



Páramos for Life

Part I: Project Information

GEF ID

10361

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI☐ CBIT☐ NGI**Project Title**

Páramos for Life

Countries

Colombia

Agency(ies)

UNDP

Other Executing Partner(s)

Ministry of Environment and Sustainable Development (MADS)

Executing Partner Type

Government

GEF Focal Area

Biodiversity

Taxonomy

Payment for Ecosystem Services, Financial and Accounting, Biodiversity, Focal Areas, Mainstreaming, Agriculture and agrobiodiversity, Protected Areas and Landscapes, Terrestrial Protected Areas, Productive Landscapes, Biomes, Wetlands, Tropical Rain Forests, Paramo, Conservation Finance, Species, Threatened Species, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approach, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Stakeholders, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Type of Engagement, Participation, Consultation, Information Dissemination, Private Sector, Individuals/Entrepreneurs, Beneficiaries, Local Communities, Indigenous Peoples, Communications, Awareness Raising, Behavior change, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Capacity Development, Access to benefits and services, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Knowledge Generation, Learning, Theory of change, Adaptive management, Indicators to measure change, Knowledge Exchange

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

332,782

Submission Date

10/7/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	GET	1,469,564	5,878,256
BD-2-7	GET	2,033,404	8,133,616
Total Project Cost (\$)		3,502,968	14,011,872

B. Indicative Project description summary

Project Objective

To conserve páramo ecosystems through the promotion of sustainable systems for biodiversity conservation, ecosystem and agro-biodiversity services, and socio-environmental conflict management within the páramo complexes of Pisba, Santurbán, and Puracé, in accordance with the provisions of the Páramos Law approved in 2018 .

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1) Governance framework for the conservation and sustainable use of biodiversity	Technical Assistance	1) Capacity of three (3) management coordination committees (one for each páramo complex) with the participation of institutions and communities, and a gender focus, strengthened as measured through the UNDP capacity development scorecard.	1.1) Capacity-building program with a gender and ethnic focus implemented, includes: a) Conflict resolution strategy and democratic dialogue for managing páramos; b) Institutional and community stakeholder training plan, including indigenous peoples in the Puracé Páramo Complex, for participation	GET	150,000	600,000

2) Increase participation of local communities in monitoring of biodiversity, ecosystem services, and the management of the Santurbán, Puracé, and Pisba páramos as measured through one survey per year per páramo complex.

participatory planning and management of the páramos using an integrated landscape management approach; and,

c) Action plan for operationalizing management coordination committees for the páramo complexes, including a differential working approach with indigenous peoples in the Puracé páramo Complex.

2.1) Three (3) community monitoring networks of páramos with a gender and ethnic focus operationalized, include:

a) Evaluation

3) Consideration to the protection and management of páramos is mainstreamed in land use and development planning instruments, measured by implementation of: a) Three (3) Develop

...ed by implementation of a) Three (3) Development Plans at the departmental level updated (Santander, Cauca, and Boyacá); b) Three (3) 4-year Action Plans of Regional Environmental Authorities – CARs (CDMB, CRC, and Corpoboyacá)[1] updated; and c) Five (5) Municipal Development Plans (municipalities of Tona, Vetas, Tasco, Gámeza, and Puracé) updated.

4) Increased participation of indigenous people in páramos conservation Puracé evidenced by: One (1) planning instrument with biodiversity conservation objectives considering the traditional views of the Kokonuko indigenous group.

(Outcome indicators will be reviewed and updated during the PPG phase)

[1] CDMB: Regional Autonomous Corporation for the Defense of the Bucaramanga Plateau; CRC: Cauca Regional Corporation; Corpoboyacá: Boyacá Regional Autonomous Corporation.

n of the current status of biodiversity conservation and ecosystem services (e.g., water supply and regulation, biodiversity habitat, microclimate regulation) in three prioritized páramo complexes;

b) Protocols for collecting, processing, and use of information, including a Special Chapter for Indigenous Communities in the Puracé páramo complex; and,

c) Mechanisms of articulation with existing information and monitoring systems at the national

nal and sub national levels (e.g., Biodiversity Information System [SIB], High Mountain Monitoring System).

3.1) Guidelines developed for incorporating protection and management measures of páramos into subnational (Regional Autonomous Corporations - CARs, and Departments) and municipal (Development Plans 2024-2028) planning instruments.

4.1) Roundtables with the indigenous peoples implemented for participatory management of the Puracé páramo complex established.

2) Biodiversity conservation and improved connectivity and ecosystem and services	Technical Assistance	1) 251,254 hectares (ha) of páramo protected by conservation management strategies (i.e., 54,760 in Puracé/Key Biodiversity Area[KBA]; 106,241 ha in Pisba/KBA; and 61,241 ha in Santurbán)[1].	1.1) Three (3) participatory management plans developed and implementation begun for the delineated páramo complexes	GET	1,800,000	7,200,000
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2) Management of two national protected areas (PAs) (Pisba National Park: 45,000 ha; and Puracé National Park: 83,000 ha) improved as determined by: a) 15% increase in the management effectiveness scorecard (METT) focusing on protected area regulations (land tenure assessments), law enforcement, resource management (participatory restoration), and security of budget; and b) 10% reduction in the financial gap to cover basic management costs.

3) Enhanced connectivity and recovery of ecosystem services evidenced by: 2,000 ha of páramo under restoration^[2].

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1.2) At least three (3) complementary conservation strategies and/or Territories and Areas Conserved by Indigenous Peoples and Local Communities (TICCA) for indigenous peoples in the Puracé Páramo Complex created and/or strengthened; and/or Nodes of the Civil Society Natural Reserves (RNSC) consolidated.

1.3) Three (3) payment for environmental services (PES) projects, including one with an ethnic focus f

4) Representative populations of key species as per 3 biological groups (e.g., plants, birds, amphibians, among others) monitored and reported in the SIB administered by the Alexander von Humboldt Biological Resources Research Institute (IAVH).

(Outcome indicators will be reviewed and updated during the PPG phase)

[1] Area for the Puracé Páramo Complex is based on Delimitation Resolution No. 180 of February 6, 2018. The areas for the Santurbán and Pisba páramo complexes will be subject to changes derived from the participatory delimitation processes ordered by the Constitutional court. In the case of the Santurbán Páramo Complex, the reference area is based on the study conducted by the Alexander von Humboldt Research Institute (IAVH) for the delimitation process that resulted in Resolution 2090 of 2014, which will be in force until the issuance of the new delimitation resolution.

[2] These actions complement the effort that the Government of Colombia will make in relation to the provisions of Article 2 of the Páramos Law,

or the Puracé Páramo Complex (e.g., carbon sequestration and water storage), one per páramo, piloted.

1.4) At least four (4) community and one (1) indigenous peoples strategies or brigades created to protect against forest fires.

2.1) Management plans for the Pisba National Park and Puracé National Park implemented for the following:

a) operational and technical strengthening for prevention, monitoring, and control;

which establishes that the design and implementation of ecological restoration programs in those areas altered by human or natural activities must be guaranteed.

b) Participatory ecological restoration based on existing High Mountain restoration protocols developed through other GEF initiatives (GEF Project ID 4610); and

c) Land tenure assessment of the Pisba National Park and Puracé National Park in prioritized municipalities.

2.2. Two financial mechanisms (i.e., municipal revenues, environmental compensation, and water use rates) implemented, one per national park (i.e., Puracé and Pisba).

3.1) Restoration plan developed for strategic areas within each prioritized páramo complex, including working with subsistence farmers and indigenous peoples, the latter in the Puracé Páramo Complex.

3.2) Landscape management tools (LMT) (micro-corridors, forest enrichment, live fences, windbreaks) implemented at the farm level restore ecosystem services, and contribute to enhance connectivity, promote adaptation to climate change, and incorporate traditional

rate traditional knowledge and use a gender and ethnic focus.

3.3) 70 individual and/or collective restoration agreements reached with subsistence farmers and indigenous peoples, the latter in the Puracé Páramo Complex.

4.1) Conservation strategies for key páramo species defined include:

a) Development, updating, and/or implementation of conservation plans;

b) Monitoring platform strengthened: SIB and the High

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3) Transition to activities that are compatible with the conservatio n and sustainable use of biodiversity in the Purace, Pisba and Santurbán páramo landscapes	Technical Assistan ce	<p>1) 2,200 ha of páramos managed under integra ted and biodiversity management system, as i ndicated by:</p> <p>a) 10% of the total area (ha) of the paramo und er agriculture in the prioritized municipalities in process of biodiversity-friendly production con version[1] and/or substitution[2];</p> <p>b. 10% of mines (gold, coal, sulphur, etc.) close d[3] and/or replaced with biodiversity-friendly p ractices (i.e., substitution).</p>	<p>1.1) Stra tegy for agricultu re produ ction co nversion and sub stitution and/or mining a ctivity su bstitutio n with a n integra ted land scape i mpleme nted incl udes:</p> <p>a) Evalu ation of agricultu re and m ining act ivities an d identifi cation of conversi on and/ or substi tution ac tions;</p> <p>b) Inters</p>	GET	1,236,160	4,944,640
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2) 560 members of local communities in the páramos change their production practices and actively engaging in biodiversity friendly practices such as ecotourism and agrotourism, and a grobiodiversity with native species[4].

(Outcome indicators will be reviewed and updated during the PPG phase)

[1] These actions complement the efforts that the Colombian Government will make in relation to provisions in Article 10 of the Páramos Law, which indicate that programs will be implemented for the substitution and conversion of high-impact agricultural and small traditional mining activities that were being developed prior to June 16, 2011, prior definition and that are within the delimited páramo area, in order to guarantee moorland conservation and the provision of ecosystem services. The conversion of agricultural activities in páramos is understood as a management strategy for the change of agricultural systems, in which current production models not compatible with the paramo ecosystem are progressively transformed towards agroecological production models or systems of clean and/or traditional agriculture (MADS Resolution 886, 2018).

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[2] The substitution of production practices is understood as the progressive change or replacement of agricultural and/or other production activities not compatible with the paramo ecosystem, by other ecologically-friendly production activities. These new activities should maintain or improve the economic conditions for the local communities and the sustainability of the ecosystem (MADS Resolution 886, 2018).

[3] Article 5 of the Páramos Law establishes that the development of mining and hydrocarbon exploration and exploitation activities is prohibited, as well as the construction of hydrocarbon refineries; therefore, the substitution activities supported by this project contribute to the effort of the Government of Colombia in the implementation of biodiversity-friendly actions of the páramos and its ecosystem services.

[4] Working with local communities is a key aspect in the conservation of the páramos; therefore, support will be provided to the Government of Colombia to implement actions for the development of knowledge, provide technical assistance, technological transfer and innovation of economic activities in the páramos, as part of substitution and conversion activities for agriculture and small traditional mining, as well as for the strengthening, conservation, and protection of ancestral and traditional knowledge, as fundamental elements for the management and conservation of the páramos (Article 11 of the Páramos Law). The Páramos Law also indicates that the traditional inhabitants of the páramo may become managers of the páramo, who will develop activities from the integral management of these ecosystems, as well as for monitoring and control with the support and financing of the agencies in accordance with the guidelines and strategies defined for this purpose in the Páramo Management Plan (Article 16).

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onservat ion and sustaina ble use a greemen ts for im plement ation of activities for conv ersion a nd/or su bstitutio n of agri culture a nd minin g activiti es signe d with su bsistenc e farmer s and in digenou s people s, the lat ter in the Puracé P áramo C omplex.
2.1) Biod iversity a nd agro- biodiver sity prod ucts (e. g., native potato) s trengthe ned thro ugh pro motion a

	nd acces s to mar kets.	
	2.2) Eco nomic, fi nancial, and mar ket mec hanisms impleme nted inc entivize t he susta inable us e of agro -biodiver sity in th e páram os, with a gender and ethn ic focus;	
	2.3) Rur al extens ion progr am impl emented for susta inable pr oduction and the promoti on of su stainabl e value c hains, w hich incl udes the tradition al knowl	

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4) Knowledge management, communication, and monitoring and evaluation (M&E)	Technical Assistance	1) Knowledge and lessons learned systematized and disseminated through at least one (1) document and one (1) institutional network (CARs) for the replication and upscaling of successful experiences in other páramo complexes. <i>(Outcome indicators will be reviewed and updated during the PPG phase)</i>	1.1) One (1) pilot network to exchange information for the three páramo complexes and other conservation initiatives in the country's páramos established in line with the Páramos Law. 1.2) One (1) community communication best practices program with an ethnic and gender focus implemented. 1.3) Indigenous Peoples Plan, Gender Action Plan, and the M&E Plan implemented.	GET	150,000	600,000
Sub Total (\$)					3,336,160	13,344,640
Project Management Cost (PMC)						
GET					166,808	667,232

Sub Total(\$)		166,808	667,232
Total Project Cost(\$)		3,502,968	14,011,872

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of the Environment and Sustainable Development (MADS)	Grant	Investment mobilized	4,500,000
Government	Ministry of the Environment and Sustainable Development (MADS)	In-kind	Recurrent expenditures	400,000
Government	Natural National Parks of Colombia (PNN)	Grant	Investment mobilized	250,000
Government	Natural National Parks of Colombia (PNN)	In-kind	Recurrent expenditures	250,000
Government	Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM)	Grant	Investment mobilized	1,200,000
Government	Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM)	In-kind	Recurrent expenditures	23,636
Government	Alexander von Humboldt Biological Resources Research Institute (IAVH)	In-kind	Recurrent expenditures	411,630
Government	Regional Autonomous Corporation for the Defense of the Bucaramanga Plateau (CDMB)	Grant	Investment mobilized	1,283,403
Government	Regional Autonomous Corporation for the Defense of the Bucaramanga Plateau (CDMB)	In-kind	Recurrent expenditures	464,000
Government	Cauca Regional Corporation (CRC)	Grant	Investment mobilized	1,273,580
Government	Cauca Regional Corporation (CRC)	In-kind	Recurrent expenditures	214,000

Government	Boyacá Regional Autonomous Corporation (Corpoboyacá)	Grant	Investment mobilized	1,447,623
Government	Boyacá Regional Autonomous Corporation (Corpoboyacá)	In-kind	Recurrent expenditures	294,000
GEF Agency	UNDP	Grant	Investment mobilized	2,000,000
Total Project Cost(\$)				14,011,872

Describe how any "Investment Mobilized" was identified

a Heritage Colombia Program (HECO): Supporting the new integrated Colombian approach to territorial governance in sustainable, productive and resilient landscapes; funding from the European Union secured (2019). b Project Integrated Water Resource Management of the Tota Lake Basin, funding from the French Cooperation Agency secured (2019). c Heritage Colombia Program (HECO): resources originating from the carbon tax approved by the Colombian Government (Tax Law 1819/2016, Article 223) to fund HECO. d Enhancing Adaptive Capacity of Andean Communities through Climate Services (ENANDES) Project. e Investments through 4-year Action Plans. f Project Implementation of actions in the framework of the adaptation to climate change and risk management Stage 1: Department of Nariño.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Colombia	Biodiversity	BD STAR Allocation	3,502,968	332,782	3,835,750
Total GEF Resources(\$)					3,502,968	332,782	3,835,750

E. Project Preparation Grant (PPG)

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Colombia	Biodiversity	BD STAR Allocation	150,000	14,250	164,250
Total Project Costs(\$)					150,000	14,250	164,250

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
128,000.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
128,000.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Pisba National Park	145	National Park	45,000.00						
Puracé National Park	141	National Park	83,000.00						

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2000.00	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
2,000.00			

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
251254.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
251,254.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Documents (Please upload document(s) that justifies the HCVF)

Title

Submitted

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	225			
Male	225			
Total	450	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

* Purace National Park: 83,000 ha; Pisba National Park: 45,000 ha. ** The target area (ha) of landscapes under improved practices is 10% of the total area (ha) of the paramo under agriculture in the prioritized municipalities in process of biodiversity-friendly production conversion and/or substitution. The total area (ha) of the three paramo landscapes currently under agriculture in the prioritized municipalities will be verified during the PPG using a land use/land cover assessment at map scale 1:100,000 and field proof.

Part II. Project Justification

1a. Project Description

1a. *Project Description.*

1) The global environmental problems, root causes, and barriers that need to be addressed (systems description).

1. The project will deliver global environment benefits (GEBs) by mitigating threats to biodiversity in three páramo complexes and implementing a strategy that will enable the following outcomes: a) the conservation of biodiversity, ecosystem services, and agro-biodiversity through effectively managed páramo landscapes and protected areas (PAs); b) the restoration of degraded areas; and c) the conversion and substitution of harmful agricultural and mining activities to biodiversity-friendly production practices with the active participation of local communities and the private sector.

2. The páramo is a various vegetation type or ecosystem that occurs between the upper limit of continuous, closed-canopy forest (i.e., forest line or timberline) and the upper limit of plant life (i.e., snow line). It is characterized by tussock grasses; large rosette plants; shrubs with evergreen, coriaceous, and sclerophyllous leaves; and cushion plants.[1] In Colombia, this vegetation type is scattered along the crests of the highest mountain ranges or on isolated mountaintops between approximately 3,000 meters (m) and 5,000 m. The páramo ecosystem covers 2,906,136 hectares (ha) of the country, which constitute 50% of all the páramos in the world and 2.5% of Colombia's entire land area.[2] Páramos play a fundamental role in sustaining the lives of millions of Colombians, providing essential ecosystem services such as water production for human consumption, irrigation, and hydropower generation. Páramo soils and vegetation also provide efficient forms of carbon storage and sequestration.

3. Páramos have a generally cold and humid or dry climate with sudden changes in the weather, and a diurnal fluctuation in temperature from below freezing to as much as 30°C. Because the páramo is a high-elevation tropical ecosystem, certain physical, chemical, and climatic features characteristic of the páramos affect the biological functioning of the organisms that live within them; these organisms have evolved adaptations that favor temperature insulation and the maintenance of a positive water balance under the severe conditions of the páramo environment. The páramo is considered the fastest and coolest evolving biodiversity hotspot[3], and is the floristically richest tropical alpine province, with approximately 5,000 plant species spread over more than 500 plant communities—60% of its flora is considered endemic.[4] Colombia's páramos contain 10% of the total plant biodiversity and 8% of all endemic plant species in the country[5]; many of them have been designated as key biodiversity areas (KBAs). Páramos are usually described based on three vegetation zones, as follows. The Superpáramo is a narrow zone of vegetation growing on rocky scree and coarse, sandy soils below the snow line from about (4,000-) 4,500-4,800(-5,000) m altitude, and is home to very small, clumped or scattered plants. The Grass Páramo (or "proper páramo") extends from approximately 3,500-4,100(-4,400) m with a continuous plant cover, and is the common area of the genus *Espeletia*, which symbolizes páramo vegetation with its columnar, woolly, rosette-plant growth form. Finally, the Subpáramo is lowest zone ([2,800-]3,000-3,500 m elevation), is the most diverse floristically, and is made up of elements from the forest below and the grass páramo above.[6] Páramos serve as habitat for a wide variety of rare and threatened species, such as the mountain tapir (*Tapirus pinchaque* – EN), the spectacled bear (*Tremarctos ornatus* – VU), the northern tiger cat (*Leopardus tigrinus* – VU), the yellow-eared parrot

(*Ognorhynchus icterotis* – EN), the black-and-chestnut eagle (*Spizaetus isidori* – EN), the Andean condor (*Vultur gryphus* – NT), and the giant antpitta (*Grallaria gigantea* – VU); frog species such as the *Atelopus petruizi*, *A. eusebianus*, and *A. simulatus*, which belong to the most threatened genus of amphibians in the world (CR); and plant species such as the *Passiflora cremastantha* (CR) and *Juglans neotropica* (EN).

4. Colombia has made important efforts to protect the páramo ecosystem. Forty-five percent (1,297,450 ha) of the Colombian páramos are included in the National Protected Areas System (SINAP), and 23 out of 56 protected areas (PAs) that comprise the National Park System include páramo ecosystems within their boundaries. In addition, the Colombian government has recognized the importance of páramos through policies, laws, and regulations beginning in at least the 1970s, including the Political Constitution (1991) and Law 99 of 1993. In addition, the National Development Plan 2010-2014 (Law 1450 of 2011) set forth that the páramo ecosystems would not be subject to activities related to agriculture, fisheries, or mining, and that the páramo ecosystems would be delineated by the Ministry of the Environment to a scale of 1:25,000, with support from technical, economic, social, and environmental studies as part of a strategy to protect them and regulate land use, as well as restrict human activities that may threaten them. In a complementary manner, Decree 3570 of 2011 assigned the Regional Autonomous Corporations (CARs, in Spanish) the authority to develop these studies. More recently, the Law of Integrated Management of Páramos in Colombia (Law 1930 of 2018) sets forth that the páramos are strategic ecosystems and establishes directives to ensure their integrity, preservation, restoration, sustainable use, and knowledge generation. This law stipulates that the páramos are areas under special protection that integrate biological, geographic, geologic, and hydrographic components, as well as social and cultural aspects, and recognizes their strategic importance for providing water resources and the conservation of the country's biodiversity. In addition, the majority of the land use planning instruments regulated through the Law of Territorial Development (Law 388 of 1987) enforced at the municipal level, sees the páramo as an ecosystem that provides services for the lower areas and which contains high levels of biodiversity; as such it should be conserved and protected. In a similar manner, the Watershed Land Use and Management Plans (POMCA; Decree 1729 of 2002) in areas of the páramo consider this zone as an area under special protection and subject to actions around rehabilitation and regeneration.

5. The Ministry of Environment and Sustainable Development (MADS) is currently working on the development of three ruling initiatives aimed at regulating specific aspects of Law 1930 of 2018, with the following objectives: a) establish the environmental guidelines for the regulation of the substitution program that involves the closure, dismantling, restoration, and reconfiguration of the areas affected by mining activities, and for the labor reconversion or relocation program within the delineated páramo ecosystems; b) establish the guidelines for the development of low-impact and environmentally sustainable agricultural activities; and for the design, training, and implementation of the program for the substitution and conversion of high-impact agricultural activities, and, c) regulate the organization and operation of páramo managers according to Article 16 of Law 1930 of 2018. In addition, the Project will contribute to the implementation of Article 29 of the same Law that mandates that the MADs, together with the National Environmental System (SINA) and academia, must design and implement páramo monitoring systems.

Global environmental problem

6. Despite the above efforts, currently the páramos and their related biodiversity are threatened. Activities such as agriculture, farming, mining, forest plantations, inadequate water management, and urban encroachment pose severe risks to their long-term survival. **Land use change:** Approximately 15% (550,000 ha) of the native vegetation of the 36 páramo complexes described for the country has been replaced by another type of land cover, mainly pastures and crops, comprising 226,000 ha; forest plantations with exotic species now cover 30,000 ha.[7] Initially the páramos were considered by indigenous peoples to be sacred areas; they practiced agriculture only in the lowest lands. It is estimated that the occupation and use of the páramos began 200 years ago, due to the establishment of large farms and settlement of marginalized landless populations. Land use change in the form of **expansion of agriculture**, mainly cultivation of potatoes, is increasingly reaching higher altitudes. Approaching 4,000 masl, potato crop cultivation is responsible for the destruction of natural vegetation and soil erosion. In addition, the use of agrochemicals to grow multiple crops (e.g., potatoes and vegetables), causes changes in the soils' natural properties, a reduction in the ability for the soil to retain moisture, the quality of surface and groundwater, as well as an increase in the weathering of organic

material and loss of soil nutrients. In terms of **extensive cattle ranching**, the effects are related to grazing, soil compaction, fires that affect soil productivity, changes in the composition of páramo vegetation, and contamination and degradation of high mountain lagoons and wetlands.[8] **Mining**: According to National Mining Agency, there are 451 mining licenses currently in effect within these ecosystems, and an undetermined number of informal mines[9], which degrade the páramo vegetation and contaminate its soils and water generated by these ecosystems. The economic importance of the mining sector and the environmental concerns resulting from this activity have created socioeconomic and environmental conflicts in several páramos in Colombia, including the Santurbán, Purace, and Pisba páramo complexes. In addition, **climate change** is likely to cause further impacts on the páramos' functioning, distribution, and species composition. This in turn might jeopardize the lives and livelihoods of human populations that depend upon this ecosystem. It is projected that climate change will have negative impacts on half of Colombia's territory. The Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM) has predicted that the Andean region will present an increase between 2°C and 4°C for the year 2100, compared to the temperatures of the 1961-1990 period. Likewise, for this period it is estimated that the amount of precipitation will decrease. Based on these projections, it has been concluded that by 2030 56% of the páramos in Colombia will have been lost.[10]

7. The underlying drivers of biodiversity loss and transformation of the High Mountain ecosystems in Colombia include increasing social inequality and the internal armed conflict for more than five decades, both of which have resulted in the displacement of the rural poor into marginal lands; reprimarization of the economy (e.g., mining and agricultural commodities); conflicting policies regarding access to and titling of land; and implementation of extensive livestock and agricultural production models. In addition, the lack of political will regarding environmental issues in national and sectorial policies; the undesired effects of macroeconomic policies; conflicts with indigenous rights and traditional knowledge; and conflicts due to a lack of coordination regarding land use planning at the local, subnational, and national levels have also contributed to habitat degradation, changes in land use, pollution, and overconsumption of ecosystems services, among other impacts. Additionally, delineating the páramos has not been a straight forward process. For example, the Santurbán páramo complex was the first to be delineated in the country and served as the reference for the other 35 national páramo complexes. Its delineation was made official in 2014; nevertheless, the delineation was legally challenged, and the Constitutional Court ordered the MADS to perform a new delineation as the original one was done without participation from the affected communities, especially those dedicated to mining activities in the area of the páramo. The presence of rural communities, including indigenous peoples lands in the Puracé Páramo Complex, that depend on production activities performed within the páramos and their surroundings make the delineation in Colombia a complex process that requires active participation and consultation with communities living there, as well as the identification of alternative sustainable production practices for the conversion and/or substitution of existing practices.

8. The **long-term solution** consists of a strategy for the delivery of multiple global environmental benefits (GEBs) through a strengthened governance framework for the conservation and sustainable use of biodiversity in three selected páramo landscapes (Santurbán Páramo Complex, Pisba Páramo Complex, and Puracé Páramo Complex) and the implementation of actions that will enhance species conservation, ecosystem connectivity, and the supply of ecosystem services, as well as the adoption of biodiversity-friendly production practices working closely with the private sector and local communities using a gender-based approach. The dissemination of knowledge and experiences that will result from the implementation of this strategy will contribute to the adoption of best practices for biodiversity and ecosystem services conservation in other páramo landscapes in the country and the region. However, currently there are barriers that prevent this objective from being reached.

Weak governance framework and institutional capacity for the conservation and sustainable use of páramo ecosystems	Colombia has ample legislation for the conservation and sustainable use of páramo complexes; however, there is limited capacity at the national, subnational, and local levels for the implementation of its mandates. Training is needed at institutional and community levels for the planning and management of páramos ecosystems considering the wider landscape; strategies for conflict resolution and dialogue need to be developed to reach social consensus regarding the best options for the conservation and sustainable use of páramo ecosystems. Páramo complexes are governed through multi-stakeholder coordination committees; however, not all páramo complexes have created these committees and the existing ones require strengthening.
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	<p>non-committed, however, not all páramo complexes have created these committees and the existing ones require strengthening of their organizational capacity. In addition, community-based monitoring networks still need to be established to collect, process, and disseminate information regarding the conservation status of the páramo ecosystems and build local support for conservation efforts mandated by the Law of Integrated Management of Páramos in Colombia (Law 1930 of 2018). Protection and management objectives need to be periodically mainstreamed into national, subnational, and local planning tools as governments are replaced every four years and there is no certainty that these objectives are considered during a change in administration or adequately budgeted. Finally, special roundtables with indigenous peoples need to be established and free, prior, and informed consent (FPIC) needs to be achieved for the conservation and sustainable use of páramo ecosystems in indigenous lands in the Puracé Páramo Complex.</p>
Limited availability of tools and information for the conservation of biodiversity and ecosystem services in páramo landscapes	<p>Although the country will continue to make progress in the delineation of páramo ecosystems, most do not have management plans for the implementation of conservation and land use measures that will safeguard the ecological integrity of these areas. The proper landscape management tools (LMTs) and restoration plans that will promote ecosystem connectivity along the páramo vegetation gradient and surrounding forests and contribute to the restoration of degraded areas through conservation agreements with local community members or indigenous and subsistence farmer organizations committed with the conservation of the páramo ecosystem are lacking. Payment for ecosystems services (PES) schemes need to be piloted as part of a long-term strategy that will contribute to ensuring a stable supply of services (e.g., water supply and enhanced carbon stocks). Fire brigades need to be created to combat wildfires, which are a recurring threat to the páramos. The country has made an important effort in developing management plans for national-level PAs, including those PAs within the páramo landscape; however, limitations exist for their implementation. Limited financial resources for PAs that protect páramo and high mountain ecosystems have prevented the following: restoration of degraded areas, improving control and surveillance, and assessing the land tenure and land use issues within the areas, among other issues. Additional financial mechanisms are needed to reduce the financial gap to cover these and other activities and to ensure their long-term financial sustainability. There is a lack of strategies for the conservation of threatened páramo species; existing conservation plans for threatened species (e.g., the Andean Condor, the mountain tapir, the spectacled bear, and the puma) need to be updated and additional plans needed to be developed for those species that still do not have them. Similarly, existing monitoring platforms such as the Biodiversity Information System (SIB) and the High Mountain Monitoring System need to be strengthened so that more reliable and complete information is available for decision makers and managers to ensure the conservation of the páramo biodiversity.</p>
Lack of models to transition to activities that are compatible with biodiversity conservation objectives in páramo landscapes	<p>Strategies for agriculture production conversion and substitution and/or mining activity substitution in páramo landscapes have not been developed or implemented. Páramo delineation legal resolutions mandate that sustainable production alternatives be identified for the conversion and substitution of activities such as non-sustainable agriculture and mining. This can only be possible after detailed evaluations of agriculture and mining activities within the páramo landscapes are conducted and agreements are reached with multiple stakeholders regarding what conversion and/or substitution alternatives are to be implemented; mechanisms and protocols on how this will be achieved are lacking. In addition, support to those community members (indigenous peoples and subsistence farmers) and landowners affected by conversion and/or substitution activities need to be provided; this may include support to establishing green businesses and funding for implementation. In the case of traditional communities/indigenous peoples, support should be provided to identify and reestablish traditional sustainable practices, which will contribute to promoting the use of native agro-biodiversity and food security. To ensure the sustainability of the conversion and/or substitution of production activities, support also needs to be provided through promotion of</p>

	bility of the conversion and/or substitution of production activities, support also needs to be provided through promotion and access to markets of products that are biodiversity-friendly. Finally, training and technical support for local producers is required for the successful transition to production activities that are compatible with biodiversity conservation objectives.
Lack of mechanisms for sharing best practices and lessons learned regarding biodiversity and ecosystem service conservation in páramo landscapes limits replication and upscaling	There is a lack of mechanisms for knowledge sharing and targeted knowledge products in the country that would allow best practices and lessons learned about biodiversity conservation in páramo landscapes to be documented and systematized. Information-sharing networks are lacking among páramo complexes that would share valuable experiences of conservation initiatives that are already underway. At the local level, community communication strategies are needed to share best practices. These gaps limit the possibility of replication and upscaling of successful experiences locally, nationally, and regionally regarding biodiversity mainstreaming, species and habitat conservation, and gender-related issues in páramos and high mountain landscapes. In addition, there is a lack of systematic monitoring of results and limited available data to assess the impact of interventions and to guide future planning and investments.

2) The baseline scenario and any associated baseline projects.

9. Baseline investments are \$60,287,524 USD for a 5-year period. These investments are listed below and include investments from national and subnational institutions that are directly related to the conservation and management of páramo ecosystems as well as other related projects.

10. The MADS will invest \$400,000 USD to support the delimitation of páramo complexes and consultation with local communities. MADS will provide political and technical support to subnational environmental management authorities (i.e., CARs) for the management and conservation of critical páramo ecosystems. The CARs having jurisdiction in the Santurbán, Puracé, and Pisba complexes and that will participate in the project will invest approximately \$9,992,343 USD during the next 4 years. Investments will be directed to support multiple lines of work, including water resources management, conservation of high mountain ecosystems and related services, ecological restoration, climate change mitigation and adaptation, development of sustainable green businesses, control and surveillance, land use zoning, information and knowledge management, and environmental education, among other topics. In addition, the National Park System will invest \$2,794,915 USD between 2020 and 2024 for managing the Puracé National Park and the Pisba National Park. The Alexander von Humboldt Biological Resources Research Institute (IAVH) will invest \$411,630 USD in monitoring of biodiversity and data management, while IDEAM will invest \$23,636 USD in environmental data management and institutional support.

11. *Colombia Páramos and Forests Project.* This 5-year project (2018-2023), which is funded by the USAID with a total budget of \$40 million USD, supports Colombia in the implementation of its Agriculture, Forestry and Other Land Uses (AFOLU)-related climate change mitigation goals, while at the same time strengthening community-based sustainable development. This will be achieved by supporting the sustainable implementation of the existing USAID BioREDD/REDD+ portfolio; delivering sustainable results on the implementation of a results-based payment system for reduced carbon emissions in strategic high mountain ecosystems (i.e., páramo, high Andean forest, and wetlands); and providing targeted institutional and policy support to the Government of Colombia (GOC) towards achieving its climate change goals in the AFOLU sector.

12. *Páramo: biodiversity and water resources in the Northern Andes.* This project, which is funded by the European Union with a total budget of \$5,665,000 USD, has as its overall objective to reduce threats to the hydrological regulation capacity and biodiversity of páramo ecosystems in selected key areas. The project will strengthen the capacity of institutions involved in the management of páramos to conserve biodiversity and water resources regulation, supported by financial instruments, including PES schemes.

13. *Implementation of actions in the framework of the adaptation to climate change and risk management Stage 1: Department of Nariño.* This project, which is funded through the General System of Royalties (SGR) administered by the National Planning Department (DNP), will invest \$2,000,000 USD in the conservation of water resources that originate in the Puracé Paramo Complex and that benefit downstream human populations in the Department of Nariño in southwestern Colombia.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project.

14. The project will overcome the previously mentioned barriers by conserving páramo ecosystems through the promotion of sustainable systems for biodiversity conservation, ecosystem and agro-biodiversity services, and socio-environmental conflict management within the Pisba, Santurbán, and Puracé páramo complexes. A description of these landscapes is presented below and maps showing their locations are included in Annex 1. A strategy will be implemented that strengthens the governance framework for the conservation and sustainable use of biodiversity (Component 1); allows the delivery of multiple GEBs through the development of conservation management strategies for the prioritized páramo complexes, including the improved management of PAs and the conservation of key páramo species within them (Component 2); and transitions to activities that are compatible with the conservation and sustainable use of biodiversity in páramo landscapes, focusing on agriculture production and mining (Component 3). Knowledge and lessons learned from implementation will be systematized to enable adaptive management of the project and for replication and upscaling in other páramo and high mountain landscapes and sectors in the country and the South American region (Component 4).

Description of the prioritized páramo complexes

Páramo Complex	Principal Ecosystems	PAs / Key Biodiversity Areas Present (KBAs) ^[11]	Globally Important Biodiversity and Ecosystem Services	Main Threats
Pisba Páramo Complex (106,241 ha) (3,100 – 4,100 masl)	<ul style="list-style-type: none"> - Mountain rainforest (Andean) - Humid and very humid Páramo 	<ul style="list-style-type: none"> - Pisba National Park/KBA: 45,000 ha 	<ul style="list-style-type: none"> - Center of speciation and endemism of plants - Threatened and emblematic animal and plant species such as the Spectacled bear (<i>Tremarctos ornatus</i>), the oncilla (<i>Leopardos tigrinus</i>), the puma (<i>Puma concolor</i>), the white-tailed deer (<i>Odocoileus virginianus</i>), and páramo plant species (<i>Espeltia jaramilloi</i>, <i>E. congestiflora</i>, <i>E. tunjana</i>, <i>E. grandiflora</i>, <i>E. barklayana</i>) - 45 species of plants in areas of páramos (3,400 – 3,950 masl) 	<ul style="list-style-type: none"> - Extensive cattle ranching and agriculture - Burning of grass páramos associated to cattle ranching - Logging and burning of Andean forest to improve pastures - Loss of vegetation cover in the forest and subpáramo around lagoons and gallery forests that are important for water regulation - Contamination of and lagoons

			<ul style="list-style-type: none"> - Water resource that benefits more than 130,000 inhabitants of the departments of Boyacá and Casanare 	<ul style="list-style-type: none"> - Illegal hunting - Climate change
Santurbán Páramo Complex (135,253 ha) (3,000 – 4,290 masl)	<ul style="list-style-type: none"> - Mountain rainforest (Andean) - Dry, humid, and very humid páramo - Wetlands 	<ul style="list-style-type: none"> - Sisavita Natural Regional Park: 12,000 ha - Santurbán Natural Regional Park – Salazar de las Palmas: 19,088 ha - Santurbán Natural Regional Park – Forest groves: 21,840 ha - Berlín Integrated Management District: 44,272 ha 	<ul style="list-style-type: none"> - 253 plant species. - 42 bird species, including vulnerable species such as the migratory cuckoo (<i>Coccyzus americanus</i>), Andean speckled teal (<i>Anas flavirostris</i>), torrent duck (<i>Merganetta armata</i>), rusty-faced parrot (<i>Hapalopsittacus amazonina</i>), and Brown-breasted Parakeet (<i>Pyrrhura calliptera</i>). - Water resource benefits 1,700,000 inhabitants; irrigation/agriculture, thermoelectric energy center. 	<ul style="list-style-type: none"> - Agriculture (onion, potato, and wheat) - Grazing (sheep and cattle) - Logging and burning of naturally protective cover - Gold and silver (50 km²) and other (coal, limestone, marble, and phosphate, etc.) mining activity - Climate change
Puracé Páramo Complex (137,760 ha) [12] (3,350 – 4,640 masl)	<ul style="list-style-type: none"> - High Andean and cloud forest - Humid páramos - Andean oak forest 	Puracé National Park/KBA: 83,000 ha	<ul style="list-style-type: none"> - 392 plant species - 78% of bird species restricted to the páramo and 5% of the total birds endemic to the country - 16% of species of mammals registered in Colombia (14% of the species endemic to the country) - Water resource for a population of at least 670,276,581 inhabitants 	<ul style="list-style-type: none"> - Extensive cattle ranching and agriculture - Collection of firewood and timber - Mining operations - Illegal hunting - Illegal crops - Climate change

15. Component 1: Governance framework for the conservation and sustainable use of biodiversity.

16. Through this component, the project will strengthen the capacities of key national, subnational, and local institutions and local communities, including indigenous peoples and subsistence farmers, to manage the three páramo complexes. This will include the development of a capacity-building program incorporating a gender and ethnic focus that will allow the resolution of conflicts regarding land use and access to natural resources, among other issues, through a democratic dialogue process and the operationalization of management coordination committees for each of the three páramo complexes, including a differential working approach with indigenous peoples in the Puracé páramo Complex. In addition, a training plan for participatory planning and management of the páramos using an integrated landscape management approach will be developed so that the skills and knowledge needed to effectively deliver biodiversity conservation are in place. During the PPG phase, a training needs analysis will be completed, including the use of the UNDP Capacity Development Scorecard, and the number of beneficiaries of training activities will be established. The scorecard will also be used at least twice during project implementation to assess the project's impact on capacity development.

17. Three (3) community páramo monitoring networks with a gender and ethnic focus, the latter in the Puracé Páramo Complex, will be operationalized to assess the progress of biodiversity conservation and ecosystem services in the three prioritized páramo complexes, as well as their management effectiveness. To this end, the project will conduct an evaluation of the current status of biodiversity conservation and ecosystem services (e.g., water supply and regulation, biodiversity habitat, microclimate regulation) in three sites and will develop protocols for collecting, processing, and using this information, including a Special Chapter for Indigenous Communities in the Puracé páramo complex. In the case of water supply and regulation, the project will use tools and protocols developed through the GEF project *Adaptation to Climate Impacts in Water Regulation and Supply for the Area of Chingaza - Sumapaz - Guerrero* (GEF Project ID 4610) for the participatory monitoring of eco-hydrology and hydrological regulation in páramo ecosystems. Mechanisms of articulation with existing information and monitoring systems at the national and regional levels, such as the Biodiversity Information System (SIB) and the High Mountain Monitoring System, both of which are coordinated by the Alexander von Humboldt Biological Resources Research Institute (IAVH), will be implemented. This will allow information (e.g., biomass and carbon, taxonomic and functional biodiversity, climate, water dynamics and glaciers, as well as changes in land use and socio-environmental dynamics) to be utilized to optimize decision-making regarding conservation and sustainable use of biodiversity in páramo landscapes.

18. Through this component, the project will also mainstream the objectives for the protection and management of páramos into land use and development planning instruments at the national, subnational, and local levels. Guidelines for incorporating protection actions and management of the páramos into planning instruments will be developed and three (3) 4-year Regional Action Plans (CDMB, CRC, and Corpoboyacá), three (3) Departmental Development Plans (Santander, Boyacá, and Cauca), and five (5) Municipal Development Plans 2024-2028 (Santander: Municipalities of Tona y Veta; Boyacá: Gámeza y Tasco; and Cauca: Puracé) will be updated by project end, among others. The final selection of land use and development planning instruments to be considered will be done during the PPG phase in consultation with the interested regional, and local institutions. In the case of the Puracé Páramo Complex, special planning instruments will be developed for indigenous peoples (i.e., the Kokonukos)[13] that inhabit areas of the Puracé Páramo Complex at 2,400 masl or above and whose main economic activities include farming (e.g., potato, maize, onions), raising livestock, and mining sulfur deposits, among others. Roundtables with the indigenous communities living within the Puracé Páramo Complex (i.e., the Kokonukos) will be established so that the management of this páramo and biodiversity conservation is conducted with their active participation and traditional views. During the PPG phase, the indigenous groups present will be consulted on their participation in the project and as part of initial FPIC consultations as required by GEF, UNDP, and GOC policies, and an Indigenous Peoples Plan for the project will be developed.

19. Component 2: Biodiversity conservation and improved connectivity and ecosystem and services.

20. This project will allow the delivery of GEBs through the development and implementation of management plans for the delineated páramo complexes of Puracé/KBA (54,760 ha), Pisba/KBA (61,241 ha), and Santurbán (135,253 ha). This will include improved connectivity and ecosystem services and the restoration of degraded páramo and high Andean forest areas. To this end, at least three (3) complementary conservation strategies and/or Territories and Areas Conserved by Indigenous Peoples and Local Communities (TICCA) for indigenous peoples in the Purace Páramo Complex created and/or strengthened; and/or Nodes of the Civil Society Natural Reserves (RNSC) consolidated, both of which include are recognized as important strategies for the conservation of biodiversity in additional to protected areas^[1]. Conservation management strategies for the three páramo complexes will also include the implementation of three (3) PES projects (e.g., carbon sequestration, water storage), one per páramo, including one with an ethnic focus for the Purace Páramo Complex, following existing experiences in Colombia regarding PES and considering STAP guidelines for PES under GEF-funded interventions (*Payments for Environmental Services and the Global Environment Facility: A STAP advisory document* [2010]). Also, at least four (4) community and one (1) indigenous peoples strategies or brigades to protect against forest fires will be formed, trained, and equipped

| Santamaría M., Areiza A., Matallana C., Solano, C y Galán S. 2018. Estrategias complementarias de conservación en Colombia. Instituto Humboldt, Resnatur y Indación Natura. Bogotá, Colombia. 29 p.

21. GEBs will also be delivered through the implementation of management plans for the Pisba National Park (45,000 ha) and the Puracé National Park (83,000 ha), which are part of the corresponding páramo complexes. More specifically, support will be provided to strengthen the operational and technical capacities of PA staff for prevention, monitoring, and control activities, which may include training, fire-fighting equipment, patrolling, biodiversity monitoring, and working with local communities in buffer areas to raise awareness about the importance of the PA and biodiversity. Support will be provided to implement participatory ecological restoration actions in ecologically sensitive areas within the PAs using the existing high mountain restoration protocols developed through other GEF initiatives (i.e., GEF Project ID 4610). In addition, land tenure studies will be conducted in prioritized municipalities for each PA, which will assess related conflicts and would assist in defining resolution strategies. The development of management plans and related information, including information about the páramo ecosystem, will be done through a participatory dialogue process in line with agreements with the local communities of the Pisba National Park and Puracé National Park for their delineation. To contribute to the financial sustainability of both PAs (i.e., Pisba National Park and Puracé National Park), two financial mechanisms will be implemented, one per PA; potential financial options include municipal revenues to support conservation, environmental compensation schemes, and water use rates. During the PPG phase, a complete assessment of the best financial options for each PA will be conducted. The Management Effectiveness Tracking Tool (METT) will be used to assess changes in management effectiveness of the two PAs; METT baseline and project targets will be defined during the PPG phase, as well as baseline and targets for reducing the financial gap to cover basic management costs. The METT will be applied again at the mid and end points of the project.

22. As part of this component, an ecological restoration strategy that contributes to enhancing connectivity and the recovery of ecosystem services will be supported. A restoration plan for strategic areas within each prioritized páramo complex will be developed (including working with subsistence farmers and indigenous peoples, the latter in the Puracé Páramo Complex) in line with National Ecosystem Restoration Plan (2015) which considers restoration within the context of production conversion and substitution (see Component 3), and in coordination with the Office of the of Forests, Biodiversity and Ecosystem Services of the MADS. Restoration actions will implemented through 70 restoration agreements with local communities (individuals or groups, including women and indigenous peoples, the latter in the Puracé Páramo Complex), and based on a population censuses and land tenure characterizations that will be conducted after the delineation of each páramo complex is approved by the MADS. By project's end, 2,000 ha of páramo will be under restoration. Restoration will be achieved through LMTs (e.g., micro-corridors, forest enrichment, live fences, windbreaks) to be implemented at the farm level, linking conservation and

sustainable production/agro-ecological objectives. LMTs will also contribute to building resilience to climate change, and their implementation will include traditional knowledge and a gender- and ethnic-based approach. LMTs will utilize native species and may include the establishment of nurseries to supply needed plant material following a needs assessment to be conducted during the PPG phase. Restoration strategies will also include natural regeneration.

23. Finally, the project will contribute to maintaining representative populations of key páramo species belonging to three (3) biological and functional groups (e.g., plants, birds, and amphibians, among others), focusing on threatened species, endemic species, and species used as conservation targets of PAs and which may include the mountain tapir (*Tapirus pinchaque*), the spectacled bear (*Tremarctos ornatus*), the Andean condor (*Vultur gryphus*), and the puma (*Puma concolor*). Conservation plans for these and other species (the final selection of species will be conducted during the PPG phase) will be developed, updated, and/or implemented, and will include among other things, human-wildlife conflicts that are caused by the encroachment of agricultural activities into the páramo. The status of the prioritized species will be monitored during the project considering the community monitoring networks of páramos to be developed through Component 1 and the monitoring efforts as part of the management of the Pisba and Puracé National Parks. Monitoring actions and related information generated through the project will strengthen existing monitoring platforms such as the SIB and the High Mountain Ecological Monitoring System. A comprehensive monitoring of the ecosystems will be conducted taking into account that IDEAM, in collaboration with the IAVH, is currently consolidating an integrated monitoring strategy for High Mountain Ecosystems. It is expected that by project inception, the system will be fully operational and monitoring variables in addition to the species mentioned above may be included.

24. Component 3: Transition to activities that are compatible with the conservation and sustainable use of biodiversity in the Puracé, Pisba and Santurbán páramo landscapes.

25. This component will establish production practices within the páramo landscape that are biodiversity-friendly and that use an integrated landscape management approach focusing on agriculture and mining activities, in line with the Páramos Law (Law 1930 of 2018). A strategy will be implemented for agriculture production conversion and substitution and/or mining activity substitution in close consultation with local stakeholders and representatives of these sectors, and in line with MADS delineation resolutions for each prioritized páramo complex. This will entail evaluating agriculture and mining activities and identifying conversion and/or substitution actions. Intersectoral roundtables (MADS, Ministry of Agriculture and Rural Development [MADR], Ministry of Mines and Energy, private sector, and local communities) will be established for each prioritized páramo complex to hold discussions and reach agreements on conversion and/or substitution alternatives and responsibilities. Accordingly, project investments under this component will be directed to implement the guidelines for conversion and/or substitution actions and which are currently under public discussion. Additional financial resources will be leveraged through the MADR and the Ministry of Mines and Energy to implement activities that are compatible with the conservation and sustainable use of biodiversity in the three prioritized páramo complexes.

26. Conversion and/or substitution actions will include the development of green ventures (products or services with environmental qualities and/or sustainable use of biodiversity) using the methodology to implement green business regional programs that was developed by the German Corporation for International Cooperation (GmbH) and the MADS, as well as a search for seed capital investment funds for businesses with high potential for success. Similarly, criteria for supporting the development of green businesses (e.g., ecotourism) will be established, including training and marketing with support from the National Training Service (SENA) and regional universities (e.g., the Pedagogical and Technological University of Colombia [UPTC] and the Industrial University of Santander [UIS]). The strategy for agriculture production conversion and substitution and/or mining activity substitution will consider ethnic- and gender-based approaches allowing for differential interventions. In addition, traditional sustainable practices for native species use (e.g., native potatoes) will be reestablished and/or strengthened focusing on gender, and will contribute to food security, generate income for the inhabitants of the páramos, and build ecosystem resiliency. For the implementation of activities for conversion and/or substitution of agriculture and mining activities, 70 conservation and sustainable use agreements will be signed with subsistence farmers and indigenous peoples, the latter in the Puracé Páramo Complex, considering recommendations made by the management coordination committees (Component 1) and intersectoral roundtables of each páramo complex, and population

censuses and land tenure characterizations that will be conducted after the delineation of each páramo complex is approved by the MADS. The success of business ventures related to biodiversity and agro-biodiversity products (e.g., native potatoes, vegetables, grains, and fruits) will be enabled through economic, financial, and market mechanisms that serve as incentives for the sustainable use of agro-biodiversity in the páramos, focusing on the participation of woman, indigenous peoples, and other vulnerable groups. These economic, financial, and market mechanisms will be selected during the PPG phase through a feasibility analysis and using criteria to build ecosystem resiliency. In addition, support will be provided to promote access to markets for biodiversity and agro-biodiversity products in collaboration with the Biotrade Program in Colombia and Proexport, an organization that is responsible for the commercial promotion of non-traditional exports. Finally, a rural extension program for sustainable production and the promotion of sustainable value chains will be implemented, which will include the traditional knowledge of indigenous peoples in the case of the Puracé Paramo Complex, and using extension services from the MADR and the CARs and guidelines for the conversion and/or substitution of production activities in páramo landscapes developed under the GEF project *Adaptation to Climate Impacts in Water Regulation and Supply for the Area of Chingaza - Sumapaz - Guerrero* (GEF Project ID 4610) and the European Union-funded project *Páramo: biodiversity and water resources in the Northern Andes*. By project end, 2,200 ha of páramos will be managed under an integrated and biodiversity management system, including 10% of the total area (ha) of the páramo under agriculture in the prioritized municipalities will be in process of biodiversity-friendly production conversion and/or substitution and 10% of mines (gold, coal, sulphur, etc.) will be closed and/or replaced with biodiversity-friendly practices (i.e., substitution). In addition, 560 members of local communities in the paramos will have changed their production practices and will be actively engaged in biodiversity friendly practices.

27. Component 4: Knowledge management, communication, and monitoring and evaluation (M&E).

28. Best practices and lessons learned regarding biodiversity and ecosystem service conservation in páramo landscapes will be systematized and made available for use in other páramo landscapes in the country. This will include creating a network to exchange information between the three prioritized páramo complexes and other conservation initiatives in the country's páramos and which will be operated by the CARs, and the implementation of a community and gender- and ethnic-based communication best practices program to promote sharing knowledge locally. The project will also support adaptive management so that the lessons learned from implementing activities may be integrated in the project's annual programming.

29. In addition, though this component, a Gender Action Plan and an Indigenous Peoples Plan will be implemented, with specific activities carried out through annual work plans and based on guidelines from the UNDP and GEF. Both plans will be developed during the PPG phase and will be based on a detailed gender analysis that assesses the different needs, roles, impacts, risks, and differential access and control of natural resources for women and men, as well as FPIC needs. Project outcomes, as described in the project Strategic Results Framework, will be monitored annually and evaluated periodically during project implementation to ensure they are achieved. Project M&E will be performed through the M&E Plan that is based on exhaustive monitoring and verification of the selected indicators and the adoption of potential new indicators that are considered beneficial to add during project implementation. The M&E Plan will be developed during the PPG phase in accordance with the requirements set forth in the UNDP Programme and Operations Policies and Procedures and the UNDP Evaluation Policy.

4) Alignment with GEF focal area and/or Impact Program strategies.

30. The project is aligned with the GEF Biodiversity Focal Area, more specifically with Objective 1: Mainstream biodiversity across sectors as well as landscapes and seascapes; and Objective 2: Address direct drivers to protect habitats and species. The project will contribute to achieving Aichi Targets 1, 4, 5, 7, 8, 11, 12, 14, 15, and 18. The project will also contribute to the Sustainable Development Goals: 5, 6, 12, 13, and 15.

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF and co-financing.

31. The baseline investments described in Section 2 will contribute in some measure to the conservation of páramo ecosystems through the promotion of sustainable systems for biodiversity conservation and ecosystem and agro-biodiversity services, including the final delineation of the páramo complexes in Colombia as required by law. Financing provided by the GEF will strengthen the governance framework for biodiversity conservation and sustainable use. The GEF's financing will support specific actions towards ecological restoration, effective PA management, conservation and monitoring of threatened páramo species, and the implementation of biodiversity-friendly production practices as part of a strategy for the conversion and substitution of existing production activities that threaten páramos and their associated ecosystems. These actions, which will be implemented during a 5-year period with an investment of \$3,502,968 USD from the GEF and \$14,011,872 USD in cofinancing, will be added to the baseline investments delivering the GEBs that are described in the following section.

6) Global environmental benefits (GEFTF).

Current practices (baseline)	Alternative proposed by the Project	Anticipated GEBs
Limited capacity of public institutions, the private sector, and communities to mainstream biodiversity into production lands in páramo landscapes and effectively manage PAs and conserve and monitor threatened species.	Enhanced capacity of three (3) management coordination committees (one for each prioritized páramo complex) for the conservation and sustainable use of biodiversity with the participation of institutions and the community, and with a gender focus.	<ul style="list-style-type: none"> - 3- 251,254 ha of páramo (Puracé/Key Biodiversity Area[KBA]: 54,760 ha; Pisba/KBA: 61,241 ha, and Santurbán: 135,253 ha) with conservation management strategies. - 128,000 ha of PAs with improved management effectiveness. - 2,000 ha of páramo ecosystems restored. - Improved conservation of threatened páramo species: tapir (<i>Tapirus pinchaque</i>), spectacled bear (<i>Tremarctos ornatus</i>), Andean condor (<i>Vultur gryphus</i>), and puma (<i>Puma concolor</i>). (The final selection of species will be conducted during the PPG phase.)
Land use and development planning instruments with gaps for the protection and management of páramo ecosystem services and biodiversity.	Updated national, subnational, and local land use and development planning instruments with consideration for the protection and management of páramos.	
Páramo complex delineation process underway with lack of management plans and limited implementation for the conservation and improved ecosystem connectivity and services.	Three (3) participatory management plans developed and implemented for the delineated Puracé, Pisba, and Santurbán páramo complexes.	
Updated management plans for specific high mountain/páramo PAs with limited implementation.	Management plans for the Pisba and Puracé National Parks under implementation: prevention, monitoring, and control; participatory ecological restoration; and land tenure studies.	
Restoration protocols for páramo ecosystems have limited restoration actions.	Restoration plans for strategic areas within three prioritized páramo complexes under implementation.	
Outdated conservation plans for key threatened páramo species.	Updated conservation plans for key threatened páramo species with monitoring underway.	
Páramo complex delineation process underway, but limited progress made in agriculture production conversion and substitution and/or mining activity substitution.	Strategy for agriculture production conversion and substitution and/or mining activities substitution for three páramo complexes being implemented and benefiting local communities including women, indigenous peoples, and other vulnerable groups.	

7) Innovation, sustainability and potential for scaling up.

32. *Innovation.* The project is innovative in that it will enable the development and implementation of management plans following delineation of the páramo complexes as mandated by Colombia's laws. This will be done using an integrated landscape management approach that brings together public and private stakeholders representing different interests for the conservation and sustainable use of biodiversity on páramo landscapes. The project includes the Santurbán Páramo Complex, which was the first páramo delineated in the country and which served as the reference for the delineation of the remainder of páramo complexes in the country. It is expected that the management measures to be developed by the project for Santurbán will serve as a guide for similar efforts elsewhere.

33. *Sustainability.* Institutional sustainability will be achieved by strengthening the governance framework for the biodiversity conservation and sustainable use through the participation of national, subnational, and local level institutions in decision-making processes, as well as local communities from the three páramo complexes. The empowerment of local communities, including women and indigenous peoples, through their participation in management coordination committees, roundtables, democratic dialogue for conflict resolution, and monitoring of biodiversity and ecosystem services, and the management plans of páramo complexes, constitutes an important aspect of the project in achieving institutional sustainability. Ecological sustainability will be achieved through the development of participatory management plans for páramo complexes and the implementation of management plans for the Pisba and Puracé National Parks, which will include participatory ecological restoration, the implementation of LMTs with native species to enhance connectivity, and climate change resiliency. In addition, long-term conservation strategies for key páramo species and their monitoring will also contribute to the sustainability of the project. Social sustainability will result from achieving long-term conservation and sustainable use agreements for implementation of activities around the conversion and/or substitution of agriculture and mining activities and the placement in markets of biodiversity and agro-biodiversity products (e.g., native potato) that are expected to generate income to subsistence farmers and indigenous peoples participating in conversion and/or substitution activities; in addition, they will contribute to local food security.

34. *Potential for scaling up.* The project will be implemented in three (3) of the 37 páramo complexes found in Colombia; accordingly, best practices, lessons learned, and new knowledge that result from its implementation have great potential for replication and scaling up nationally. In addition, páramo ecosystems are also found in Ecuador, Peru, Venezuela, Panama, and Costa Rica. These countries face similar challenges to Colombia's páramo complexes and will potentially benefit from experiences resulting from the project proposed herein. The project will establish a pilot network to exchange information among the three páramo complexes and other conservation experiences in the country's páramos, and will also make use of different regional and global biodiversity-related platforms to share knowledge and lessons learned.

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1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Please refer to Annex A.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

STAKEHOLDER	ROLE IN THE PROJECT
Ministry of the Environment and Sustainable Development (MADS)	Charged with defining the National Environmental Policy and promoting restoration, conservation, protection, planning, management, and use of renewable natural resources to ensure sustainable development and guarantee the rights of all citizens to live in a healthy environment. Will be the project execution agency and will lead the final project preparation process and will ensure interinstitutional coordination and project follow-up.
Natural National Parks of Colombia (PNN)	Charged with managing the National Parks System and coordinating the National System of Protected Areas. Additional consultation will be conducted during the PPG to define its role the effective management of the prioritized PAs, conservation of key species and monitoring.
Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM)	Charged with performing studies and research regarding natural resources, especially those related to forest resources, soil conservation, and climate change. Additional consultation will be conducted during the PPG to ensure its role as a main provider of environmental and biodiversity information about the prioritized páramo complexes. el Ideam es misionalmente encargado de hacer el monitoreo y seguimiento de los ecosistemas y sus componentes, así como hacer el seguimiento de la interacción de los procesos naturales en lo que respecta a la sostenibilidad de los ecosistemas nacionales. Igualmente está encargado de producir y proponer modelos e indicadores ambientales en el campo de la geomorfología, los suelos y los ecosistemas nacionales para su preservación y manejo sostenible. Asi como tambien provee los lineamientos en materia de CC, recursos forestales e hidrológicos.
Alexander von Humboldt Biological Resources Research Institute (IAVH)	National-level research institute charged with conducting scientific research on the biodiversity of the country. Additional consultation will be conducted during the PPG to ensure its role in the development of conservation strategies for key páramo species and their monitoring, and strengthening existing biodiversity monitoring platforms.
Subnational Environment	The CARs are subnational public corporate entities charged of the management of the environment and renewable natural res

al Authorities/Regional Autonomous Corporation (CARs)	ources within their jurisdictions, as well as promoting sustainable development in line with the regulations and policies set by the MADS. Will be consulted during the PPG to define their role in the development and implementation of the management plans for the three prioritized páramo complexes, incorporating protective and management measures of páramos into subnational planning instruments, and for providing technical assistance and extension service for the implementation of biodiversity-friendly production practices. CARs include: CDMB, CRC, and Corpoboyacá.
Ministry of Agriculture and Rural Development (MADR)	Charged with developing, coordinating, and evaluating policies that promote competitive, equitable, and sustainable development of agricultural, forestry, and rural development processes. Will be consulted during the PPG to define its role in intersectoral discussions roundtable to define conversion and/or substitution alternatives and responsibilities and to provide and to provide rural extension services for sustainable production and the promotion of sustainable value chains.
Ministry of Mines and Energy	Oversees the regulation of the mining and mineral industry and the electricity sector in the country. Will be consulted during the PPG phase of the project regarding mining concessions within the prioritized páramo complex and input for the substitution of mining activities.
Departmental Governments	Charged with the administration and governance of the departments in a decentralized manner. Will be consulted during the PPG to define their role in the development and implementation of the management plans for the three prioritized páramo complexes and incorporating protective and management measures of páramos into subnational planning instruments,
Municipalities	In charge of developing and implementing land use plans referred to in the Development Plan Law and Law 388 of 1997; specifically regulating land uses in the municipality area in accordance with the law. Will be consulted during the PPG to define their role in the development and implementation of the management plans for the three prioritized páramo complexes and incorporating protective and management measures of páramos into local planning instruments,
Municipal Aqueduct Service Provider	Law 142 of 1994 indicates that the municipalities may directly provide water supply and treatment services. During the PPG will be consulted within the prioritized municipalities to ensure their participation in conservation and water management actions in páramo areas that provide water-related ecosystem services.
Local communities	Local communities are the owners/land users and those who inhabit and use the land and natural resources in the project prioritized páramos landscapes. Consultation with local communities and community organizations will be conducted during the PPG phase as part of the stakeholder analysis and their roles in the project will be further defined as part of the comprehensive Stakeholder Engagement Plan that will also be developed during the PPG phase. In addition, initial FPIC consultations will be conducted with indigenous peoples in the Purace páramo complex to ensure their effective participation in project implementation and an Indigenous Peoples Plan will be developed.
Production sectors	Include the agricultural and mining sectors present in the páramo complexes. During the PPG will be consulted to ensure their participation in intersectoral discussions roundtable to define conversion and/or substitution alternatives and responsibilities.
Academia and training centers	Consultations will be conducted during the PPG to define their participation in the project in terms of generating information about páramo ecosystems, biodiversity and ecosystem services, and for providing training to project beneficiaries for the implementation of alternative production practices.
International cooperation	Consultations will be conducted during the PPG to establish synergies with the various initiatives being implemented with their

international cooperation and funding agencies	Consultations will be conducted during the PFG to establish synergies with the various initiatives being implemented with their support in the proposed páramo complexes, allowing to coordinate actions and identify areas of complementarity. These may include USAID, the European Union, and international NGOs, among others.
United Nations Development Program (UNDP)	GEF Implementing Agency: Country Office and Regional Office (Panamá), will assist the MADS in the final project preparation process and will provide technical, programmatic, and administrative assistance.

The Project will have a Steering Committee (SC) made up of the main partners: MADS (International Affairs Office, Directorate of Biodiversity Forests and Ecosystem Services [DBBSE], and other technical directorates), PNN, IAVH, IDEAM, and UNDP, which will be responsible for providing strategic guidance to the project, as well as the approval of the Annual Work Plans, among others; and a Technical Committee, which will be made up of technical counterparts of the same institutions of the SC, and technical staff from other relevant institutions and civil society partners.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Women will play a central role in project implementation, as they will be beneficiaries of incentives, technical support, and training for implementing biodiversity-friendly production practices. The project will contribute towards ensuring food security and income for women and their families by supporting sustainable agriculture practices and the reestablishment and/or strengthening of traditional sustainable practices for native species use (e.g., native potatoes). Women will also be empowered through their participation in the management coordination committees for the three páramo complexes; the project will develop a gender-based governance framework for biodiversity conservation and sustainable use in páramo and high mountain landscapes. Women were active participants in discussions at the national level for the development of this project concept. Consultations with women at the field level will be held during the PPG phase and a gender expert will be hired to conduct a gender analysis that includes information disaggregated by sex. This gender expert will also develop a budgeted Gender Action Plan that includes gender indicators.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources;

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Private sector participation will be essential for the management of the three (3) prioritized complexes and for defining conversion and/or substitution alternatives to current agricultural mining, and the implementation of green ventures and businesses. During the PPG phase, consultations be held with the private sector, which may include associations and cooperatives that represent farmer and miners and who will be identified as part of the stakeholder analysis. Also, a comprehensive Stakeholder Engagement Plan will be developed and will include mechanisms to involve the private sector in the project.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

The identification of potential risks is based on UNDP's Social and Environmental Screening Procedure (SESP) for project concepts (pre-screening). The project is considered high risk, with potential downstream impacts (Components 3) and upstream impacts (Component 1 and 2); accordingly, an Environmental and Social Impact Assessment (ESIA) is required for the field-level activities and a Strategic Environmental and Social Assessment (SESA) is required for the policy-level activities.

During the PPG, this screening (SESP) will be revised based on further assessments and on information/details gathered in the course of the development of the project. At a minimum, the following will be prepared during the PPG to meet social and environmental screening requirements revealed in this pre-screening:

- Environmental and Social Management Framework (ESMF)
- Stakeholder analysis and comprehensive Stakeholder Engagement Plan
- Initial Free Prior and Informed Consent (FPIC) consultations
- Indigenous Peoples Plan (IPP)
- Gender analysis and Gender Action Plan

The assessment of the principal individual risk is presented below.

Risk	Level*	Risk Mitigation Strategy
Subnational (CARs) and local governments (municipalities), and local communities may not have the capacity to implement project activities successfully.	M	Currently there is weak implementation of national policies at the subnational, municipal, and community levels due to capacity limitations. This results in inadequate governance of land and other natural resources and weak enforcement of environmental regulations. This risk will be managed through the project design, and will be examined during the ESIA process and included in the Environmental and Social Management Plan (ESMP) as deemed necessary. Through Component 1, the project includes several outputs related to strengthening governance for biodiversity the conservation and sustainable use at the subnational and local levels.
The project could restrict the access of small farmers and miners to resources or basic services with	M	Some small farmers and miners may be conducting production activities in páramo complexes (including PAs/KBAs), and access to these areas or other ecologically sensitive areas may be limited due to project; however, no physical displacement is anticipated. Small farmers and miners will be closely involved and engaged

hin páramo complexes (including PAs/KBAs) due to increased enforcement of landscape protections and the conversion and substitution of agricultural and mining activities, thereby causing economic displacement.		ed during the development of the project, and an assessment of their livelihoods will be undertaken. Avoidance measures will be identified jointly with farmers and environmental authorities and, where avoidance is not possible, management measures will be developed with full, meaningful engagement, and consultation. The risk will be covered within the ESMF and further assessed during the ESIA. A Livelihood Action Plan will be included in the ESMP as needed.
Poorly designed or executed project activities could damage critical or sensitive habitats.	M	The project includes the development of restoration plans and the implementation of LMTs as part of restoration efforts and to build ecosystem connectivity along the páramo vegetation gradient and surrounding forests. This risk will be managed through the project design, and will be examined during ESIA and included in the ESMP as deemed necessary.
Project activities and outcomes will be vulnerable to the potential impacts of climate change.	M	Páramo ecosystems are highly susceptible to climate change, and changes in temperature and precipitation may occur. The project will improve ecosystem connectivity along the páramo vegetation gradient and surrounding forests, improving the resilience of biodiversity through increasing species' mobility and providing refuge against climate variability. Biodiversity-friendly production practices will create stable conditions and will be developed considering the benefits that will favor vulnerable biodiversity, production systems, and human populations. This risk will be managed through the project design and will be examined during the ESIA and included in the ESMP as deemed necessary.
Indigenous peoples might not be involved in project design and therefore not engaged in, supportive of, or benefitting from project activities; FPIC has not yet been applied.	H	The project will engage small farmers and indigenous peoples conducting agriculture and possibly mining activities in the Puracé páramo complex (there is no presence of indigenous peoples in the Santurbán and Pisba páramo complexes). During the PPG phase, the full extent of indigenous peoples' participation in agriculture and mining in the Puracé páramo complex will be assessed. If FPIC is determined to be a requirement, then consultations will be carried out with the objective of achieving initial consent from the specific rights-holders, as appropriate and in line with Standard 6/SESP requirements. FPIC will then be continued during project implementation, following the measures summarized in the ESMF and in the Indigenous Peoples Plan (IPP) that is prepared as part of the subsequent ESMP.
Policy changes could have unintended negative social and/or environmental impacts.	M	The project will plan support, policy advice, and capacity building for the management of three páramo complexes and two PAs, which may result in unintended negative social and/or environmental impacts. This risk will be managed through

cial and/or environmental impacts if poorly designed or executed (upstream impacts).		egative social and/or environmental impacts. This risk will be managed through the design of the project; it will be examined during the course of the ESIA and included in the ESMP as deemed necessary.
Legal uncertainty regarding the delimitation of the Santurbán and Pisba paramo complexes may delay the implementation of management actions	M	The project may contribute to reduce this risk by supporting consultations with local stakeholders. Close communication with the MADS legal team will be maintained to follow any development and provide technical and field support as deemed necessary.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The project will coordinate actions with the GEF project (GEF Project ID 5680) *Consolidation of the National System of Protected Areas(SINAP) at National and Regional Levels*, which is currently under implementation with support from the Inter-American Development Bank (IADB). This projects aims to consolidating SINAP's management and planning at the national and regional levels through the development of instruments that enhance its management effectiveness in order to increase ecosystem representativeness and strengthen the participation of regional stakeholders in conservation initiatives along strategic biological corridors and conservation mosaics. Information and lessons learned regarding the implementation of management plans (including control and surveillance activities) will be exchanged, an analysis of the management effectiveness will be performed, and governance in PAs in the Northeastern Andes will be strengthened.

The project will also coordinate actions with the GEF project *Contributing to the Integrated Management of Biodiversity of the Pacific Region of Colombia to Build Peace* (GEF Project ID 9441) currently under implementation with support from the Food and Agriculture Organization of the United Nation (FAO). This project will mainstream biodiversity conservation and sustainable use and the provision of ecosystem services in vulnerable landscapes of Colombia's Pacific region, in view of generating global and local environmental benefits and supporting the peace process. Local communities' and indigenous peoples' participation and governance for PA and high mountain ecosystem management (Tatamá and Munchique National Parks) will be facilitated, critical ecosystems within and outside PAs will be restored, and support will be provided to biodiversity-friendly production practices, including the development of green businesses and access to markets.

The project will consider lessons learned and best practices under the Special Climate Change Fund (SCCF) project *Adaptation to Climate Impacts in Water Regulation and Supply for the Area of Chingaza - Sumapaz - Guerrero* (GEF Project ID 4610), which is currently in the final phase of implementation with support from IADB. This project is strengthening the hydrological buffering and regulation capacity of the Chingaza-Sumapaz-Guerrero páramo corridor, which supplies drinking water to the Bogotá metropolitan area and the adjoining rural municipalities. Lessons learned and best practices will be considered regarding the restoration of high mountain ecosystems (páramos and Andean forest), maintenance of the hydrological buffering and regulation capacity of high mountain ecosystems and improvement of the reliability of water supply under conditions of climate change and variability, gender mainstreaming, and mainstreaming of high mountain ecosystem management into local land use and development plans.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

Colombia ratified the Convention on Biological Diversity (CBD) on February 26, 1995. The project is consistent with Colombia's Biodiversity Action Plan – BAP (2016-2030), which was developed to implement the National Policy for the Integral Management of Biodiversity and Its Ecosystem Services – PNGIBSE (2012-2020). The main objective of the PNGIBSE is to promote the integrated management of biodiversity conservation and its ecosystem services so that the resilience of socio-ecological systems is maintained at the national, regional and local scales, taking into account scenarios of change, and through the joint, coordinated, and concerted action of the government, the productive sector, and civil society. The project will contribute to the implementation of all the thematic axes of the PNGIBSE and line with the BAP: 1. Biodiversity, conservation and the care of nature; 2. Biodiversity governance; 3. Biodiversity, economic development, competitiveness and quality of life; 4. Biodiversity and the management of knowledge, technology, and information; 5. Management of risk and supply of ecosystem services; and 6. Biodiversity, co-responsibility and global commitments. The project will also contribute to achieving several of the 2025 targets defined in the BAP regarding PAs, land use planning, ecosystem restoration, PES, and recovery of traditional practices for biodiversity conservation, among others.

The project is also consistent with the 5th CBD National Report (2014), which emphasizes the importance of biodiversity and ecosystem services for the well-being of people and economic and social development. The report identifies the main drivers of loss of biodiversity and ecosystem services (i.e., land use change, ecosystem and agro ecosystem degradation, water pollution, and climate change), which the project proposed herein will address.

The project is consistent with the National Development Plan 2018-2022, which establishes that the protection of water, biodiversity, and the environment are of vital national interest. As part of Chapter IV. Pact for sustainability: produce conserving and conserve producing, the plan indicates that the goal is to conserve the biodiversity and natural richness of the country and position it as an active national strategy. As such, the following objectives are set forth in the plan: a) implement trans-sectoral strategies to control deforestation, conserve ecosystems, and prevent their degradation; b) perform integrated interventions in strategic environmental areas and for the communities that live in them (including the páramos); c) create incentives for conservation and PES schemes to promote the maintenance of natural capital; and d) consolidate the development of products and services based on the sustainable use of biodiversity. The project will contribute towards achieving these objectives, as well as achieving regional agreements for designing and implementing environmental management tools to protect strategic ecosystems such as the páramos.

The project is also consistent with the National Ecosystem Restoration Plan (2015), which guides and promotes integrated ecological restoration processes to restore ecosystem conditions such as structure, composition, and function, and ensures the provision of ecosystem services in degraded areas of ecological importance to the country. Finally, the project is aligned with the POMCA for those watersheds found in the three prioritized páramo complexes, as well as the Municipal Land Use Plans and Development Plans for those municipalities prioritized by the project and in which actions for the conservation and sustainable use of biodiversity and the páramos will be implemented.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

7. Knowledge management activities will be part of Component 4 and will include the systematization of the knowledge generated and the sharing of lessons learned, including women's experiences. Knowledge products/ publications will be developed. Solutions and best practices will be shared through different national and global platforms. At the country level the project will make use of information portals such as the Colombia Environmental Information System (SIAC) administered by MADS and IDEAM; the Forest and Carbon Monitoring System (SMByC) administered by IDEAM; the Information System of the National Water Resource Monitoring Program administered by IDEAM; the Information System for the Monitoring of Natural National Parks of Colombia (SULA) administered by PNN; the National Single Registry of Protected Areas (RUNAP) with specific updates for the Pisba National Park and the Puracé National Park administered by PNN; the Biodiversity Information System (SIB) administered by IAVH; and the System of Environmental and Biodiversity Indicators at the National Level, which is a collaborative effort between IDEAM, IAVH, and the Agustín Codazzi Geographic Institute (IGAC). Global platforms include the Convention on Biological Diversity, IUCN, the Panorama – Solutions for a Healthy Planet, and the Regional Andean Forest Network (Colombia, Bolivia, Ecuador, and Peru). The project may also participate in UNDP-GEF sponsored networks that are organized for senior staff working on similar projects and in scientific and/or any other networks that may be of benefit to project implementation. Identifying and analyzing lessons learned is an ongoing process, and the need to communicate lessons as one of the project's central contributions is a requirement to be delivered at least every 12 months.

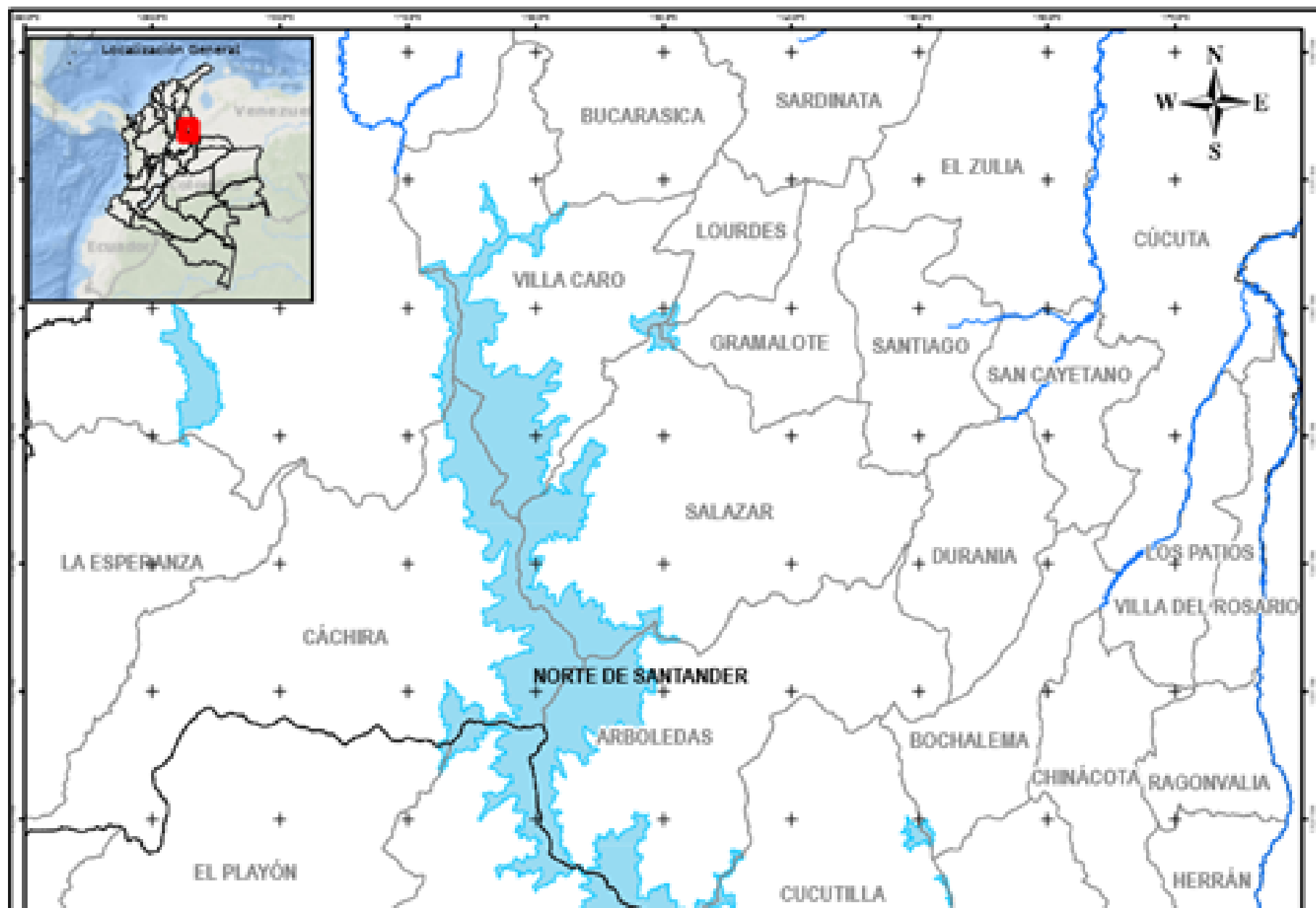
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

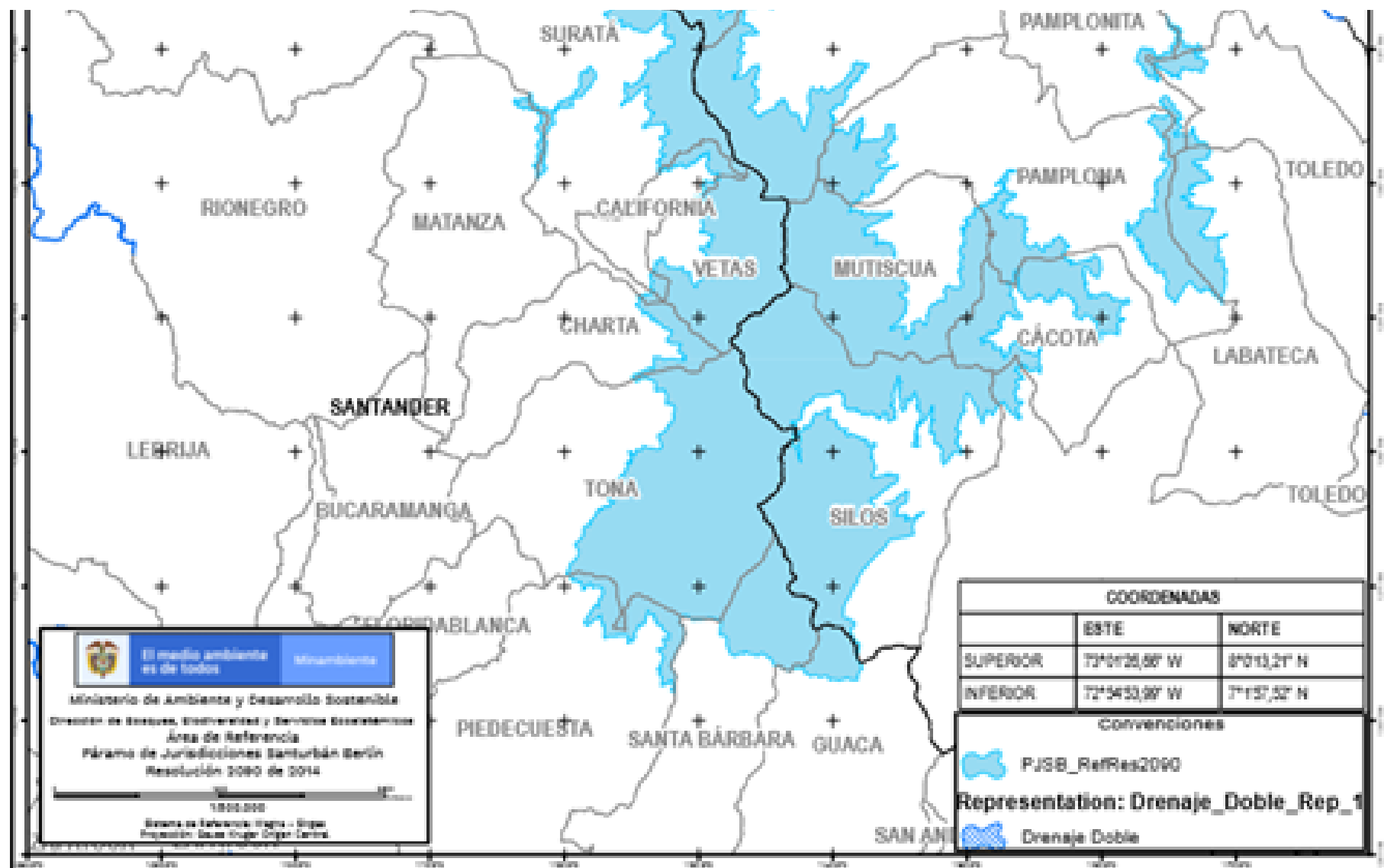
A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
David Felipe Olarte Amaya	Head of the International Affairs Office	Ministry of Environment and Sustainable Development	11/5/2019

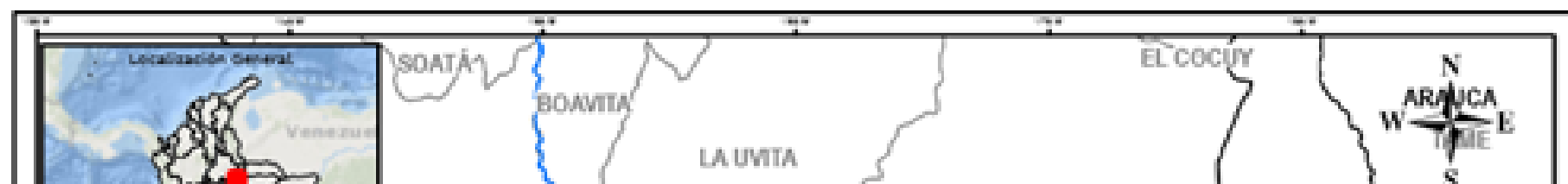
ANNEX A: Project Map and Geographic Coordinates

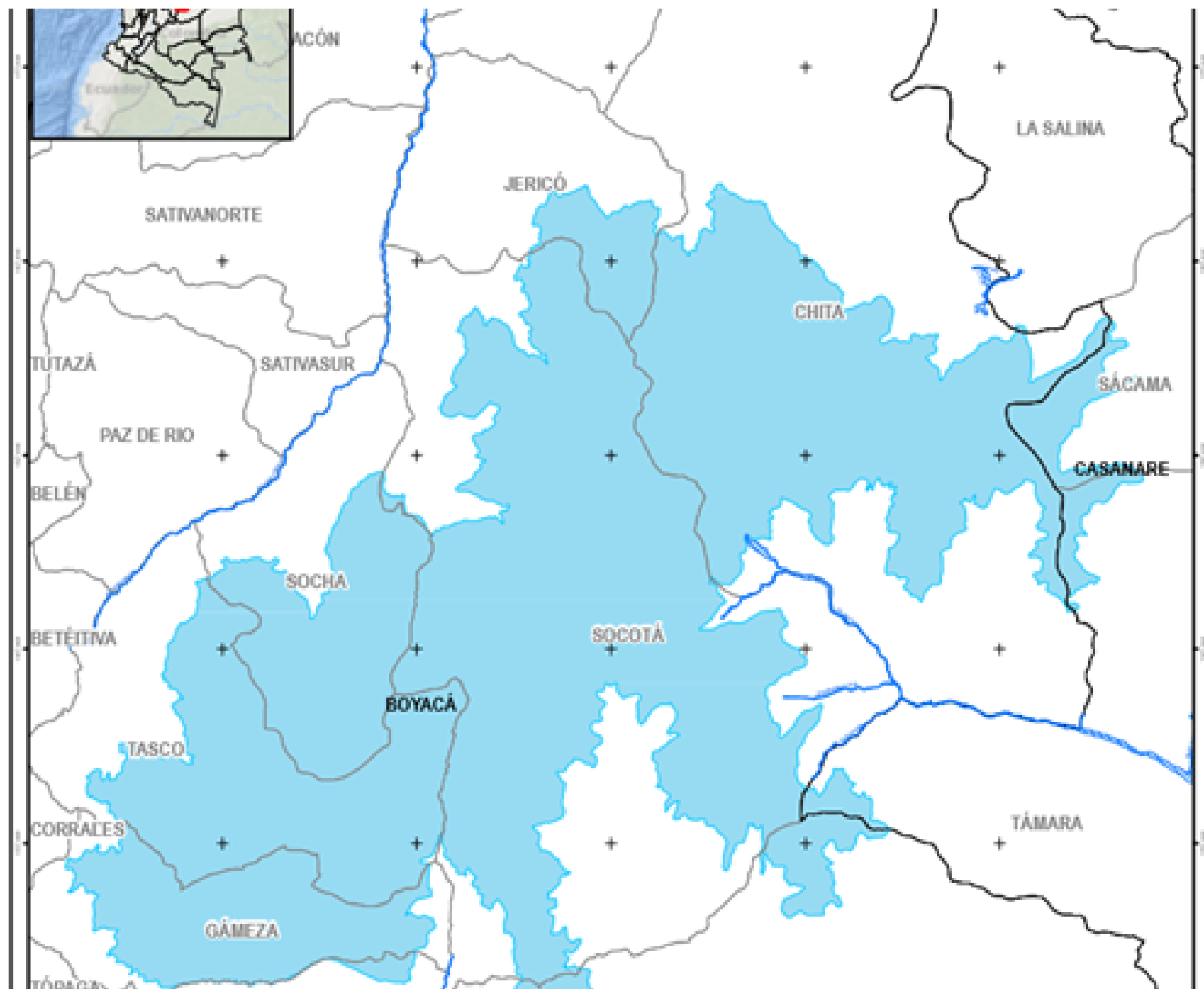
Please provide geo-referenced information and map where the project intervention takes place

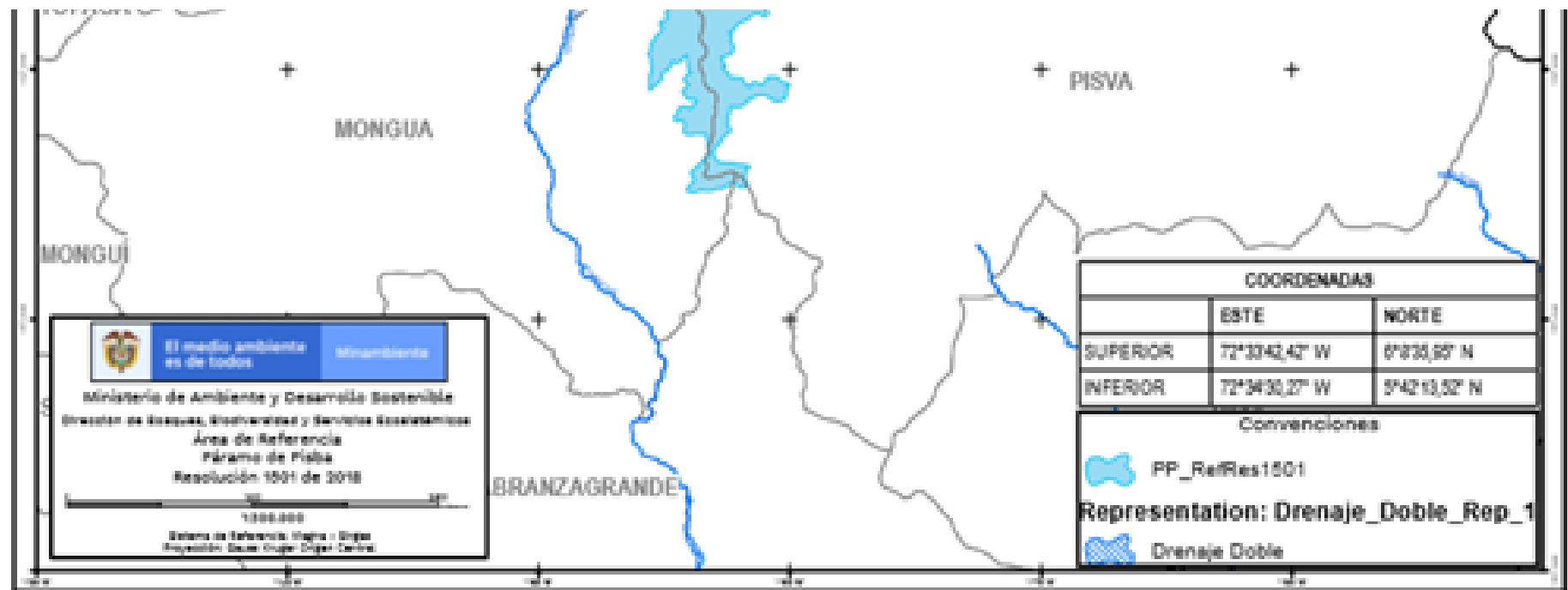
1. Santurbán Páramo Complex



2. Pisba Páramo Complex







3. Puracé Páramo Complex



