law. Consequently, they are often labeled as illegal occupants of their properties and subjected to arbitrary arrest. One study found that the Colombian government has granted titles for oil exploration and drilling in 81 indigenous reservations in the Amazon

---

<sup>38</sup> "Indigenous World 2020: Colombia," IWGIA, accessed June 8, 2020, <https://iwgia.org/en/colombia>.

<sup>39</sup> "Contribution of Indigenous Peoples (IPs) in the Colombian Amazon to the Accomplishment of SDG 13 and SDG 15," United Nations Sustainable Development Goals Partnership Platform, accessed June 8, 2020, <https://sustainabledevelopment.un.org/partnership/?p=30780>.

<sup>40</sup> David Nathaniel Berger, *The Indigenous World 2019* (Copenhagen: IWGIA, April 2019), [https://www.iwgia.org/images/documents/indigenous-world/IndigenousWorld2019\\_UK.pdf](https://www.iwgia.org/images/documents/indigenous-world/IndigenousWorld2019_UK.pdf).

<sup>41</sup> Luis Jaime Acosta, "Murder Of Hundreds Of Colombian Activists Casts Shadow Over Peace Process," Reuters, August 25, 2019, <https://www.reuters.com/article/us-colombia-peace-feature/murder-of-hundreds-of-colombian-activists-casts-shadow-over-peace-process-idUSKCN1VF0IK>; and "Religious and Indigenous Leaders Join Forces on Initiative to End Tropical Deforestation in Colombia," UN Environment Programme (UNEP), November 23, 2018, <http://www.unenvironment.org/zh-hans/node/23969>.

<sup>42</sup> Berger, *The Indigenous World 2019*; and Anastasia Moloney, "Colombia's Indigenous Tribes Share Secrets to Safeguard Amazon Forest," Reuters, September 4, 2019, <https://www.reuters.com/article/us-colombia-forest-politics-indigenous-idUSKCN1VP1WU>.

<sup>43</sup> Livia Wagner, *Organized Crime and Illegally Mined Gold in Latin America* (Geneva, Switzerland: Global Initiative against Transnational Organized Crime, 2016), [https://arcominero.infoamazonia.org/GIATOC-OC\\_Illegally-Mined-Gold-in-Latin-America-3c3f978eef80083bdd8780d7c5a21f1e.pdf](https://arcominero.infoamazonia.org/GIATOC-OC_Illegally-Mined-Gold-in-Latin-America-3c3f978eef80083bdd8780d7c5a21f1e.pdf); and Fernanda Lizcano, "Gold, Wood, Religion: Threats to Colombia's Isolated Indigenous Peoples."

<sup>44</sup> Vicky Tauli-Corpuz, "Indigenous People Are Being Killed for Protecting Their Land. But We Will Not Be Silent." *Washington Post*, August 2, 2019, <https://www.washingtonpost.com/opinions/2019/08/02/indigenous-people-are-being-killed-protecting-their-land-we-will-not-be-silent/>.

region that were ostensibly protected from such activity.<sup>45</sup> Still, the Colombian government has made honest attempts to provide protection to the indigenous people. The Colombian constitutional court, for instance, ruled in 2012 that the Colombian military must dismantle a training base built on indigenous land in Guaviare province.<sup>46</sup> Another example is the 2019 launch of a military offensive by the government to hunt down the FARC gunmen responsible for the massacre of five indigenous leaders in Cauca.<sup>47</sup>

From a security perspective, Colombia's problems can be traced to two activities: cocaine production and illegal mining. Both practices lead to deforestation (Figure 2).<sup>48</sup> Collectively, the eight Amazonian departments in Colombia have witnessed an almost twofold spike in coca cultivation, nearly doubling the cultivated area at the expense of forest preservation.<sup>49</sup> Departments in the Colombian Amazon such as Caquetá, Guaviare, and Putumayo are hubs for coca cultivation—the critical ingredient for cocaine production—impacting both the rainforest and the people who call it home. Farmers, who lack other opportunities to prosper and develop economically, rely on the illicit sales of coca plants to drug gangs and cocaine producers, who offer them substantial compensation.<sup>50</sup> Drug cartels have undermined the already weak administrative state to sustain their businesses, with destructive impacts on the rainforest. In the Meta department, indigenous groups such as the Jiw community have come under attack as drug cartels and armed groups are taking over their territory to grow coca (as well as water-intensive oil palms) and raise cattle, all of which exacerbates deforestation.<sup>51</sup>

---

<sup>45</sup> Luke Jacobs, "How Disputed Oil Deals Push Native Colombian Peoples Closer to Extinction," Colombia Reports, June 29, 2019, <https://colombiareports.com/how-disputed-oil-deals-push-native-colombian-peoples-closer-to-extinction/>.

<sup>46</sup> "Colombia to Challenge Tribal Case," BBC News, August 3, 2012, <https://www.bbc.com/news/world-latin-america-19105432>.

<sup>47</sup> Joe Parkin Daniels, "Colombia Launches Military Offensive after Killing of Five Indigenous Leaders," *Guardian*, October 30, 2019, <https://www.theguardian.com/world/2019/oct/30/colombia-launches-military-offensive-after-killing-of-five-indigenous-leaders>; and Julia Symmes Cobb, "Five Colombian Indigenous Guards Killed, Possibly by Rebel Dissidents, Military Says," Reuters, October 30, 2019, <https://www.reuters.com/article/us-colombia-rebels-idUSKBN1X903F>.

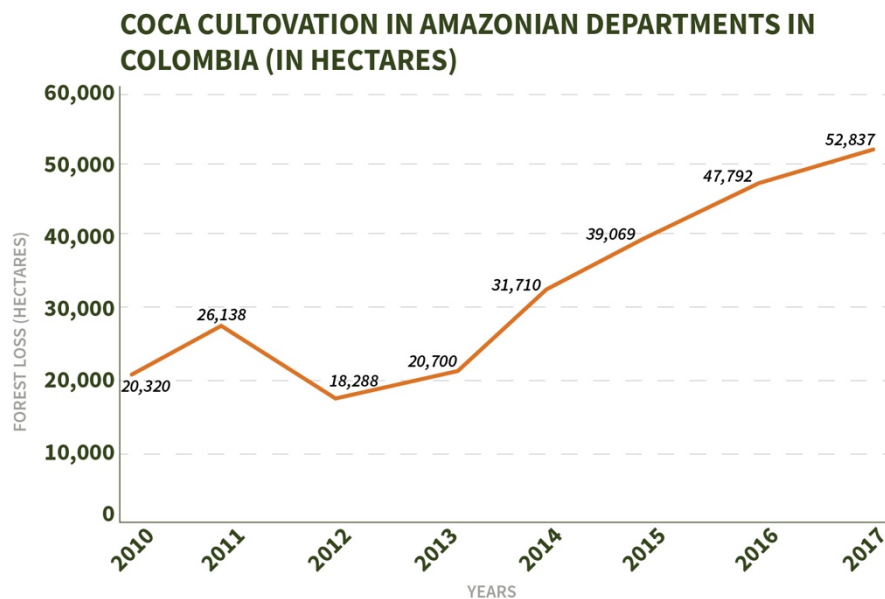
<sup>48</sup> Rodrigo Botero García and A. Rojas, "Transformación De La Amazonia. Repercusiones Del Efecto Sinérgico Entre Políticas Erráticas E Ingovernabilidad," *Revista Colombia Amazónica*, Nueva Época, no. 11 (2018), [http://fcds.org.co/site/wp-content/uploads/2019/06/Revista\\_Amazonica\\_11\\_26-05-2019-web-pa%CC%81ginas-11-34.pdf](http://fcds.org.co/site/wp-content/uploads/2019/06/Revista_Amazonica_11_26-05-2019-web-pa%CC%81ginas-11-34.pdf).

<sup>49</sup> UNODC, *Monitoreo de territorios afectados por cultivos ilícitos 2017* (Vienna: 2018), [https://www.unodc.org/documents/crop-monitoring/Colombia/Colombia\\_Monitoreo\\_territorios\\_afectados\\_cultivos\\_ilicitos\\_2017\\_Resumen.pdf](https://www.unodc.org/documents/crop-monitoring/Colombia/Colombia_Monitoreo_territorios_afectados_cultivos_ilicitos_2017_Resumen.pdf); Volckhausen, "Land Grabbing, Cattle Ranching Ravage Colombian Amazon after FARC Demobilization"; Sibylla Brodzinsky, "Deforestation Soars in Colombia after Farc Rebels' Demobilization," *Guardian*, July 11, 2017, <https://www.theguardian.com/world/2017/jul/11/colombia-deforestation-farc>; and Naomi Larsson, "The Unintended Tragedy of Colombia's Peace Deal," *HuffPost*, July 30, 2018, [https://www.huffpost.com/entry/colombia-rainforest-deforestation-lawsuit\\_n\\_5b58a5c3e4b0de86f492ab66](https://www.huffpost.com/entry/colombia-rainforest-deforestation-lawsuit_n_5b58a5c3e4b0de86f492ab66).

<sup>50</sup> Camilo Mejia and Steven Cohen, "Ditching Coca for Other Crops, Colombia's Farmers Ask: Where Do We Sell?," *Christian Science Monitor*, August 22, 2017, <https://www.csmonitor.com/World/Americas/2017/0822/Ditching-coca-for-other-crops-Colombia-s-farmers-ask-Where-do-we-sell>.

<sup>51</sup> Maria Fernanda Lizcano, "Oil Palm, Cattle and Coca Take a Toll on Colombia's Indigenous Jiw," *Mongabay Environmental News*, September 24, 2019, <https://news.mongabay.com/2019/09/oil-palm-cattle-and-coca-take-a-toll-on-colombias-indigenous-jiw/>.





Source: Sistema Integrado de Monitoreo de Cultivos Ilícitos (SIMCI) and United Nations Office on Drugs and Crime (UNODC), Colombia: Monitoreo de territorios afectados por cultivos ilícitos 2017 (Bogotá: SIMCI-UNODC, September 2018), [https://www.unodc.org/documents/crop-monitoring/Colombia/Colombia\\_Monitoreo\\_territorios\\_afectados\\_cultivos\\_ilicitos\\_2017\\_Resumen.pdf](https://www.unodc.org/documents/crop-monitoring/Colombia/Colombia_Monitoreo_territorios_afectados_cultivos_ilicitos_2017_Resumen.pdf).

Moreover, since the early-1990s, Colombia has lost more than 6 million hectares of forest, largely owing to illegal mining.<sup>52</sup> The NGO Amazon Geo-Referenced Socio-Environmental Information Network (RAISG) has characterized illegal gold mining as an “epidemic” in the Amazon rainforest, “destroying naturally protected areas and threatening indigenous territories.”<sup>53</sup> More than 80 percent of all the gold mined in Colombia is estimated to be illegally produced.<sup>54</sup> A 2018 UNODC report

found that 14 of the 32 departments were affected by the exploitation of alluvial gold, with the official estimates putting unauthorized gold production at 61,805 kilograms (approximately 136,257 pounds), though the actual numbers are expected to be much higher.<sup>55</sup> Gold is also smuggled into Colombia from neighboring Venezuela by armed non-state actors who use riverboats, private airplanes, trucks, or Venezuelan refugees working as “mulas.” Once in Colombia, the gold is “cleaned,” effectively making it legal gold before being exported from the country.<sup>56</sup>

Between 2012 and 2015, illegal mining became more lucrative in terms of revenue than coca cultivation and drug trafficking. Illegal mining doubled between 2012 and 2013 and has, in some cases, replaced coca cultivation as an economic activity given its ability to generate higher earnings per capita (\$6 per day for coca cultivation compared to \$13 per day in mining). The UN World Drug Report released that year 2015 estimated that illegal miners were earning between \$1.9 and \$2.6 billion annually—twice the earnings of drug traffickers dealing with cocaine and heroin.<sup>57</sup>

<sup>52</sup> Ebus Bram, “Crackdowns on Illegal Mining in Colombian Amazon Not Enough,” Mongabay Environmental News, October 25, 2017, <https://news.mongabay.com/2017/10/crackdowns-on-illegal-mining-in-the-colombian-amazon-alone-cant-solve-problem/>.

<sup>53</sup> Kimberley Brown, “Illegal Mining in the Amazon ‘Not Comparable to Any Other Period of Its History,’” Mongabay Environmental News, December 20, 2018, <https://news.mongabay.com/2018/12/illegal-mining-in-the-amazon-not-comparable-to-any-other-period-of-its-history/>.

<sup>54</sup> Livia Wagner, “Organized Crime and Illegally Mined Gold in Latin America,” Global Initiative against Transnational Organized Crime, April 2016, <https://globalinitiative.net/organized-crime-and-illegally-mined-gold-in-latin-america/>; and Marcello Rossi, “Illegal Gold Mining Has Supplanted Cocaine Trafficking as Latin America’s Criminal Endeavor of Choice,” Quartz, December 21, 2016, <https://qz.com/867104/illegal-gold-mining-has-supplanted-cocaine-trafficking-as-latin-americas-criminal-endeavor-of-choice/>.

<sup>55</sup> UNODC and Government of Colombia, *Alluvial Gold Exploitation: Evidences from Remote Sensing 2016* (Vienna: May 2018), [https://www.unodc.org/documents/publications/Evoa\\_2016\\_in\\_1.pdf](https://www.unodc.org/documents/publications/Evoa_2016_in_1.pdf).

<sup>56</sup> Frédéric Massé and Juan Munevar, “Where Does Colombian Gold Go?,” OECD, 2018, <http://mneguidelines.oecd.org/Where-does-Colombian-Gold-Go-EN.pdf>; <https://www.csis.org/analysis/illegal-mining-venezuela-death-and-devastation-amazonas-and-orinoco-regions>.

<sup>57</sup> UNODC, *World Drug Report 2015* (Vienna: , May 2015), [https://www.unodc.org/documents/wdr2015/World\\_Drug\\_Report\\_2015.pdf](https://www.unodc.org/documents/wdr2015/World_Drug_Report_2015.pdf).

The national government has been addressing the insecurity problems these illicit activities create and the deforestation of the Amazon through an “integral” or multidimensional approach aimed at tackling the root causes of insecurity. This approach goes beyond providing military interventions to focus on a coordinated response among levels of government and sectors, working with communities to improve livelihoods and environmental preservation. Since 2016, plans and programs such as the National Development Plan, National Defense Policy, and *Zonas Futuro* as well as high-level bodies such as the Presidential National Security Council (*Consejería Presidencial para la Seguridad Nacional*) have been established.<sup>58</sup> The *Consejería Presidencial para la Seguridad* provides analysis, recommendations, and monitoring of national security public policy, including topics of citizen security and cyber defense, among others.<sup>59</sup>

One of the earliest programs was a 2016 crop-replacement plan (*Programa Nacional Integral de Sustitución de Cultivos Ilícitos*, or PNIS), in which both the FARC leaders and the Colombian government agreed to eradicate coca and marijuana crops.<sup>60</sup> The crop-replacement plan was instituted to compensate for the loss of income from illicit crop production, where the government would reward farmers for switching from drugs to legal cash crops such as coffee or citrus.<sup>61</sup> Despite a rocky start wherein the program was criticized for delays in providing participating families with payment, by September 2019, 88 percent of families who participated in the program had received their subsidies, with more than 35,000 hectares verified by UNODC with a 95 percent compliance rate.<sup>62</sup>

In 2017, the Colombian government launched *Programas de Desarrollo con Enfoque Territorial* (PDET). PDET aims to develop the rural areas most affected by armed conflict, poverty, and illicit economies through mobilizing private and public investment to improve the delivery of public services. PDET regions include 16 subregions and 170 municipalities; these regions include the Amazonian regions of Caqueta, Guaviare, Meta, and Putumayo.<sup>63</sup> While descriptions of the plans for the regional developments have been vague, one theme seems to be increasing access to potable water and sanitation. One such example is a \$39.3 million plan to expand tertiary roads, aqueducts, and sewerage to benefit 10 regions and 80,000 people.<sup>64</sup>

At the same time, the *Zonas Futuro* program focuses on territories most affected by violence, criminal activity, and poverty. Launched in 2019, the program aims to “achieve institutional control, guarantee citizens’ rights, disrupt illicit economies, and preserve and defend the environment.”<sup>65</sup> *Zonas Futuro*

---

<sup>58</sup> “Departamento Administrativo De La Presidencia De La República, Organigrama,” Presidencia de la República de Colombia, accessed June 8, 2020, <https://dapre.presidencia.gov.co/dapre/conozca-el-dapre/organigrama>.

<sup>59</sup> Ibid.

<sup>60</sup> Janina Staguhn, Erol Yayboke, and Melissa Dalton, “Colombia at a Stabilization Crossroads,” CSIS, *CSIS Briefs*, May 5, 2020, <https://www.csis.org/analysis/colombia-stabilization-crossroads>.

<sup>61</sup> Jonathan Watts, “Battle for the Mother Land: Indigenous People of Colombia Fighting for Their Lands,” *Guardian*, October 28, 2017, <https://www.theguardian.com/environment/2017/oct/28/nasa-colombia-cauca-valley-battle-mother-land>.

<sup>62</sup> Mariana Palau, “Swapping Cocaine for Peace,” *Foreign Policy*, December 28, 2018, <https://foreignpolicy.com/2018/12/28/swapping-cocaine-for-peace-colombia-drugs-farc/>; and UNODC, *Informe No. 19: Programa Nacional Integral de Sustitución de Cultivos Ilícitos - PNIS* (Vienna: February 2020), [https://www.unodc.org/documents/colombia/2020/Febrero/INFORME\\_EJECUTIVO\\_PNIS\\_No.\\_19.pdf](https://www.unodc.org/documents/colombia/2020/Febrero/INFORME_EJECUTIVO_PNIS_No._19.pdf).

<sup>63</sup> “¿Qué Es Un PDET?,” Alta Consejería para el Posconflicto, July 18, 2017, <http://especiales.presidencia.gov.co/Documents/20170718-pdet/que-son-pdet.html#niveles-pdet>.

<sup>64</sup> “Función Pública se suma al Pacto por los PDET y avanza en el fortalecimiento de la gestión pública para la paz,” Función Pública, October 30, 2019, <https://www.funcionpublica.gov.co/-/funci-c3-b3n-p-c3-bablica-se-suma-al-pacto-por-los-pdet-y-avanza-en-el-fortalecimiento-de-la-gesti-c3-b3n-p-c3-bablica-para-la-paz-c2-a0>.

<sup>65</sup> Nariño Tumaco, “En Tumaco, El Presidente Duque Lanzó Zonas Futuro, Estrategia Integral Para Impulsar El Desarrollo En Los Territorios Más Afectados Por La Violencia Y La Pobreza,” Presidencia de la República, August 8, 2019, <https://id.presidencia.gov.co/Paginas/prensa/2019/190808-Tumaco-Presidente-Duque-lanzo-Zonas-Futuro-estrategia-integral-impulsar-desarrollo-territorios-afectados-violencia.aspx>.

includes seven focus areas, the largest of which is dedicated specifically to the Chiribiquete Zone, Colombia's largest national park located in the heart of the Amazon and a UNESCO World Heritage Site.<sup>66</sup>

A third strategy called "Operation Artemisa" aims to utilize the Colombian military to combat deforestation, illegal mining, and narcotics trafficking. Artemisa mobilizes 22,000 members of the military for protection efforts and also involves local authorities and judicial systems to punish the actors committing illegal deforestation.<sup>67</sup> Artemisa has conducted 244 operations in Putumayo, Caquetá, and Guaviare, as well as in protected areas.<sup>68</sup> In its first year, Artemisa successfully secured 136,000 hectares of tropical forest, arrested and charged more than 120 people, and decommissioned armed vehicles and machinery.<sup>69</sup> While the program originally focused on Parque Nacional Chiribiquete, the Area de Manejo Especial de la Macarena (AMEN), and three national parks (Picachos, Macarena, and Tinigua), the government now plans to extend Artemisa to further forest-dense regions of Colombia.<sup>70</sup> In February 2020, the Ministry of Defense announced a new Environmental Protection Task Force, which will build from the success of Artemisa in order to protect biodiversity and natural resources.<sup>71</sup>

## ii) Weak Governance

A second interrelated challenge affecting the security and development of the Amazon region is weak governance, including pervasive corruption and low institutional capacity to enforce laws. Although Colombia has a strong legal framework to protect the Amazon and has developed national plans for more sustainable use of the region, implementing these laws and policies remains incomplete, especially at the subnational level. These enforcement and implementation shortfalls make it easier for actors to evade the law, perpetuating the current trends.

Although Colombia is one of the more affluent countries in Latin America, the Colombian state has significant institutional capacity bottlenecks and enforcement challenges that weaken the rule of law in the country.<sup>72</sup> Per the *2019 Rule of Law Index*, Colombia is one of the few upper-middle-income countries that seriously lacks a strong commitment to the rule of law. It ranks 27 out of the 38 upper-middle-income countries, doing just better than China and Russia.<sup>73</sup> International and bilateral donors observe that one of the biggest challenges of enforcing the laws on the books is that the state is often unable to control certain parts of the country, and beyond this, it is unable to provide an alternative to those engaged in informal economic activities.

---

<sup>66</sup> "Acelerrarán implementación de Zonas Futuro a punta de consejeros presidenciales," *El Espectador*, January 29, 2020, <https://www.elespectador.com/noticias/politica/aceleraran-implementacion-de-zonas-futuro-punta-de-consejeros-presidenciales-articulo-902002>.

<sup>67</sup> Richard Emblin, "Colombia's Eco-Warrior 'Artemisa' Combats Deforestation in Nation's Parks," *The City Paper Bogotá*, September 11, 2019, <https://thecitypaperbogota.com/news/colombias-eco-warrior-artemisa-to-combats-deforestation/22721>.

<sup>68</sup> "Gobierno Nacional avanza en la conformación de la Fuerza de Tarea de Protección Ambiental para proteger la biodiversidad y los recursos naturales," Presidencia de la República, February 2, 2019, <https://id.presidencia.gov.co:443/Paginas/prensa/2020/Gobierno-Nacional-avanza-en-conformacion-Fuerza-de-Tarea-de-Proteccion-Ambiental-para-proteger-biodiversidad-recursos-200224.aspx>.

<sup>69</sup> Richard Emblin, "Colombia's Eco-Warrior 'Artemisa' Combats Deforestation in Nation's Parks."

<sup>70</sup> Antonio José Paz Cardona, "¿Podrá la 'Operación Artemisa' frenar la deforestación en Colombia?," *Mongabay Environmental News*, May 21, 2019, <https://es.mongabay.com/2019/05/podra-la-operacion-artemisa-frenar-la-deforestacion-en-colombia/>.

<sup>71</sup> "Gobierno Nacional avanza en la conformación de la Fuerza de Tarea de Protección Ambiental para proteger la biodiversidad y los recursos naturales," Presidencia de la República.

<sup>72</sup> "GDP per Capita (Current US\$) – Colombia," World Bank, accessed June 8, 2020, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CO>; and Marcela Restrepo Hung et al., *Informe sobre Los Avances en Lucha contra La Corrupcion, la Transparencia en Colombia: Corporación Transparencia por Colombia* (Berlin: AgciChile, CSIS, and AUCI), [https://csis-prod.s3.amazonaws.com/s3fs-public/Colombia\\_Transparency\\_Assessment\\_Report.pdf](https://csis-prod.s3.amazonaws.com/s3fs-public/Colombia_Transparency_Assessment_Report.pdf).

<sup>73</sup> William H. Neukom, *Rule of Law Index 2019* (Washington, DC: World Justice Project, 2019), <https://worldjusticeproject.org/sites/default/files/documents/ROLI-2019-Reduced.pdf>.

Moreover, systemic corruption has been a problem for decades and has cost the country several years of peace, tranquility, and development. The 2019 *Corruption Perceptions Index* ranks Colombia 99 out of a total of 180 countries, putting it behind Burkina Faso, China, and Cuba.<sup>74</sup> A National Resource Governance Institute report found that environmental protection had moderate to high risk of corruption for businesses in Colombia. While Law 734 of 2002 mandates that a public servant must recuse oneself from “acting in a case where he has a particular interest,” the lack of robust institutional checks on public officials in charge of carrying out ecological protection duties creates opportunities for the officials to indulge in corrupt and unethical practices.<sup>75</sup> This in turn makes them susceptible to receiving financial kickbacks in return for acting favorably for vested commercial interests. These officials are not required by law to make their interests public in a disclosure. Separately, mining groups that circumvent regulatory requirements to undertake commercial activities on public lands and in protected areas are reported as one of the biggest abusers of these corruption fault lines. Moreover, these illegal gold mining groups have reportedly bribed officials to ensure favorable title deals and secure other state benefits.<sup>76</sup>

Colombia also has an inadequate land titling system and weak territorial governance. Despite a 2018 ruling by the Colombian supreme court asserting the rights of the Amazon rainforest to be protected, conserved, maintained, and restored by the Colombian government, inadequate land titling in Colombia continues to enable deforestation through illegal land-grabbing and speculation.<sup>77</sup> Land hoarding occurs when an armed group systemically seizes control of a protected or forested area. For example, some of the remaining members of the FARC who continue to operate intend to distribute national parkland illegally. One of the parks in question, Tinigua National Natural Park, lost nearly 13,890 acres of protected land in the first third of 2018 alone. While addressing the problem of land-grabbing was included in the peace deal with the FARC, the section lacked a detailed strategy for addressing the problem.<sup>78</sup>

In June 2018, Colombia defined the country’s agricultural border into law, which includes 40,075,960 hectares (or 35 percent of the continental territory) that are demarcated for agricultural, livestock, forestry, and aquaculture and fishing activities. Within the “agricultural frontier,” only 35 percent of the land is designated for cultivation. The remaining 65 percent of the territory is dedicated to natural forests (42 percent) and conservation areas (23 percent) such as national parks, and flora and fauna sanctuaries.<sup>79</sup> Despite this ruling, enforcement remains weak since the agencies responsible for controlling and monitoring the issue (the local environmental authorities and the National Natural Park System) have insufficient personnel and inadequate budget and technical capacity to confront lawbreakers. Meanwhile, the agency principally responsible for administering land acquisition and preventing illegal seizures

---

<sup>74</sup> Transparency International, *Corruption Perceptions Index 2019* (Berlin: 2020), <https://www.transparency.org/en/cpi/2019/results>.

<sup>75</sup> IEMP, *Código Disciplinario Único, Ley 734 de 2002: Con Notas de Actualización del Estatus Anticorrupción Ley 1474 de 2011* (Bogotá, Colombia: IEMP, June 2012), <https://www.procuraduria.gov.co/relatoria/media/file/CODIGO%20DISCIPLINARIO%20UNICO.pdf>.

<sup>76</sup> “Colombia Corruption Report,” GAN Integrity, accessed June 8, 2020, <https://www.ganintegrity.com/portal/country-profiles/colombia/>.

<sup>77</sup> Germán Gómez Rojas, “Corte Suprema ordena protección inmediata de la Amazonía Colombiana,” Corte Suprema de Justicia, April 5, 2018, <http://www.cortesuprema.gov.co/corte/index.php/2018/04/05/corte-suprema-ordena-proteccion-inmediata-de-la-amazonia-colombiana/>; and Rodrigo Botero, “La especulación es la nueva economía de la deforestación,” La Silla Llena, July 1, 2019, <https://lasillavacia.com/silla-llena/red-social/la-especulacion-la-nueva-economia-de-la-deforestacion-71181>.

<sup>78</sup> Natalie Arenas, “Land Hoarding: What Colombia’s New Administration Has Inherited,” Mongabay Environmental News, September 10, 2018, <https://news.mongabay.com/2018/09/land-hoarding-what-colombias-new-administration-has-inherited/>; and Rodrigo Botero, “Parques Sin Guardianes, Un Análisis de Fondo,” *Semana*, April 13, 2020, <https://sostenibilidad.semana.com/opinion/articulo/parques-sin-guardianes-un-analisis-de-fondo/49906>.

<sup>79</sup> Government of Colombia, “Frontera Agrícola Nacional: La Cancha Del Sector Agropecuario Para El Desarrollo Rural Sostenible,” Ministry of Agriculture, June 21, 2018, <https://www.minagricultura.gov.co/noticias/Paginas/-Frontera-agr%C3%ADcola-nacional-la-cancha-del-sector-agropecuario-para-el-desarrollo-rural-sostenible.aspx>; and Tatiana Pardo Ibarra, “La pata floja de la frontera agrícola en Colombia,” *El Tiempo*, August 3, 2018, <https://www.eltiempo.com/vida/medio-ambiente/las-dudas-con-la-frontera-agricola-en-colombia-251118>.

(*Agencia Nacional de Tierras*) faces intense commercial pressures to relax the protective regulations on land administration in favor of greater production.<sup>80</sup> Added to these difficulties, the different levels of government lack a multisectoral approach and remain uncoordinated.<sup>81</sup>

Finally, despite the autonomy subnational governments enjoy in administering their resources, some of these municipalities grapple with more fundamental issues of capacity, such as a lack of skilled human resources, which leads to weak planning and execution. This can incentivize communities to favor patronage and clientelism in order to manage expectations. Most of the Amazonian departments grapple with these issues to a varying degree, with high risk of corruption on the one hand and low state capacity on the other (see Table 2 and Map 4).

**TABLE 2: SUBNATIONAL GOVERNMENT TRANSPARENCY INDEX (2015–2016)**

DEPARTMENT	CORRUPTION RISK LEVEL
<b>Amazonas</b>	High Risk
<b>Caquetá</b>	High Risk
<b>Guainía</b>	Very High Risk
<b>Guaviare</b>	Medium Risk
<b>Meta</b>	Medium Risk
<b>Putumayo</b>	Medium Risk
<b>Vaupés</b>	High Risk
<b>Vichada</b>	Medium Risk

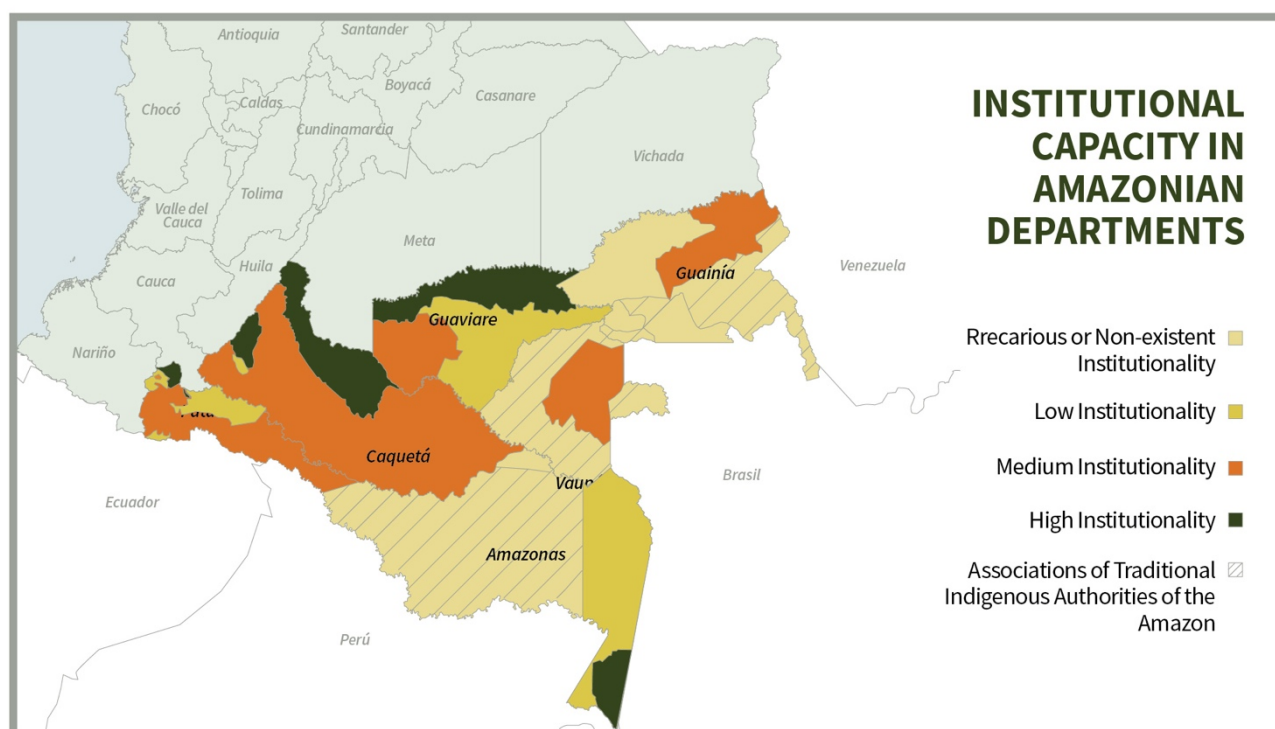
Source: Corporación Transparencia por Colombia, *Índice De Transparencia Departamental Gobernaciones Y Contralorías Resultados 2015 – Abril 2016*, Colección de Documentos Observatorio de Integridad N. 18 (Bogotá: March 2017), <https://transparenciacolombia.org.co/wp-content/uploads/itd-2015-2016.pdf>.

---

<sup>80</sup> Rodrigo Botero, “Más allá del sector ambiental, ¿qué pasa y a quién le importa la deforestación en la Amazonia?,” *Semana*, July 15, 2019, <https://sostenibilidad.semana.com/opinion/articulo/mas-alla-del-sector-ambiental-que-pasa-y-a-quien-le-importa-la-deforestacion-en-la-amazonia/44871>.

<sup>81</sup> Arenas, “Land Hoarding: What Colombia’s New Administration Has Inherited.”





Source: Visión Amazonía, MOTRA: Modelo de Ordenamiento Territorial Regional para La Amazonía Colombiana (Bogotá: Visión Amazonía, 2019), <http://visionamazonia.Bog.gov.co/content/uploads/2020/02/Libro-MotraVF-pq.pdf>.

### iii) Infrastructure Plans at Cross-purposes

The absence of well-performing coordination mechanisms between Colombia's national and subnational governments in development planning further complicates the regional outlook, especially as it pertains to infrastructure. There are national government plans and policies for the Amazon region, yet they are disconnected from or at odds with subnational plans, which leads to poor project choices and wasted resources, ultimately affecting the sustainability of the region. This becomes evident especially in transport projects.

Although Colombia is a unitary state, power is decentralized into 32 department (*departamentos*) and more than 1,123 municipalities that receive budgetary contributions from the national government. In the Amazonian region, there are 8 departments and 73 municipalities.<sup>82</sup> Between the national level and municipal governments, there are several layers of developmental plans for infrastructure that are not closely aligned. For instance, the national government has (since 2014) been pursuing a multimodal transport system for the region, prioritizing the development of airports and inland waterways. At the same time, the departments have continued to think of roads as the primary mode of transportation in the Amazon rainforest, despite the clear gains of using alternative modes of transportation. This disconnect not only leads to redundant spending and environmental consequences, but it also impedes policymakers at all levels in delivering and implementing their plans and creates bottlenecks to sustainable economic development.

<sup>82</sup> Breakdown of the municipalities: Amazonas (2), Caquetá (16), Vaupés (3), Vichada (4), Guaviare (4), Guainía (2), Putumayo (13), and Meta (29).

## National Plans

The overall vision for the development of the Amazon is crafted at the national level through the National Development Plan. The government's Department of National Planning (DNP)—which reports directly to the president of Colombia—is tasked with the production of this four-year national development plan for interministerial coordination on infrastructure policies and investment while setting monitorable performance targets. In terms of transport infrastructure planning and implementation, the Ministry of Transportation has the mandate to implement all transportation plans, policies, programs, and projects. It also designs the downstream technical regulation that governs public transit and transportation on different modes, including rail, road, river, and sea.<sup>83</sup>

Under the current NDP, there is a regional chapter on the Amazon, “*Desarrollo Sostenible por una Amazonía Viva*,” or “Sustainable Development for a Living Amazon,” which the national government is using to consider new projects and investments in the Amazonian region, with a critical focus on preserving the rainforests, creating sustainable agricultural practices, and providing access to mainstream economic and public services to the local communities.<sup>84</sup> The government is also keen to ensure that key Sustainable Development Goals (SDGs), such as clean and affordable energy (#7), decent work and economic growth (#8), inequality reduction (#10), and biodiversity preservation (#15), are all concurrently achieved.

Colombia's transportation and logistics system relies heavily on a network of roadways, primarily concentrated in the Pacific and Andean regions of the country. Eighty percent of internal transportation is ground-based, making roadways the principal element of the country's transportation system.<sup>85</sup> For the Amazonian region, the administration is keen to develop multimodal transportation systems. No major highways connect the region with the country's urban centers, but the region has an existing network of airports and waterways. In fact, President Juan Manuel Santos ended in 2018 a controversial \$1 billion project to expand the Marginal de la Selva highway, connecting La Macarena and San José del Guaviare.<sup>86</sup> The program was ended because the expansion would not only have required the clearing of forest cover, but it would have also led to inevitable biodiversity loss, displacement of indigenous communities, increased greenhouse gas emissions, and reduced carbon storage, all of which would likely be followed by more uncontrolled deforestation that typically accompanies construction of this type of transportation network.<sup>87</sup> This decision represented a balancing of priorities between the environmental impact of infrastructure development and accessibility and equity issues in the Amazon region.

One notable project included in the NDP focuses on increasing the navigability of the Putumayo river between Port Asis and Leticia. The project (estimated to cost more than \$150 million) will dredge a portion of the Putumayo river in order to improve commercial travel and emphasizes improving existing natural transportation modes rather than constructing disruptive roads. The project represents an effort

---

<sup>83</sup> In turn, the Ministry of Transportation is comprised of several agencies: Instituto Nacional de Vías (INVIAS), Agencia Nacional de Infraestructuras (ANI), Unidad Administrativa Especial de Aeronáutica Civil (AEROCIVIL), Superintendencia de Puertos y Transporte (SUPERTRANSPORTE), and Agencia Nacional de Seguridad Vial (ANSV).

<sup>84</sup> “Pacto Región Amazonía: Desarrollo Sostenible Por Una Amazonia Viva,” Government of Colombia, accessed June 9, 2020, <https://www.dnp.gov.co/DNPN/Plan-Nacional-de-Desarrollo/Paginas/Pactos-Regionales/Regi%C3%B3n-Amazonia/Desarrollo-sostenible-por-una-Amazonia-viva.aspx>.

<sup>85</sup> Amy Bell and Andres Schipani, “Colombia Prioritises Infrastructure Plans,” *Financial Times*, September 27, 2015, <https://www.ft.com/content/39e07b96-4b3d-11e5-b558-8a9722977189>.

<sup>86</sup> Tatiana Pardo Ibarra, “La Marginal de la Selva no se va a hacer: Juan Manuel Santos,” *El Tiempo*, March 9, 2018, <https://www.eltiempo.com/vida/medio-ambiente/la-carretera-marginal-de-la-selva-no-se-va-a-hacer-presidente-santos-191902>.

<sup>87</sup> Thais Vilela et al. “A Better Amazon Road Network for People and the Environment,” *Proceedings of the National Academy of Sciences of the United States of America* (February 2020), [https://www.conservation-strategy.org/sites/default/files/field-file/1910853117.full\\_.pdf](https://www.conservation-strategy.org/sites/default/files/field-file/1910853117.full_.pdf).

highlighted in the NDP to improve intermodal transport and is further detailed in the national *Plan Maestro Fluvial Colombia* “River Master Plan” of 2015.<sup>88</sup>

### Subnational Plans

On the subnational level, Colombia’s departments and municipalities have a mandate to administer grants and transfers received from the national authorities for education, healthcare, and sanitation services. These units have the autonomy to manage their public resources and are required to be in coordination with national policies. However, this coordination does not happen in practice. One reason is that each department’s government often develops a detailed development plan that is very specific to the department and divorced from the goals of the NDP. The result is a differing set of priorities and metrics and no mention of a coordinating mechanism with the national government or other departmental governments in the region.

Moreover, these subnational units face challenges of corruption and capacity constraints. For instance, the Transparency Index of Public Entities (ITEP) classifies 50 percent of all departmental governments at high or very high risk of corruption, and 48.8 percent of all mayors at high or very high risk of corruption.<sup>89</sup>

In particular, the biggest pressure in the Amazon is the presence of tertiary illegal roads that fall under the jurisdiction of subnational governments. Tertiary roads found today in the region are often either “*trochas*” constructed by the FARC or pathways built by illegal gold miners and other criminal groups. The government had no knowledge of these roads, and an inventory of these illegal roads was carried out just recently (see Map 5).<sup>90</sup> Road infrastructure is tied to security concerns, since these roads serve the economic interests of illegal groups or agribusiness and enable colonization and illegal land-grabbing.<sup>91</sup>

According to the nonprofit institution Amazon Geo-Referenced Socio-Environmental Information Network (RAISG in Portuguese), the Colombian Amazon houses a road network of 32,780 km (approximately 20,500 miles). This network comprises of roads from level one to level seven. Levels six and seven are considered the lowest-tier (or tertiary) roads and make up 23,407 kilometers (14,500 miles) of the total Amazonian roadway network. Of this tertiary road network, one-tenth (about 2,336 kilometers) cuts through indigenous reserves, while another 7,975 kilometers run through protected areas.<sup>92</sup> Gold miners and other criminal groups have illegally opened new roads, mainly tertiary roads, in the northwest arc of the Amazon.<sup>93</sup> Road networks into some of the most protected parts of the rainforests are expanding, particularly the Nukak Natural Reserve (expected to get two new routes), the Tinigua National Park (one new route), Serranía del Chiribiquete National Park (four new routes). Moreover, other roads in parks such as Picachos, Tinigua, and La Macarena (in Meta and Guaviare) are not destroyed but incorporated into conservation schemes.<sup>94</sup>

Separately, departmental government plans also propose the construction or rehabilitation of roads that remain at odds with national plans. The decentralized nature of the state in Colombia is such that the

---

<sup>88</sup> Colombia Ministry of Transport, *Plan Maestro Fluvial Colombia* (Bogotá: Government of Colombia, 2015), 15, <https://www.mintransporte.gov.co/descargar.php?idFile=13276>.

<sup>89</sup> Elisabeth Ungar Bleier, “2013-2014 Departmental Analysis,” El Índice de Transparencia de las Entidades Públicas, accessed June 9, 2020, <http://indicedetransparencia.org.co/Analisis/Departamental>.

<sup>90</sup> García, Tendencia de deforestación en la Amazonia Colombiana.”

<sup>91</sup> “La carretera que devora la selva,” *Semana*, January 25, 2020, <https://www.semana.com/nacion/articulo/trochas-ilegales-acaban-con-la-amazonia-colombiana/649428>.

<sup>92</sup> “Routes into the Forest,” Amazonia at the Crossroads.

<sup>93</sup> Ibid.

<sup>94</sup> Helena Calle, “El 68 % de la Amazonia protegida está amenazada,” *El Espectador*, June 5, 2019, <https://www.elspectador.com/noticias/medio-ambiente/el-68-de-la-amazonia-prottegida-esta-amenazada-articulo-864272>.

national government has the key responsibility of securing investments in the construction, expansion, and maintenance of primary roads. In contrast, the departments and municipalities are in charge of investments in secondary and tertiary roads, respectively. Departmental government plans also do not follow national technical, environmental, and legal requirements. For example, in the department of Guaviare, many road plans did not meet these requirements.<sup>95</sup>

In this regard, each department develops a Regional Development Plan (RDP) independent of the NDP. RDPs identify the department's development goals and strategies, sometimes irrespective of priorities outlined in the NDP. For example, the 2016–2019 RDP of the Amazonas Department, for example, identifies closing the gap in road infrastructure as a priority, while the NDP advocates instead for expanding multimodal transport, such as riverways.

Local governments (at the department level) are issuing plans to formalize previously illegal roads into the formal road network. Valued at more than \$300 million, these plans risk reinforcing and amplifying problems of deforestation and insecurity.<sup>96</sup> On top of the tertiary road confusion, the national government has had long-standing plans to pave highways through some of the more sensitive parts of the forest as a way to connect the Amazon with the rest of the country physically. For example, the billion-dollar and nearly 3,800-kilometer-long Marginal de la Selva highway project would cut through two national parks in the Amazon region while connecting Ecuador and Venezuela through Colombia.<sup>97</sup>

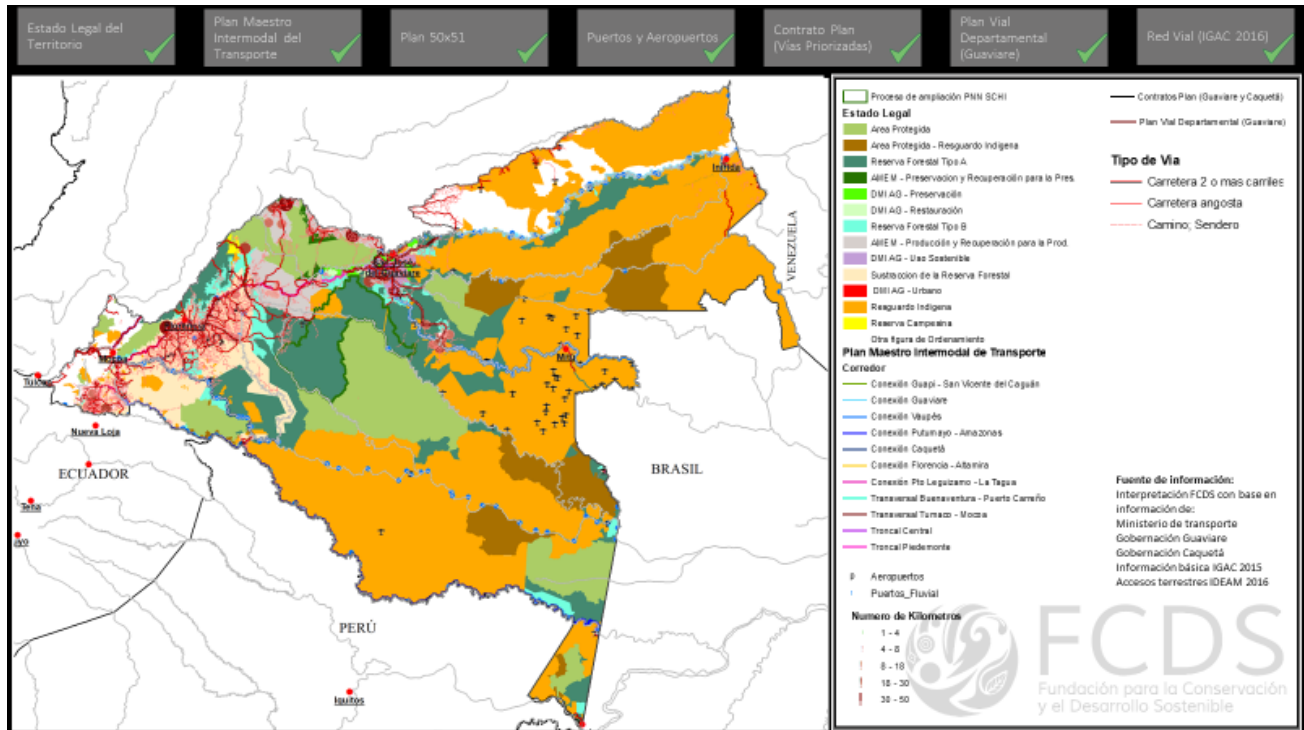
---

<sup>95</sup> “Gobernador del Guaviare prendió alarmas entre los ambientalistas,” *Sostenible*, January 17, 2019, <https://sostenibilidad.semana.com/medio-ambiente/articulo/gobernador-del-guaviare-prendio-alarmas-entre-los-ambientalistas/42648>; and Rodrigo Botero Garcia, “Frontera Agropecuaria en la Amazonia: La infraestructura de gran escala como motor de la ampliación en función de los mercados de tierras, energía y minería mundiales,” Semillas, <https://www.semillas.org.co/apc-aa-files/353467686e6667686b6c676668f16c6c/rodrigo-botero.pdf>.

<sup>96</sup> “Routes into the Forest,” Amazonia at the Crossroads.

<sup>97</sup> Taran Volckhausen, “New Highway Brings Deforestation near Two Colombian National Parks,” Mongabay Environmental News, June 21, 2017, <https://news.mongabay.com/2017/06/new-highway-brings-deforestation-to-two-colombian-national-parks/>.

## MAP 5: ILLEGAL ROADS IN THE COLOMBIAN AMAZON



Source: Fundación para la Conservación y el Desarrollo Sostenible (FCDS) (Bogotá: FCDS, 2019), <https://fcds.org.co/cartografia/>.



# Toward Sustainable Infrastructure in the Colombian Amazon

Ultimately, the peace deal remains in a fragile state and the lack of sustainable economic development opportunities is only adding to the instability of the Amazon region. Implementing the 2016 peace deal will be a hard transition (and not a linear process) requiring increased coordination between agencies responsible for economic growth, ecological conservation, internal security, and inclusive social development. Consequently, the focus has been on ensuring that the disarmed guerilla rebels and the inhabitants of the rainforests can live harmoniously while prospering economically without resorting to illicit activities.<sup>98</sup>

## *Combining Security with Economic Development and Environmental Preservation*

A recurring concern from civil society actors and independent observers engaged in the Colombian peace process is that the nation's security sector is not fully using its mandate and enforcement powers vis-à-vis many of the illicit activities such as coca cultivation and unauthorized mining. To their credit, law enforcement officials do make headlines for arrests (and keep the public pressure at bay) but often end up targeting individual farmers or miners. At the same time, more organized criminal groups are left unscathed due to corruption and political expediency.<sup>99</sup> Increased investigations should be targeted at big funders for drug trafficking and other businesses across all Colombian regions and be part of an interagency process.<sup>100</sup>

Colombian authorities can overcome institutional dissonance by creating an independent office headed by a non-partisan deforestation “czar” who is well regarded across the political spectrum. Reporting directly to the president, this czar would have the mandate to tackle deforestation in a whole-of-government manner. Although it would not be the first time it has been proposed, this holistic approach would factor in diplomatic, environmental, economic, governance, and security considerations.<sup>101</sup> The czar would have the ability to align interdepartmental interests, reduce interdepartmental bureaucracy and differences in organizational culture, and acquire the logistical and financial resources to lead the efforts against deforestation in an effective and streamlined manner.<sup>102</sup> To the extent necessary, the United States and other donor countries can facilitate the establishment of this czar by leveraging foreign assistance resources and tools. Professionalizing the enforcement forces—under the tutelage of the czar—can minimize systemic corruption, increase the government's ability to enforce the law over larger mafias, and create a greater impact in arresting deforestation.

---

<sup>98</sup> Christopher Woody, “Colombia FARC Peace Plan Drug Production and Trafficking Problems,” Business Insider, August 27, 2016, <https://www.businessinsider.com/colombia-farc-peace-plan-drug-production-and-trafficking-problems-2016-8>; and Ted Piccone, “Is Colombia’s Fragile Peace Breaking Apart?,” Brookings, March 28, 2019. <https://www.brookings.edu/blog/order-from-chaos/2019/03/28/is-colombias-fragile-peace-breaking-apart/>.

<sup>99</sup> Maria Fernanda Lizcano, “Criminal Mafias Take over Colombian Forests,” Mongabay Environmental News, September 7, 2018, <https://news.mongabay.com/2018/09/criminal-mafias-take-over-colombian-forests/>.

<sup>100</sup> Botero, “Más allá del sector ambiental, ¿qué pasa y a quién le importa la deforestación en la Amazonia?”

<sup>101</sup> Rodrigo Botero, “Señor presidente, la deforestación no es solo un problema de medio ambiente,” CeroSetenta, August 10, 2018, <https://cerosetenta.uniandes.edu.co/deforestacion-colombia/>.

<sup>102</sup> OECD, *Towards Better Measurement of Government* (OECD Publishing: 2017), OECD Working Papers on Public Governance, <https://www.oecd.org/governance/digital-government/38134037.pdf>.

Increased security needs to be combined with a more integrated effort across all sectors, from health to the environment, education, infrastructure, and economic development. While often the first (and the most influential) player in ecological preservation, the public sector is not the sole stakeholder of the rainforest. There is a need for a more concerted effort to bring in the private sector to create value supply chains that can keep the forest alive and provide economic alternatives to people, including the bioeconomy and ecotourism.

*“We need to devise incentives that would make it good business to keep the forest alive.”*

*-Anonymous Interviewee*

The shared value concept contests the conventional notion of companies treating their commercial objectives as distinct from their social impact objectives. Instead, the concept rests upon the central premise that the competitiveness of a company is intrinsically dependent on the health and prosperity of the communities among which it exists.<sup>103</sup> To enable this shared value supply chain development, public-sector resources can be used to provide grants, loans, and guarantees that can minimize the risks involved in making investments to develop or transform the value chains in the Colombian economy.<sup>104</sup> These derisking instruments must ensure that the private investments they support target those engaged in illicit activities and provide them with economic alternatives that are sustainable both financially and environmentally.

### *A Multisectoral and Integrated Vision for Infrastructure Development*

Due to its topography and geographic location, Colombia has a higher risk of being affected by natural disasters. Twenty percent of Colombia’s territory, 85 percent of its population, and nearly 90 percent of its economy are at risk from natural disasters.<sup>105</sup> Given the ecological and humanitarian crises that would ensue in the event of a major natural disaster, it is imperative for the country to invest in sustainable and resilient infrastructure.

For Colombia to meaningfully adopt a sustainable model for infrastructure development, the first step is to ensure broad, cross-partisan commitment. Given the public resources and time investment needed to adopt and sustain new infrastructure development plans and the frequency with which political winds change on account of elections, political will for sustainable infrastructure development is critical. In this regard, a more concerted discussion on the types of infrastructure the Amazon region needs to invest in and what their purposes would be is overdue.

One way to mitigate the coordination issues between Bogotá and the departments in infrastructure development is for the Department of National Planning (DNP) to create new channels for department governors to have shared roles in producing development plans such as through a governors’ taskforce. Not only does such a mechanism allow for greater coordination, but it also helps create consensus and reduces partisan differences while enabling national authorities to hold local governments accountable should they diverge from the national plan. This should also be accompanied by increased capacity building and resources for subnational entities.

---

<sup>103</sup> Deirdre White and John Holm, “Can Shared Value Surpass the Promise Of CSR?,” PYXERA Global, June 10, 2015, <https://www.pyxeraglobal.org/can-shared-value-surpass-the-promise-of-csr/>.

<sup>104</sup> Daniel F. Runde et al., *Innovations in Guarantees for Development* (Washington, DC: CSIS, 2019), <https://www.csis.org/analysis/innovations-guarantees-development>.

<sup>105</sup> “Colombia,” Global Facility for Disaster Reduction and Recovery, accessed June 9, 2020, <https://www.gfdrr.org/en/colombia>.

In this regard, civil society and development banks have been engaging national governments and private actors to rethink their approach to infrastructure. Organizations such as the OECD, the UN, multilateral development banks and development finance institutions (DFIs), and intergovernmental forums such as the G7 and G20 have frameworks for “sustainable infrastructure” or “quality infrastructure.” Many of these frameworks include strong emphases on upstream planning and governance and enabling conditions. Those same elements should also positively impact environmental, social, and economic outcomes.

One such tool under discussion in Colombia is a forthcoming guide for green road construction (“Lineamientos de Infraestructura Verde Vial para Colombia”), which lays out a series of recommendations on how to approach transport infrastructure taking economic, social, and environmental aspects in account.<sup>106</sup> This guide is being piloted in Guaviare. In simplest form, the guidelines ask what the economic, social, institutional, and environmental rationales are for building roads ahead of construction, avoiding the construction of roads when possible and instead using other modes of transport, respecting the agricultural frontier, considering environmental and social risks in all project phases, finding ways to mitigate and compensate for social and environmental effects, and restoring deforested areas. A road built on a straight line from point A to point B might make sense in terms of engineering and economic analysis; however, this type of design has environmental and social externalities in the Amazon which compel rethinking the design of these roads, or whether they are necessary at all. Another tool to guide road construction is a sustainability index developed by the Conservation Strategy Fund and La Fundación para la Conservación y el Desarrollo Sostenible (FCDS) that ranks the efficiency of all projects in terms of their economic benefits while weighing environmental and social concerns.<sup>107</sup> A recent study evaluated 75 planned road projects spanning 12,000 kilometers in five countries of the Amazon and concluded that 45 percent of the roads were not economically viable—even without accounting for the environmental and social costs.<sup>108</sup> The same study found that if governments used this sustainability tool, only a small subset of carefully selected road projects would be found to bring economic benefits while minimizing environmental and social costs.

### *Strengthening Land Governance*

As described in previous sections, weak enforcement of property rights has been a key driver of deforestation. Decades of conflict and guerilla warfare have eroded the ability of the Colombian government (and the governments of the conflict-affected departments) to design and institutionalize land titling and governance systems effectively. However, revolutionary new technologies such as blockchain, cloud computing, data analytics, and satellite mapping are now available for civilian use and may increase the government’s ability to strengthen land rights institutions and enforcement.<sup>109</sup> The U.S. Agency for International Development (USAID) has already used some of these technologies to develop its Mobile Applications to Secure Tenure (MAST) platform, which has helped secure land rights for individuals in Burkina Faso, Tanzania, and Zambia.<sup>110</sup>

Colombian authorities have the ability to partner with development agencies from countries such as the United States and the United Kingdom, international financial institutions such as the World Bank and the

---

<sup>106</sup> “Fundación para la Conservación y el Desarrollo Sostenible,” FCDS Conservación y Desarrollo, August 9, 2018, <https://fcds.org.co/linea-de-tiempo-infraestructura/>.

<sup>107</sup> Vilela et al. “A Better Amazon Road Network for People and the Environment.”

<sup>108</sup> Ibid.

<sup>109</sup> Juan Pablo Soliz Molina, “Blockchain Technology: The Future of Better Land Governance,” Thomson Reuters Aumentum, [https://tax.thomsonreuters.com/site/wp-content/pdf/aumentum/Aumentum\\_Blockchain\\_White\\_Paper.pdf](https://tax.thomsonreuters.com/site/wp-content/pdf/aumentum/Aumentum_Blockchain_White_Paper.pdf).

<sup>110</sup> “Mobile Applications to Secure Tenure (MAST) Learning Platform,” LandLinks, accessed June 9, 2020, <https://www.land-links.org/tool-resource/mobile-applications-to-secure-tenure-mast/>.

Inter-American Development Bank, and the private sector community (particularly the technology sector) to develop programs and platforms that can help the country overcome its institutional weaknesses in the Amazonian departments. Colombia can strengthen territorial governance, improve the transparency in land registry and titling, and increase the judicial system's capacity to enforce property rights before belligerents of the rainforest can inflict significant damage upon it.

In this regard, Colombia already has some valuable legal channels to protect the Amazon's natural wealth. One such tool is enforcing the agricultural frontier which is now under threat from the expansion of exportable commodities. All sectors should adopt that frontier and work in a more coordinated and integrated way to respect the local communities and the living forest. Implementing a system of economic incentives for those regions who respects the frontier (and fines those who do not) and invests in programs to increase agricultural productivity instead of deforesting could be a way to strengthen this tool.<sup>111</sup> Deforestation data can also become an important tool to hold local government accountable.

---

<sup>111</sup> Botero Garcia, "Frontera Agropecuaria en la Amazonia: La infraestructura de gran escala como motor de la ampliación en función de los mercados de tierras, energía y minería mundiales."

# ANNEX A: Overview of The Legal Framework for Protecting the Colombian Amazon

## *The Constitution*

Since its founding as a republic in 1830, Colombia has gone through nine constitutions. The current one—adopted in 1991—came to be known as the “Ecological Constitution” due to the codification of environmental rights (think of it as a “Green Bill of Rights”). Under Title II (Rights, Guarantees, and Duties), the constitution codifies the ecological and environmental rights in Chapter III, giving them the same status and effect as civil and political rights (in Chapter I) and social and economic welfare rights (in Chapter II). This guarantee of environmental rights has made the Colombian constitution one of the more progressive and green constitutions in the world. The key environmental rights enshrined in this chapter include the following:

- i. The Right to a Healthy Environment (per Article 79)
- ii. The Duty of the State to Ensure Sustainable Development and the Control of Environmental Degradation (per Article 80)
- iii. The Duty of the State to Protect the Integrity of Public Space, Soil, and Urban Air and To Ensure its Use in Common Interest (per Article 82)

The constitution also leaves room for unenumerated rights of the individual. Article 94 clarifies that “the rights and guarantees contained in the Constitution and international agreements in effect should not be understood as a negation of others which, being inherent to the human being, are not expressly mentioned in them.”

## *The Constitutional Court Ruling*

Beyond the written text, the Supreme Court of Justice - Civil Cassation Chamber (*Corte Suprema de Justicia - Sala de Casación Civil*) issued a landmark ruling in 2018 that expanded the scope of the constitution and the obligations of the Colombian state in preserving the Amazonian ecosystem.<sup>112</sup> The verdict, which had no parallels in other constitutional republics, recognized the Amazon Basin as a beneficiary of the rights and protections enshrined in the Colombian constitution. The court declared that “for the sake of protecting this vital ecosystem for the future of the planet,” it would “recognize the Colombian Amazon as an entity, subject of rights, and beneficiary of the protection, conservation, maintenance and restoration” that national and local governments are obligated to provide under Colombia’s constitution. In this respect, the decision builds on the Colombian constitutional court’s judgment in 2016 that granted legal rights to the Rio Atrato, which empties into the Caribbean Sea near the border with Panama.<sup>113</sup> Having

---

<sup>112</sup> Luis A. T. Villabona, “File No. 11001-22-03-000-2018-00319-01,” Sala de Casación Civil, Corte Suprema de Justicia de Colombia, April 4, 2018, <http://www.cortesuprema.gov.co/corte/wp-content/uploads/2018/04/STC4360-2018-2018-00319-011.pdf>.

<sup>113</sup> Nicholas Bryner, “Colombian Supreme Court Recognizes Rights of the Amazon River Ecosystem,” IUCN, April 20, 2018, <https://www.iucn.org/news/world-commission-environmental-law/201804/colombian-supreme-court-recognizes-rights-amazon-river-ecosystem>.

blessed the rainforest with its newfound rights, the court laid out the following three remedies to help secure these rights:

- i. within four months of the decision, the president and various ministries and administrative agencies must create a series of short-, medium-, and long-term action plans to combat deforestation and the impacts resulting from global climate change;
- ii. the state must also create an “Intergenerational Pact for the Life of the Colombian Amazon” (PIVAC) within five months;
- iii. municipalities in the Amazon are required to form and begin implementing territorial land-use plans.

### *Legal Codes, Frameworks, Regulations, and Institutions*

Through Law 23 of 1973, the Colombian state ordained the Natural Renewable Resources and Protection of the Environment Code of 1974, making it the first law that organized and gave a unified conceptual treatment to areas that were formerly treated separately.<sup>114</sup> Among its key provisions are:

- (i) giving environmental policy in Colombia a focus on sustainable development;
- (ii) establishing the right to enjoy a healthy environment (Art. 7 - subsequently adopted by the constitution of 1991);
- (iii) setting out stimulus and sanctions as methods of developing environmental policy;
- (iv) systematically regulating the areas of flora, fauna, water, and forests;
- (v) establishing and regulating Special Management Areas (*Áreas de Manejo Especial*), defining these as areas for the administration, management, and protection of the environment and renewable natural resources, and;
- (vi) setting out the three uses for which forest areas could be zoned: production, protection, and hybrid use (sustainable production).

In 1993, the General Environmental Law (*Ley General Ambiental*) was enforced through congressional action. The law directly created the Colombian Ministry of Environment. The ministry was given the mandate to “promote the substitution of non-renewable natural resources for the development of non-polluting and non-degrading energy generation technologies.”<sup>115</sup> To that end, the ministry was given the responsibility to regulate and license developmental activities that affected public lands and natural resources—including hydropower plant construction, water reservoirs, power plant installation, and national electric grid installation. The law was further amended in 2009 to give the Colombian state environmental sanction powers and the ability to engage with the Colombian national army, departmental, district, and municipal authorities and penalize those infringing or violating the environmental law in effect.<sup>116</sup>

In 2011, the Colombian congress created the National Authority for Environmental Licenses as the nodal regulatory agency that would assess, evaluate, and issue environmental licenses and permits for any development project taking place in close contact with conservable public land and natural resources.<sup>117</sup> In

---

<sup>114</sup> “Colombian Supreme Court Recognizes Rights of the Amazon River Ecosystem,” Chambers and Partners, November 13, 2019, <https://practiceguides.chambers.com/practice-guides/environmental-law-2019-second-edition/colombia#:~:text=Law%2023%20of%201973%2C%20still,currentl%20valid%20and%20in%20full.>

<sup>115</sup> “General Environmental Law (Ley General Ambiental) - Law 99,” International Energy Agency, March 28, 2017, <https://www.iea.org/policies/6305-general-environmental-law-ley-general-ambiental-law-99>.

<sup>116</sup> Luis Fernando Macías Gómez, *Colombia: Environment and Climate Change Law 2020* (London: Global Legal Group, February 2020), <https://iclg.com/practice-areas/environment-and-climate-change-laws-and-regulations/colombia>.

<sup>117</sup> “Water Resources Allocation: Sharing Risks and Opportunities, OECD Studies on Water,” OECD Publishing, 2015, <https://www.oecd.org/countries/colombia/Water-Resources-Allocation-Colombia.pdf>.



the same year, the government also created the Colombian National Parks System (through Law 3572 of 2011), which allowed the state to manage, plan, and regulate the use of public lands and restrict its use by commercial actors.<sup>118</sup>

---

<sup>118</sup> “Colombian Action Plan 2010-2014,” República de Colombia Embajada ante el Reino de Bélgica y el Gran Ducado de Luxemburgo Misión ante la Unión Europea, October 31, 2012, [http://www.europarl.europa.eu/meetdocs/2009\\_2014/documents/droi/dv/902\\_actionplan\\_/902\\_actionplan\\_en.pdf](http://www.europarl.europa.eu/meetdocs/2009_2014/documents/droi/dv/902_actionplan_/902_actionplan_en.pdf).

# ANNEX B: Colombia's International Environmental Commitments

**UN Sustainable Development Goals (SDGs):** In April 2019, the Colombian government launched a consolidated national Sustainable Development Goal tracker that reports the progress the country has made toward achieving the SDGs.<sup>119</sup> According to the *Departamento Nacional de Planeación* (the National Planning Department), Colombia has committed to reducing its greenhouse gas emissions (GHG) by 20 percent by 2030 to realize SDG #13 and has already made substantial progress. Between 2014 and 2022, Colombia is expected to reduce its emissions from 177.6 million metric tons of carbon dioxide equivalent to 141.6 million metric tons—a 20 percent drop. Moreover, the government also expects 100 percent of its departments to implement the climate change adaptation initiatives guided by the relevant environmental and ecological protection agencies by 2022.

Furthermore, to ensure better management of and resilience to natural disasters, the government plans to carry out actions that will reduce the rate of people affected by recurring events (per 100,000 inhabitants) from 1,048 in 2018 to 987 people in 2022.<sup>120</sup>

Colombia is also a signatory to the United Nations Conference on Human Environment (1972), the UN Conference on Environment and Development (2002), the Convention on Biological Diversity (1992), and the Convention on the Environmental Impact Assessment in a Transboundary Context (1991).

**Paris Accord:** Colombia was one of the few countries in the world (and the first in the region) to release its own Intended Nationally Determined Contributions (INDC) ahead of the scheduled COP 21 climate talks in Paris. Launched in 2015, the INDC was a nationally devised climate plan that laid out Colombia's national targets for economy-wide emissions reduction. The plan committed to a 20 percent (unconditional) to 30 percent (conditional) reduction in GHG emissions by 2030.<sup>121</sup> Six months later, in April 2016, the Paris climate talks took place. In June 2017 (more than a year after then-President Juan Manuel Santos signed the Paris Agreement at the United Nations), Colombia ratified the agreement with the passage of Law 1.844. Following the legislative action, the constitutional court reviewed the commitment and granted its approval before the president signed the ratification into law in July 2017.

Additionally, the government took meaningful measures to integrate its ratification with the National Climate Change Policy of 2016 and has been coordinating on a subnational level through regional ordinances and departmental and municipal development plans. Although the federal government has codified these initiatives and ordinances at the national level, it has been the cities (and local governments) who are at the forefront of the Colombian climate change agenda, engaging deeply on critical issues such as urban planning (e.g., land use, electricity generation, waste management). To that

---

<sup>119</sup> "Colombia Launches SDG Corporate Tracker to Measure Private Sector Contribution to the SDGs," BCtA, April 3, 2019, <https://www.businesscalltoaction.org/news/colombia-launches-sdg-corporate-tracker-measure%C2%A0private-sector-contribution-sdgs>.

<sup>120</sup> "Climate Action - The 2030 Agenda in Colombia - Sustainable Development Goals," Sustainable Development Goals, accessed June 9, 2020, <https://www.ods.gov.co/en/goals/climate-action>.

<sup>121</sup> Kathleen Mogelgaard, David Rich, and Eliza Northrop, "Colombia First South American Country to Release New Climate Plan Ahead of Paris," World Resources Institute, September 14, 2015, <https://www.wri.org/blog/2015/09/colombia-first-south-american-country-release-new-climate-plan-ahead-paris>.

end, the Ministry of Environment and Sustainable Development in Bogotá has created the Roundtable of Cities and Climate Change to give cities and local officials the chance to take the lead on the issue.<sup>122</sup>

**Amazon Fund:** In 2015, Britain, Germany, and Norway came together to establish the Amazon protection fund and back Colombia's efforts to preserve the 60 million hectares of Amazon forest cover in the country. In the four years since the fund was established, the donors have contributed \$180 million while committing to an additional \$366 million over the next five years. The new commitments are being made as donors recognize the progress Colombia has achieved in reversing deforestation trends.<sup>123</sup> With all the funding contingent upon progressive results, the fund seeks to realize the ambitious goal of having zero loss of natural forests by 2030.<sup>124</sup> The joint declaration between Colombia and the three donor countries recognizes the centrality of the indigenous inhabitants of the rainforests and emphasizes the need to include them in all rainforest preservation policy discussions and provide the resources necessary to support their self-governance systems and Amazon resource management plans. Moreover, the fund seeks to accomplish the following key priorities:

- Establish a package of actions to reverse illegal land occupation;
- Strengthen national policies to effectively tackle unlawful activities such as logging, mining, and illicit crop cultivation;
- Bring an additional 2.5 million hectares under a protective cover; and,
- Foster public-private partnerships with companies committed to zero deforestation policies.

**Regional Cooperation:** In 2009, Colombia set a goal to reach net-zero deforestation in the Colombian Amazon by 2020.<sup>125</sup> In efforts to achieve this goal, the country has launched several initiatives to combat threats to the rainforest. The country launched "The Amazon Vision" in 2016, a strategy that promotes new development models focusing on peace and sustainability while maintaining environmental and biodiversity standards. The program has seen support from the governments of Germany, the United Kingdom, and Norway.<sup>126</sup> In November 2017, Colombia joined with the Tropical Forest Alliance 2020 to launch a multi-stakeholder platform of buyers, producers, donors, and others to address issues such as palm oil and other product-driven causes of deforestation.<sup>127</sup>

Successive Colombian presidents have led the charge to protect the Amazon through coordinated action, regional cooperation, and other efforts to monitor the rainforest and increase the capacities and participation of indigenous and tribal people.<sup>128</sup> The current president, Ivan Duque, initiated talks in Leticia, Colombia—the unique city within the Colombian Amazon that shares borders with Peru and Brazil—and signed the Leticia Pact in September 2019, which utilizes disaster response coordination and satellite monitoring to protect the forest. Colombia, Bolivia, Peru, Ecuador, Guyana, Brazil, and Suriname

---

<sup>122</sup> "Colombia's Climate Challenge to Jump Start City Action," Climate and Development Knowledge Network, June 27, 2019, <https://cdkn.org/2019/06/feature-colombias-climate-challenge-to-jump-start-city-action/>.

<sup>123</sup> Anastasia Moloney, "Colombia's Amazon Forest Gets Boost with \$366 Million Protection Fund," Reuters, December 11, 2019, <https://www.reuters.com/article/us-colombia-forests-climate-trfn-idUSKBN1YF2BD>.

<sup>124</sup> "Colombia, Germany, Norway and the UK Announce Groundbreaking Partnership to Protect Colombia's Rainforest," Government of Norway, press release, November 30, 2015, <https://www.regjeringen.no/en/aktuelt/colombia/id2464811/>.

<sup>125</sup> "Colombia's Amazon Vision Program," Earth Innovation Institute, accessed June 9, 2020, <https://earthinnovation.org/our-work/case-studies/colombias-amazon-vision-program/>.

<sup>126</sup> "Amazon Vision Launched in Colombia," Global Green Growth Institute, June 8, 2016, <https://gggi.org/press-release/amazon-vision-launched-in-colombia/>.

<sup>127</sup> Maxwell Hall, "Colombia Launches Partnership to Protect Amazon Rainforest from Deforestation," World Economic Forum, November 28, 2017, <https://www.weforum.org/press/2017/11/colombia-launches-partnership-to-protect-amazon-rainforest-from-deforestation/>.

<sup>128</sup> Steven Grattan, "Amazon Countries Sign Pact to Better Protect the Rainforest," Al Jazeera, September 6, 2019, <https://www.aljazeera.com/news/2019/09/amazon-countries-sign-pact-protect-amazon-190906213133474.html>.

were all represented at a one-day summit to sign the pact.<sup>129</sup> Colombia is also a member of the Amazon Cooperation Treaty Organization (ACTO).

**Visión Amazonía:** Visión Amazonía is a national program managed by the Ministry of the Environment centered around reducing deforestation and encouraging sustainable development. The program contains five main pillars: forest governance; development of the sustainable sector; agri-development; environmental governance with indigenous people; and information systems on deforestation.<sup>130</sup> The program advances goals in the five pillars through education efforts, management of public-private partnerships, and the strengthening of planning instruments. Notable accomplishments of the program include the creation of a Regional Administrative Planning Department of the Amazon, which brought together all the regional governments of departments in the Amazon to construct practices to combat deforestation; 19 projects in Caquetá and Guaviare that have benefitted 4,522 people; and 10 agro-environmental projects to promote forest conservation and sustainable development.<sup>131</sup>

---

<sup>129</sup> Luis Jaime Acosta, "Amazon Countries Sign Forest Pact, Promising to Coordinate Disaster Response," Reuters, September 6, 2019, <https://www.reuters.com/article/us-brazil-environment-amazon-summit-idUSKCN1VR2B1>.

<sup>130</sup> "Así Intervenimos En La Amazonía Colombiana," Visión Amazonía, accessed June 9, 2020, <https://visionamazonia.minambiente.gov.co/como-intervenimos/>.

<sup>131</sup> "En Abril Incian Los 19 Proyectos Agroambientales En Guaviare Y Caquetá Como Alternativa Frente A La Deforestación," Visión Amazonía, March 26, 2018, <https://visionamazonia.minambiente.gov.co/news/en-abril-incian-los-19-proyectos-agroambientales-en-guaviare-y-caqueta-como-alternativa-frente-a-la-deforestacion/>; and "Sustainable Development and Forest Conservation," Visión Amazonía, October 8, 2017, <https://visionamazonia.minambiente.gov.co/en/news/sustainable-development-and-forest-conservation/>.

# About the Authors

**Romina Bandura** is a senior fellow with the Project on Prosperity and Development and the Project on U.S. Leadership in Development at CSIS. Her current research focuses on the future of work in developing countries and the United States' economic engagement in the developing world. She has also conducted extensive research on enhancing the reach and impact of the Multilateral Development Bank system. Before joining CSIS in September 2017, she was a senior consultant at the Economist Intelligence Unit (EIU). She worked closely with clients to design, research, and manage projects including index building, quantifying qualitative variables, policy analysis, and strategies for investment and growth. EIU flagship projects include benchmarking indices like the Global Microscope on Financial Inclusion and the Latin America and Caribbean Infrascopes project. Ms. Bandura is an economist with 18 years of experience in international development research, policy analysis, and project management. Before joining EIU, she was an economist at the International Labour Organization's Washington office. In her previous capacity as a business manager at DAI's Economic Growth Sector, she managed a \$90 million private sector development portfolio of projects in Africa, Asia, and Eastern Europe. She has also served as a policy analyst for the UN Development Programme. Earlier in her career, she worked in the banking sector in Argentina. Ms. Bandura holds an MPA in international development from Harvard University's Kennedy School of Government and a BA in economics from the Universidad Católica Argentina, Buenos Aires.

**Mary Margaret Burniston** is a former CSIS intern with the Project on Prosperity and Development. She is a current undergraduate at the University of Texas at Austin, where she studies the intersection of government, sociology, and psychology in the Liberal Honors and Humanities Honors programs. She is a Forty Acres Scholar, a Bill Archer Fellow, and a Junior Fellow. She is drawn to exploring unexpected connections between disciplines through mixed-method analysis and is passionate about applying research in the social sciences towards data-driven policy reforms. Her research areas of interest include primary education in developing nations, women's economic empowerment, and the influence of the international political economy on U.S. domestic policy. Her current research examines patterns of bipartisanship in crime and law legislation in the United States Congress. She has previously worked as a research affiliate for the Innovations for Peace and Development Lab, and as an Undergraduate Research Assistant at the Center for Media Engagement.

**Sundar R. Ramanujam** is a research associate with the Project on Prosperity and Development at CSIS. His current research focuses on innovations in development finance, and he has in-depth knowledge on emerging market development challenges such as quality infrastructure, local capital financing, and technology-driven human resource development. He has an avid interest in understanding the role of constitutions and courts in shaping the rule of law and political economy, with a comparative focus on South Asia and Latin America and has an understanding of the politics of economic reform and capacity building. He previously worked for the renowned political scientist Donald L. Horowitz at the National Endowment for Democracy. He also was associated with CSIS through the India Chair, where he interned during the summer of 2016. Mr. Ramanujam received his undergraduate training as an electrical engineer from Shiv Nadar University in India and holds a master's degree in Democracy and Governance from Georgetown University.

---

**COVER PHOTOS** CRIS BOURONCLE/POOL/AFP via Getty Images, TARSO SARRAF/AFP via Getty Images,  
ELSON ALMEIDA/AFP via Getty Images, CARL DE SOUZA/AFP via Getty Images



1616 Rhode Island Avenue NW  
Washington, DC 20036  
202 887 0200 | [www.csis.org](http://www.csis.org)