



# Project Information Document (PID)

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Concept Stage | Date Prepared/Updated: 25-May-2022 | Report No: PIDC34027



**BASIC INFORMATION**

**A. Basic Project Data**

Country Colombia	Project ID P178872	Parent Project ID (if any)	Project Name Colombia: BioCarbon Emissions Reduction Program Orinoquia (P178872)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Feb 22, 2023	Estimated Board Date Jul 13, 2023	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) Republic of Colombia	Implementing Agency Instituto de Hidrologia, Meteorologia y Estudios Ambientales (IDEAM), Ministry of Agriculture and Rural Development (MADR), Ministry of Environment and Sustainable Development (MADS), National Planning Department (DNP)	

**Proposed Development Objective(s)**

Generate payments to the Program Entity for measured, reported, and verified Emission Reductions (ERs) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), agriculture, and other land use sectors that meet the GHG accounting requirements of the BioCF ISFL in the Orinoquia region of Colombia and to distribute ER payments in accordance with an agreed Benefit Sharing Plan (BSP).

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	50.00
<b>Total Financing</b>	50.00
<b>of which IBRD/IDA</b>	0.00
<b>Financing Gap</b>	0.00

**DETAILS**



Non-World Bank Group Financing

Trust Funds	50.00
BioCF Tranche 3	50.00

Environmental and Social Risk Classification  
Substantial

Concept Review Decision  
Track II-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

- After Colombia’s two decades of sustained economic growth and poverty reduction, the COVID-19 crisis hit the economy hard, with effects that might take time to overcome.** Colombia is a populous country with an estimated 50.8 million people in 2020<sup>1</sup> and an area of 2,070,408 square kilometers, of which 55 percent is terrestrial. Colombia’s solid economic growth since the early 2000s led to significant social improvements. Extreme poverty fell from 17.7 percent in 2002 to 7.2 percent in 2018. Moderate poverty also decreased, dropping from 49.7 to 27.0 percent over the same period.<sup>2</sup> In 2020, real Gross Domestic Product (GDP) contracted by 6.8 percent against a pre-crisis projection of a 3.6 percent growth.<sup>3</sup> As a result of weak revenue collection and higher spending to support the economy and save lives, the overall national deficit increased to 7 percent of GDP, compared with a projected 2.6 percent of GDP before the pandemic.<sup>4</sup> Unemployment grew from 12.2 percent in February 2020 to an all-time high of 21.4 percent in May 2020, but decreased to 14.3 percent in 2021.<sup>5</sup> As a result, the crisis has also reversed the recent progress in social improvements. Notwithstanding the mitigating impact of the emergency social transfers put in place in response to the crisis, the incidence of poverty increased from 35.7 percent in 2019 to 42.5 percent in 2020, reversing all gains in poverty reduction over the last decade.<sup>6</sup>
- Climate change is negatively affecting the country’s economy and its natural resource base.** In 2020, the country ranked 89<sup>th</sup> out of 181 in the Notre Dame Global Adaptation Index<sup>7</sup>, reflecting its vulnerability to climate change and

<sup>1</sup> World Bank Group, 2019. <https://data.worldbank.org/country/CO>

<sup>2</sup> World Bank, 2016. Country Partnership Framework for the Republic of Colombia for the Period FY16-21.

<https://documents1.worldbank.org/curated/en/940691468184792587/pdf/101552-CPF-P155964-R2016-0053-IFC-R2016-0054-MIGA-R2016-0014-Box394872B-OUO-9.pdf>

<sup>3</sup> <https://data.worldbank.org/country/colombia>

<sup>4</sup> See council for Economic and Social Policy (CONPES) “Policy of Economic Reactivation and Sustainable and Inclusive Growth” Report No. 4023 (February 2021)

<sup>5</sup> <https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?end=2021&locations=CO&start=2018>

<sup>6</sup> Idem

<sup>7</sup> <https://gain.nd.edu/our-work/country-index/> In the ND-GAIN index low scores reflect more vulnerability.



other global challenges. The country routinely experiences damaging droughts and floods. For example, the heavy rains in 2010 and 2011, caused over US\$6 billion in damage to crops and infrastructure. Temperatures have increased by at least one degree in the last 20 years, and they could gradually increase by 1.88 centigrade by 2050.<sup>8</sup> The precipitation patterns also exhibit a high degree of inter-annual variability, while the Niño and the Southern Oscillation brings droughts and warmer weather<sup>9,10</sup>. The economically important coffee industry and milk production are highly vulnerable to rising temperatures and hydrologic events. Furthermore, water provision, also coming from the Amazon, is heavily reliant on glacier melt, which scientists project to continue receding under rising temperature scenarios.<sup>11</sup> On average, rural households' income losses due to climate change are expected to be around 1.8 times higher than those of urban households.<sup>12</sup>

### Sectoral and Institutional Context

- 3. Colombia aims to become carbon neutral by 2050 and to achieve this has introduced bold environmental regulations<sup>13</sup>.** In 2017, the Government of Colombia (GoC) approved Decree 926<sup>14</sup> establishing the rules and conditions that allow certain entities to offset their carbon tax obligation under the Carbon Tax Law (Law 1819). This has created domestic demand for Emission Reductions (ERs) generated from Reduced Emissions from Deforestation and forest Degradation (REDD+)<sup>15</sup> and forestry plantation projects.<sup>16</sup> Colombia has also declared its intention to participate in cooperative approaches under Article 6 of the Paris Agreement<sup>17</sup>.
- 4. The GoC has selected the Orinoquia region to implement sustainable low-carbon forest and agriculture landscape management, which will help advance implementation of the Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC).** The Orinoquia region, which covers 25.5 million hectares or approximately 22 percent of the national territory, comprises four departments (Meta, Casanare, Vichada, and Arauca) and 59 municipalities. It houses around 1.7 million inhabitants (in 2018), with a rural population historically displaced by the armed conflict that has affected the country. The region hosts critically important natural resources with associated environmental services underpinning key sectors of its economy. It comprises a large diversity of ecosystems, including the area of the Andean Piedmont, the extensive tropical dry savannas, the seasonal flooded savannas, and the transition areas with the Amazon biome. The region also contains the largest number of wetlands in the country, and it is part of the Orinoco macro basin, the third largest river in the world. Despite the abundance of natural resources, the Orinoquia region presents multidimensional poverty levels above the national

<sup>8</sup> World Bank, 2021. Climate Risk Country Profile for Colombia. [https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15520-WB\\_Colombia%20Country%20Profile-WEB%20%283%29.pdf](https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15520-WB_Colombia%20Country%20Profile-WEB%20%283%29.pdf)

<sup>9</sup> La Niña is associated with floods and cooler weather, particularly between June and August.

<sup>10</sup> Government of Colombia, 2017. Third National Communication to the United National Framework Convention on Climate Change.

<sup>11</sup> World Bank Group, 2021. Climate Risk Country Profile for Colombia [https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15520-WB\\_Colombia%20Country%20Profile-WEB%20%283%29.pdf](https://climateknowledgeportal.worldbank.org/sites/default/files/2021-07/15520-WB_Colombia%20Country%20Profile-WEB%20%283%29.pdf)

<sup>12</sup> World Bank. 2021. Draft Colombia Country Climate and Development Report.

<sup>13</sup> <https://e2050colombia.com/>

<sup>14</sup> <https://www.minambiente.gov.co/wp-content/uploads/2022/01/13.-Decreto-926-de-2017.pdf>

<sup>15</sup> REDD+ stands for Reduction of Emissions from Deforestation, Forest Degradation, the role of forest conservation, sustainable forest management, and carbon stock enhancement. REDD+ is the United Nations Framework Convention on Climate Change (UNFCCC) mechanism to reduce GHG emissions from the above-mentioned categories.

<sup>16</sup> Carbon Trust, EDF, and IETA, 2018. Colombia: An Emissions Trading Case Study.

[https://www.ieta.org/resources/Resources/Case\\_Studies\\_Worlds\\_Carbon\\_Markets/2018/Colombia-Case-Study-2018.pdf](https://www.ieta.org/resources/Resources/Case_Studies_Worlds_Carbon_Markets/2018/Colombia-Case-Study-2018.pdf)

<sup>17</sup> Government of Colombia. Nationally Determined Contribution to UNFCCC's Paris Agreement on climate change.

<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Colombia%20First/NDC%20actualizada%20de%20Colombia.pdf>



average for urban (32.3 versus 27 percent) and rural populations (41.2 versus 39.9 percent) in the 2018–2019 period.<sup>18</sup> Also, informality in land tenure affects around 45.9 percent of the region’s territory (approximately 9.4 million hectares).

5. **The Orinoquia region is responsible for 12.7 percent of the national greenhouse gas (GHG) net emissions, and the Agriculture, Forestry and Land Use (AFOLU) sector is the major determinant of the region’s emissions (70.4 percent or 19.3 M tCO<sub>2</sub>e)<sup>19</sup>.** In 2014, around two-thirds (62.5 percent) of the total net GHG emissions from the AFOLU sector in Orinoquia were due to land-use change, 21.8 percent to direct emissions from livestock (enteric fermentation), and the remaining 15.7 percent to other GHG emission sources not associated to land. The conversion of natural forests to grasslands was the most important source of GHG emissions, followed by enteric fermentation from cattle, and forest degradation.<sup>20</sup>
6. **The main direct driver of GHG emissions in Orinoquia is the agriculture frontier expansion.** Natural forest cover is replaced by grasslands to establish extensive cattle ranching and/or for land grabbing purposes. Forest is also replaced to establish agriculture at different scales, including large scale agro-industry and illicit crops. The underlying drivers include a complex combination of factors that influence land-use decisions, including socio-economic, cultural, technological, political, institutional, and legal. Demographic pressures have particularly increased since 2010 reflecting a reduction in the armed conflict and the signing of the Peace Agreements in 2016. Several land restitution programs, programs for land allocation to ex-combatants, and plans and objectives for increased agricultural development in the region are attracting displaced people and migrants to the Orinoquia.<sup>21</sup>
7. **Promoting sustainable low-carbon forest and agricultural landscapes is important to sustain Orinoquia’s natural wealth as a source of sustainable development, economic growth, and social inclusion.** Together, agriculture, livestock, forestry, and fishing are the second most important sector of the region’s economy, which contributed 9.5 percent to the country’s GDP during the 2005–2020 period<sup>22</sup>. The 2018–2040 Regional Integrated Climate Change Plan for Orinoquia (PRICCO) outlines priority climate change mitigation and adaptation measures to address sources of GHG emissions in AFOLU.<sup>23</sup> The GoC has identified six high deforestation hot spots in Orinoquia to implement some of these climate change mitigation interventions and has introduced climate change determinants to promote climate-smart investments in Zones of Interest for Economic and Social Development in Rural Areas (ZIDRES)<sup>24</sup>.

#### Relationship to CPF

8. **The proposed BioCarbon Emissions Reduction Program Orinoquia (BioCarbon ERP Orinoquia) is in line with the World Bank Group’s Country Partnership Framework (CPF) 2016–2021 (Report No. 101552-CO), discussed by the**

<sup>18</sup> DANE, 2019-2018. Índice de Pobreza Multidimensional por Departamento 2018-2019.

<sup>19</sup> IDEAM, PNUD, MADS, DNP, CANCELLERÍA. 2018. Segundo Reporte Bienal de Actualización de Colombia a la Convención Marco de las Naciones Unidas para el Cambio Climático (CMNUCC). IDEAM, PNUD, MADS, DNP, CANCELLERÍA, FMAM. Bogotá D.C., Colombia.

<sup>20</sup> dem.

<sup>21</sup> For example, the Agricultural Frontier, Zones of Interest for Rural, Economic and Social Development (ZIDRES), the Orinoquia Master Plan, Colombia Siembra, among others.

<sup>22</sup> DANE. Cuentas Nacionales actualizadas al 25 de junio de 2021.

<sup>23</sup> CIAT & CORMACARENA. 2019. Plan Regional Integral de Cambio Climático para la Orinoquia. CIAT publicación No. 438. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia.

<sup>24</sup> ZIDRES are remote areas, with low population density and limited infrastructure and where agriculture, cattle ranching, or fisheries productive industries can be developed in partnership between large businesses and small and medium producers that do not own land.



**Board of Executive Directors on April 7, 2016.** The ERP would contribute to its Pillar 1, which seeks to enhance natural resource management capacity in targeted regions. The ERP also aligns with a CPF cross-cutting theme “Constructing the Peace” by promoting an approach that responds to the dual goal of peacebuilding and environmental sustainability. The proposed ERP builds on the Forest Carbon Partnership Facility (FCPF) Readiness Project (P120899). It will have synergies with an Advisory Services and Analytics (ASA) called Country Climate and Development Report (CCDR, P178104) and complement undergoing World Bank financed projects such as the Orinoquia BioCarbon Project (P160680); the Initiative for Sustainable Forest Landscapes (ISFL) funded Developing Climate-smart Agricultural Supply Chains ASA (P173540); the Orinoquia Integrated Sustainable Landscape Global Environmental Facility Project (P167830); the Forest Conservations and Sustainability in the Heart of Colombian Amazon GEF Project (P171227); and the Multipurpose Cadaster Project (P162594) and its Additional Financing (P172972).

9. **The BioCarbon ERP Orinoquia would also contribute to the World Bank Group twin goals and the BioCarbon Fund (BioCF) ISFL objectives, particularly on helping rural communities to address poverty and develop sustainability while simultaneously reducing land based GHG emissions.** The BioCarbon ERP Orinoquia would help convene resources programmatically for AFOLU GHG emissions management, seeking to harness the potential of forested and agriculture landscapes and other land-uses to help reduce poverty equitably by investing in natural wealth and resilient, low-carbon growth. The ERP would also help implement the World Bank Group’s Climate Change Action Plan (2021–2025), particularly by supporting climate-smart agriculture through robust policies and technological interventions and Nature-Based Solutions through REDD+.
10. **The BioCarbon ERP Orinoquia aligns with Colombia’s development goals defined in the Colombian National Development Plan (2018–2022) and the Nationally Determined Contribution (NDC) to the climate change Paris Agreement.** The National Development Plan seeks to foster strategies and economic instruments to enhance productive sectors sustainability, while promoting innovation and reduced environmental impacts. It also aims to slow down deforestation by promoting land-use management, among other practices. The BioCarbon ERP Orinoquia would contribute to implementing the NDC by addressing cross-sectoral sources of GHG emissions in the AFOLU sector through implementing activities in the National REDD+ Strategy and PRICCO.

### C. Proposed Development Objective(s)

11. Generate payments to the Program Entity for measured, reported, and verified Emission Reductions (ERs) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), agriculture, and other land use sectors that meet the GHG accounting requirements of the BioCF ISFL in the Orinoquia region of Colombia and to distribute ER payments in accordance with an agreed Benefit Sharing Plan (BSP).

#### Key Results (From PCN)

12. The achievement of the Project Development Objective (PDO) would be measured through the following indicators:
  - (a) Volume of CO<sub>2</sub>e Emission Reductions that have been measured and reported by the Program Entity, verified by a Third Party (tCO<sub>2</sub>e);
  - (b) Payments made and/or generated for CO<sub>2</sub>e Emission Reductions generated by the BioCarbon ERP Orinoquia (US\$); and



- (c) Emission Reductions payments distributed in accordance with the agreed BSP (Yes/No).

#### D. Concept Description

13. **The proposed BioCarbon ERP Orinoquia consists of an Emission Crediting Transaction<sup>25</sup> through an Emission Reductions Payment Agreement (ERPA) for the delivery of, and payment for ERs and subsequent distribution of payments according to a BSP.** The transaction is expected to be between the Republic of Colombia, the Program Entity, represented by the Ministry of Agriculture and Rural Development (MADR), which will host the Program Implementation Unit (PIU), and the World Bank, as the Trustee and implementing agency of the BioCF ISFL. The ERPA shall also allow the GoC to sell ERs to any buyer with the highest price offer.
14. **The strategy to promote generation of ERs under the BioCarbono ERP** currently includes a subset of 41 mitigation measures from the NDC and the National REDD+ Strategy, which are a combination of enabling environment activities and direct measures. The direct measures include REDD+ programs/projects, projects for Payment for Environmental Services (PES), climate-smart agriculture practices or technologies (see Annex 1). The enabling environment activities include strengthening coordination and participation of the private/public sector, promoting of integrated land-use planning, land-tenure formalization, and private stakeholders' adoption of low-carbon and sustainable approaches, technologies, and practices through financial and non-financial incentives, including zero-deforestation agreements in key commodities. The GoC will implement these measures through existing/planned initiatives (see Annex 2).
15. **Expected ERP beneficiaries.** The BSP, currently under development, will identify eligible beneficiaries and outline the arrangements by which they will receive monetary or non-monetary carbon benefits.

#### Carbon finance aspects related to the BioCarbon ERP Orinoquia

16. **ER payments for an initially committed ISFL financing of up to US\$50 million for verified carbon performance would be paid until 2030.** These payments would be available once the BioCarbon ERP Orinoquia achieves, verifies, and reports on the achieved GHG ERs. If the ERP generates ERs beyond the volume purchased by ISFL, they may be sold to other buyers, generating extra revenues for the ERP.
17. **All the information required for the carbon operations are summarized in the Emission Reduction Program Document (ERPD),** which is elaborated by the GoC and reviewed by the ISFL Fund Management Team. The ERPD includes the baseline against which the ERs would be created, the strategy to reduce the emissions as well as the related financing plan, the BSP, and documentation related to carbon rights and the ability for the GoC to transfer ER titles.
18. **The ERPD is under third party review for quality assessment.** The GHG elements of the ERPD are advanced and undergoing technical assessment by Scientific Certification Systems, Inc. (SCS) Global Services as an independent third party. The non-GHG elements (e.g., program design, financing, legal title, environmental and social risk management, non-carbon benefits, and benefit sharing arrangements) are under preparation for review by the World Bank and SCS Global Services as part of the BioCF ISFL approval process. The delivery of the final document in English is expected by the end of June 2022.
19. **ER price for Contract ERs and Additional ERs would be negotiated during the ERP preparation.** Possible ERPA phases

<sup>25</sup> For further information, please see the World Bank Guidance for Emission Crediting Transactions:

<https://worldbankgroup.sharepoint.com/sites/ppfonline/PPFDocuments/b347b37d609e4d2c8ccfb72d8d2e9c9.pdf>



and the ER Prices will be discussed between the ISFL and the GoC prior to Appraisal.

- 20. **Carbon accounting and nesting framework.** Colombia supports a hybrid model for carbon accounting and issuance of ER units, in which jurisdictional governmental ER programs co-exist with private sector led REDD+ projects. The GoC will prepare nesting arrangements and would discuss with REDD+ projects to define partnering sub agreements if possible. The BioCarbon ERP Orinoquia would be nested into a national system with a baseline consistent with the NDC and the National Forest Reference Emissions Level (NFREL)<sup>26</sup>, thus in the context of Article 6 of the Paris Agreements, the ERP could contribute to the NDC beyond the ERs generated under the ISFL.
- 21. **Registry of the BioCarbon ERP Orinoquia.** The BioCarbon ERP Orinoquia would be formally registered under the National Registry of Greenhouse Gases Reductions (RENARE) triggering the implementation of the defined national nesting arrangements.<sup>27</sup> The expectation is that the BioCarbon ERP Orinoquia would be registered in RENARE under two initiatives: an agricultural program and a REDD+ program.

**ERP components**

- 22. The BioCarbon ERP Orinoquia will have three components:
- 23. **Component 1:** Monitoring, Reporting and Verification (MRV) and payment of the generated ERs. Categories as Deforestation, Afforestation, Enteric Fermentation, among others, and the associated ERs within the BioCarbon ERP Orinoquia accounting area would be measured annually by the institutions responsible for MRV. The frequency of ER measurements, reporting to the BioCF, and payment schedule is yet to be defined. The accounting period would end in December 2030, and the final monitoring reports, verification, and payments would go until 2031 (World Bank Fiscal Year 32).
- 24. **Component 2:** Distribution of ER payments as per an agreed BSP. The BSP is under preparation by a firm contracted by the BioCarbon Orinoquia Project and entails a highly participatory consultation process led by the respective Project Implementation Unit.
- 25. **Component 3:** This component will finance, through a grant, the BioCarbon ERP Orinoquia for operating costs, technical assistance, and capacity building from ERPA signing until the first ER payment. It could cover the time of a Program Coordinator, Environmental and Social Specialists, and MRV Specialists, as well as office equipment.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	TBD
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

**26. The preliminarily identified environmental risks of the BioCarbon ERP Orinoquia include reversals (e.g., carbon**

<sup>26</sup> <https://redd.unfccc.int/info-hub.html>

<sup>27</sup> A similar structure exists for Amazonia Vision, where in RENARE the Amazon Biome Forest Reference Emission Level is used as the Program Baseline, but where the REDD+ Early Movers payment program only rewards ERs below an average of historic deforestation albeit with consistency with other parameters of the NFREL.



stored in planted forests can be released due to natural disturbances such as fire, floods, pests, and diseases) **and displacements/leakages** (e.g., a rise of emissions outside of the ERP area due to ERP activities, such as land-use regulation development or enforcement to avoid deforestation), which may impact biodiversity and forest dependent livelihoods. Agrochemical related pollution is also a preliminarily identified risk, linked with the adoption of technology packages for improved production in selected agriculture value chains. Increased water use might also result from increased production induced in the selected value chains.

27. **The preliminarily identified social risks of the BioCarbon ERP Orinoquia are associated with the complex context in which the ERP is implemented**, where there is presence of vulnerable indigenous peoples, Afro-Colombians, and farmer communities, and a legacy of inequitable access to land use, land rights, natural resources, and decision-making processes; increased activity of organized crime and illegal armed groups in the region that has long been affected by violence and crime, which poses a safety risk for ERP officials and communities; the informality of land tenure, which may restrict investment and implementation of some of the ERP activities for beneficiaries and lead to conflicts; and potential restriction of access to natural resources and risks of inadequate communication and engagement with vulnerable communities.

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**APPROVAL**

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