Ministerio de Ambiente y Desarrollo Sostenible
República de Colombia

United Nations Development Programme

Country: Colombia

PROJECT DOCUMENT

Conservation of biodiversity in landscapes impacted by mining in the Chocó Biogeographic Region

UNDAF Outcome(s):	Strengthened national, regional, and local capacities for integrated land management, emphasizing environmental sustainability and integrated risk management.
Expected CP outcome(s):	National capacities are strengthened to promote environmental sustainability, integrated risk management, and sustainable territorial planning.
Expected CPAP output(s):	Public agencies and civil society organizations strengthen their capacity for the design and implementation of programs and initiatives of environmental management that ensure the provision and maintenance of environmental goods and services, emphasizing conservation processes, restoration, and the sustainable use of strategic ecosystems; provision and rational and efficient use of energy; and integrated water resource management.
Executing Entity/Implementing Partner:	World Wildlife Fund (WWF)
Implementing Entity/Responsible Partners:	United Nations Development Program (UNDP)

Brief Description

Colombia is one of the world's most biologically diverse countries; the Chocó biogeographic region is an ecoregion recognized nationally and internationally as a conservation priority, since it is home for some of the most biodiverse forests in the world with regard to species richness and endemic flora. Nonetheless, in the last few decades an increasing amount of mining exploitation activities in the area has been reported, threatening the conservation of this biodiversity (BD). Consequently, the objective of this project is to safeguard biodiversity in the Chocó biogeographic region from the direct impacts of gold, silver, and platinum mining and indirect impacts of mining (population growth and development of agriculture, forestry, fisheries, and other sectors). This will be achieved through two intertwined components that will benefit the global, national, and local BD, as follows: a) will incorporate considerations for BD protection into the political, legal, and planning frameworks within the mining sector; and b) will conserve BD in the areas that are highly vulnerable to impacts from mining operations by strengthening the management effectiveness of four protected areas (PAs), developing two management and sustainable use plans for indigenous reserves and collective territories, and establishing two new multiple-use PAs covering at least 70,000 hectares (ha). In addition, the project aims to reduce local communities' dependency on mining activities by implementing and developing local sustainable business initiatives involving products derived from BD, including non-timber forest products (assai palm and *jagua*); and by supporting two communities from the collective territories with a Reducing Emissions from Deforestation and Forest Degradation (REDD+) feasibility analysis as a conservation incentive that will generate income from the sale of forest carbon credits in voluntary markets, potentially increasing the net profit for these communities. Finally, the project includes the development of a restoration pilot project in 100 ha of areas degraded by mining activities that will employ a restoration protocol in the areas prioritized by the project, which may serve as a reference for future replication at the regional and national scales.

Programme Period:

ATLAS Award ID: 00077977
Atlas Project ID: 00088495
PIMS #: 5035

Duration: 60 months
Start date: April 2014
End date: April 2019

Management arrangements: CSO implementation
PAC Meeting Date:

Total resources required	**36,492,752**
Total resources allocated:	*34,199,400*
- GEF	5,850,000
- CODECHOCO	1,372,353
- CRC	720,588
- CVC	995,294
- Dept. Government of Antioquia	478,066
- UASPNN	1,441,334
- MME	1,041,765
- WWF	500,000
- USAID	19,000,000
- UNDP	2,800,000
In-kind contributions:	*2,293,352*
- CODECHOCO	82,353
- CORPOURABA	25,000
- Dept. Government of Antioquia	185,999
- IIAP	1,500,000
- WWF	500,000

As agreed by (Government)

Month/Day/Year

As agreed by (Executor/Implementer)

Month/Day/Year

As agreed by (UNDP)

Month/Day/Year

LIST OF ACRONYMS

ANLA	National Environmental Licensing Authority
ANM	National Mining Agency
AP	Protected Area
AWP	Annual Work Plan
BIOREDD+	Biodiversity Program Reducing Emissions from Deforestation and Degradation
CAR	Regional Environmental Authority
CBD	Convention on Biological Diversity
CD	Steering committee
CECD	Darién Chocó Ecoregional Complex
CODECHOCÓ	Regional Sustainable Development Authority of Chocó
CONPES	National Economic and Social Policy
CORPOICA	Colombian Agricultural Research Corporation
CORPOURABA	Regional Sustainable Development Authority of Urabá
CPAP	Country Programme Action Plan
CTP	Tripartite Commission
CSO	Civil Society Organization
CVC	Cauca Valley Regional Environmental Authority
DMI	Integrated Management Districts
DNP	National Planning Department
EAE	Strategic Environmental Assessment
EIA	Environmental Impact Assessment
ENPSE	National Strategy Payments for Ecosystem Services
EOT	Land Use Zoning Scheme
GdC	Government of Colombia
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GSP	General Participation System
Ha	Hectares
IAP	Annual Project Report
IAVH	Alexander von Humboldt Institute
ICR	Rural Capitalization Incentive
IDEAM	Institute of Hydrology , Meteorology and Environmental Studies
IIAP	Environmental Research Institute of the Pacific
INCODER	Colombian Institute for Rural Development
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
km^2	square kilometer
M&E	Monitoring and Evaluation
MADR	Ministry of Agriculture and Rural Development
MADS	Ministry of Environment and Sustainable Development

METT	Management Effectiveness Tracking Tool
MP	Management Plan
MME	Ministry of Mines and Energy
MUPA	Multi-Use Protected Areas
NP	National Park
NTFP	Non-timber forest product
OIA	Indigenous Organization of Antioquia
NGO	Non-governmental organization
PAT	Action Plan to Three
PBOT	Land Use Master Plan
PDM	Mining Development Plan
PGAR	Regional Environmental Management Plan
PIF	Project Identification Form
PIR	Project Implementation Report
PMU	Project Management Unit
PGAR	Regional Environmental Management Plan
POMCA	Watershed Management Plan
POT	Land Use Zoning Plan
PPG	Project Preparation Grant
ProDoc	Project Document
PES	Payment for Ecosystem Services
RCU	Regional Coordination Unit
REDD+	Reducing Emissions from Deforestation and Forest Degradation (+)
SBAA	Standard Basic Assistance Agreement
SIAC	Colombian Environmental Information System
SINA	National Environmental System
SINAP	National Protected Areas System
SIRAP	Regional Protected Areas System
ToR	Terms of Reference
UASPNN	Administrative Unit of Natural National Park System
UNDAF	United Nations Development Action Framework
UNDP	United Nations Development Program
UNDP CO	United Nations Development Program Country Office
UPIS	Unifying Platform for Information Systems
UPME	Mining and Energy Planning Unit
USAID	U.S. Agency for International Development
USD	U.S. Dollars
WDPD	World Database on Protected Areas
WWF	World Wildlife Fund

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1. Situation Analysis

1.1. Context and global significance

1. The Chocó-Darién Ecoregional Complex (CDEC) is the name given to the set of biological and physical systems of the region that runs longitudinally between the Darién province in eastern Panama to northeastern Ecuador. In Colombia, the region is bounded on the west by the Eastern Cordillera and on the east by the Pacific Ocean (**Of the** approximately 45,000 species reported for Colombia, 7,000 to 8,000 are found in the Chocó biogeographic region; 2,000 of which are endemic to the region. Animal diversity records are equally notable, with over 800 bird species, 100 of which are endemic; 195 amphibian species, 88% of which are endemic; 210 reptiles species, 47% of which are endemic; and 180 mammal species, 6.6% of which are endemic. The mean annual temperature is close to 24°C, with a maximum average of 30°C and a minimum average of 18.6°C. The Chocó is probably the only ecoregion this size with such high precipitation levels, ranging from 4,000 millimeters (mm) to over 9,000 mm each year.

2. **Figure 1**).[1] The CDEC also includes the Urabá region, which is a stretch of Caribbean coast between northwestern Colombia and northeastern Panama.

3. The physical, biotic, and institutional characteristics of the Colombian portion of this region are described below, introducing the region's status as an ecoregion complex with a vast diversity of physical and biotic factors that make it one of the most biodiverse and unique regions in the world.

Environmental context

4. The Colombian Pacific region runs along western Colombia from the Gulf of Urabá to the Mataje River in the department of Nariño, comprising the department of Chocó and the western portion of the departments of Antioquia, Risaralda, Valle del Cauca, Cauca, and Nariño. The Colombian Pacific region includes flat lands between the Pacific Coast and the western slope of the Western Cordillera of Colombia[2].

5. One of the world's most important concentrations of biodiversity (BD) is found in the Chocó biogeographic region. The Colombian Chocó biogeographic region has a total area of 11.9 million hectares (ha) across the departments of Chocó, Antioquia, Risaralda, Valle del Cauca, Cauca, and Nariño.

6. Despite the fact that large portions of the CDEC are highly threatened, their ecological integrity is for the most part intact; approximately 70% of the original forest cover still remains, which amounts to 8,374,468 ha[3]. The predominant forest type is tropical moist forest. The Chocó biogeographic region is home to the world's most biodiverse forests in terms of species richness and endemic flora, which is due to a unique combination of evolutionary and ecological factors.

7. Of the approximately 45,000 species reported for Colombia, 7,000 to 8,000 are found in the Chocó biogeographic region; 2,000 of which are endemic to the region. Animal diversity records are equally notable, with over 800 bird species, 100 of which are endemic; 195 amphibian species, 88% of which are endemic; 210 reptiles species, 47% of which are endemic; and 180 mammal species, 6.6% of which are endemic. The mean annual temperature is close to 24°C, with a maximum average of 30°C and a minimum average of 18.6°C. The Chocó is probably the only ecoregion this size with such high precipitation levels, ranging from 4,000 millimeters (mm) to over 9,000 mm each year.

[1] Global 200 is a list of global ecoregions or bioregions identified by the World Wide Fund for Nature (WWF) as conservation priorities. Global 200 contains 238 global ecoregions: 142 terrestrial, 53 freshwater, and 43 marine. These ecoregions include BD and representativity levels that are considered to be outstanding at the global level. Many of those regions have been already classified as conservation priorities, given the enormous BD of tropical moist forests, including the Atlantic Forest in Brazil, the Chocó-Darién in northwestern South America, the North Borneo ecoregion, and others.
[2] WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién.
[3] Project Identification Form, PIF: "Conservation of Biodiversity in Landscapes Affected by Mining Activities in the Chocó Biogeographic Region."

Figure 1. Boundaries of the Chocó biogeographic region[4]

8. ***Climate***: Below 1,200 meters above sea level (masl), the mean annual temperature of the Pacific slope of the Colombian Andes varies between 22°C and 26°C, with a mean annual precipitation of up to 5,000 mm; major precipitation areas are found towards the north, with lower rain quantities in the south. The Andean montane forests found above 1,200 masl present precipitation levels that descend gradually along the altitudinal gradient, subjecting populations to different environmental conditions that include a mean annual temperature ranging between 14°C and 18°C and a mean annual precipitation of 3,000 mm[5].

9. ***Topography***[6]: Geostructures in the region include fold mountain ranges, hills and slopes, and large sedimentary basins. The predominant types of geographic features in this area are: a) flat slopes, covering at least 50% of the ecoregional complex; b) escarpments, which are mountaintops and higher parts of the landforms that

[4] IDEM
[5] WWF Colombia, Fundación Ecotrópico, CECOIN. 2008. Análisis Ecorregional para la Construcción de un Plan de Conservación de la Biodiversidad en el Complejo Ecorregional Chocó-Darién. Cali.
[6] WWF Colombia. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién. December 2012.

make up the mountain range; and c) inclined slopes, which cover approximately 20% of the area and correspond to alluvial fans and hilly systems such as the Baudó and Darién *serranías* (low mountain ranges).

10. ***Hydrology***: The water system of the Chocó biogeographic region receives the highest levels of precipitation and produces the highest water yields in the country. The major watercourses include the Patía, Mira, Baudó, Guapi, Telembí, Iscuandé, Guachicono, Sipí, San Juan, and Atrato rivers, in addition to important wetland areas such as those in the middle and lower Atrato River[7]. Although most of the Pacific region has a water surplus, the Dagua and Patía basins in Valle del Cauca and Cauca-Nariño, respectively, present a deficit of water that may reach critical levels according to assessments performed using the aridity index[8]. In contrast, the Atrato basin has the highest values of retention and water regulation index (greater than 0.85) in the country. With regard to water quantity flowing per unit area, the Pacific has the greatest yield in the country, estimated at 124 liters per second per square kilometer (l/s-km²)[9]. The Caribbean hydrographic area receives its most important water volume contributions from the Atrato-Darién region (76%). The Pacific, in turn, receives 64% of its water from the Amarales-Dagua (36%) and San Juan (28%) areas.

11. Hydrographic areas that integrate the Pacific region contribute 13% of the national water supply and present the greatest water yields (an average of 124 l/s-km^2), while 70% of the area presents yields greater than 100 l/s-km^2. Additionally, it is the area with the least anthropogenic pressure for water availability and has a great capacity to retain humidity and maintain its hydro-regulating properties. Anchicayá and Dagua are the only sub-zones under moderate anthropogenic pressure when taking into account the available supply during average years. The demand is high in the Dagua basin under dryer conditions, and is moderate for the Anchicayá, Calima, Sipí, and Mayo rivers in the Patía zone. Vulnerability to water shortage is very low in the rest of the sub-zone considering demand levels and the hydro-regulating capacity of the system.

12. ***Terrestrial Ecosystems***: In general, the CDEC includes ecosystems that range from lowland tropical rain forests to montane forests and páramos on the Andes mountaintops (**Figure 2**). The following types of vegetation cover are common: mangroves, shrublands, moist grasslands, wetlands and floodplain forests, lowland rain forests (tropical rain forests), montane forests, páramos, and dry forests. These ecosystems harbor a significant number of species with restricted or endemic distributions; for this reason, the region was included by Dinerstein[10] and collaborators as part of the top-priority ecoregions for conservation worldwide. **Table 1** summarizes the main ecosystems and vegetation types of the Colombia Pacific region.

[7] IDEAM, 2010. Estudio Nacional del Agua 2010. Instituto de Hidrología, Meteorología, y Estudios Ambientales. Bogotá D.C.

[8] The aridity index takes into account potential evapotranspiration (PET) and actual evapotranspiration (AET) as input for the following equation: AI = (PET-AET)/PET. Water Retention and Regulation Index: this index assesses the basis capacity to maintain a flow regime, based on soil-vegetation interactions, climactic conditions, and physical and morphometric characteristics of the basic. Calculations are based on an average daily flow-duration curve. In IDEAM, 2010. Estudio Nacional del Agua.

[9] IDEM.

[10] Dinerstein, E.D., D. Olson, A. Graham, S. Webster. S. Pimm, M. Bookbinder and G. Ledec. 1995. A Conservation Assessment of the Terrestrial Ecoregions of Latin America and the Caribbean. WWF World Bank. Princeton.

Table 1. Major landscapes and ecosystems of the Colombian Pacific region

Major landscape	Ecosystem	Vegetation Formations	Conservation Priorities
Moist, warm lowlands on flat to rolling slopes	Rainforests	Lowland flooded forests	
		Lowland non-flooded forests	Murrí, Rio Sucio, Suruquillo – Suquí, León, Currulao and Mulatos, Mira
		Foothill forest	
		Lower montane forest	Serranía del Baudó (Baudó mountain range)
		Lowland grasslands	Lower Atrato; Tumaradó – Bocas del Atrato, Perancho and Peyé sectors
		Mangroves	
Andean zone, all climates and humidity conditions	Rainforests	Foothill forest	Rio Sucio upper basin
		Lower montane forest	
		Upper montane forest	
	Dry forest or shrubland	Dry montane shrubland	Patía depression, Dagua enclave
	Páramo	Humid páramo	

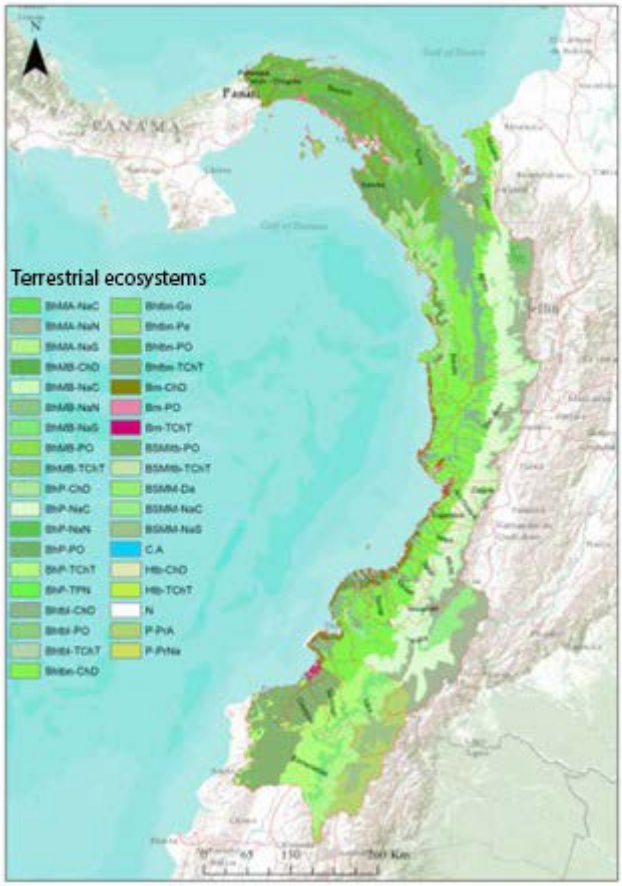
13. The most recent assessment of forest transformation in the Chocó biogeographic region was provided by the Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM) for the preparation of this report. A summary of deforestation in the area according to each of the region's biomes is presented in **Table 2**.

Table 2. Consolidated deforestation data for the Pacific Natural Region

Type of Coverage	2005 – 2010		
	Area (ha)	*Area (%)*	*Deforestation rate (ha/year)*
Stable forest	4,762,746	73,1%	
Deforestation	107,483	1,7%	21,497
Regeneration	1,001,341	15,4%	
Unstable forest	8,271	0,1%	
No info available	632,008	9,7%	
Total	6,511,849	100%	

Source: IDEAM.

Figure 2. Terrestrial ecosystems present in the Chocó-Darién Ecoregional Complex [11]



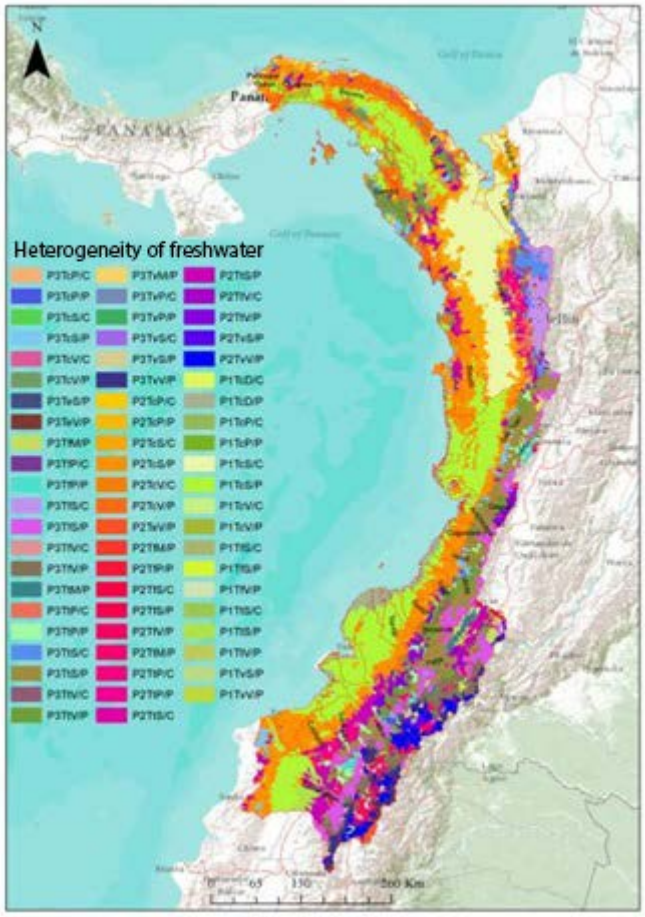
Source: IDEAM, 2012.

14. ***Aquatic Ecosystems***: The Colombian Pacific region contains 65 freshwater ecosystems[12] (**Figure 3**), resulting in part from the wide variation of slope and temperature gradients that cause heterogeneous and dissimilar landscapes, frequently alternating temperate and cold climates across relatively short distances as well as slope angles. The Andean area in the department of Nariño presents volcanic rocks alternated with sedimentary and metamorphic rocks, which also adds to the number of resulting ecosystems. In these varied geographic formations, 14 aquatic ecosystems are spread across 200,000 ha, representing 36% of the CDEC's total area.

15. Evidence suggests that anthropogenic activities have a similar impact on these units as they have on terrestrial ecosystems, as they modify hydrology and hydraulic properties of the area as well as water quality and drainage patterns. Eighteen (18) of those units experience pressure in over 50% of their areas; 14 units experience pressure in 25% to 50% of their areas; and 25 units experience pressure in 10% to 25% of their areas. Only eight units experience pressure in less than 10% of their areas.

Figure 3. Freshwater ecosystems present in the Chocó-Darién Ecoregional Complex[13]

[11] WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién.
[12] WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién.
[13] WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién.



Source: WWF Colombia, 2012.

16. ***Vegetation***[14]: The dominant type of vegetation in the CDEC consists of lowland moist to rain forests. Such predominant forests have a unique structure; they show high densities of low- and medium-height trees, scarce lianas, and abundant hemiepiphytic climbing plants[15]. In the CDEC, endemism rises to approximately 2,000 species, and its botanical richness oscillates between 8,000 and 9,000 vascular plant species out of the 45,000 recorded for the entire country (Forero & Gentry, 1989). In the department of Chocó alone, Murillo & Lozano (1989) reported 4,638 species of vascular plants belonging to 201 families and 1,376 genera. In the case of vascular plants, the contribution of this region to the list of Colombian endemic species has been calculated at 25%. Palms (*Arecaceae*) are a good example of the previously mentioned richness. The ecoregion is home to 34 genera and 135 species of palms. Among the genera with the greatest richness in the ecoregion is *Geonoma,* with 19 species; *Chamaedorea* with 14; *Aiphanes* and *Wettinia* with 11 each; and *Ceroxylon* with six. Thirty-five (35) palm species out of a total of 135 are endemic to the ecoregion, which is also home to a number of highly threatened palm species. For example, three critically endangered palm species (or "coquitos") are found in the northern portion of the Chocó department: *Reinhardtia gracilis*, *R. simplex*, and *R. koschnyana*.

[14] WWF Colombia, Fundación Ecotropico, CECOIN. 2008. Análisis Ecorregional para la Construcción de un Plan de Conservación de la Biodiversidad en el Complejo Ecorregional Chocó-Darién. Cali.
[15] WWF Colombia, Fundación Ecotropico, CECOIN. 2008. Análisis Ecorregional para la Construcción de un Plan de Conservación de la Biodiversidad en el Complejo Ecorregional Chocó-Darién. Cali.

17. ***Fauna***: The Chocó biogeographic region, which overlaps with most of the Chocó-Darién Ecoregional Complex, is characterized by high levels of diversity, biological uniqueness, and high levels of endemism (Haffer 1969; Haffer & Prance 2001; Mast et al., 1999; Prance & Haffer 2002; among others). The region is classified as a "Critical Area" or "Global Biodiversity Hotspot" due to the current threats to its rich BD and high levels of endemism. **Table 3** presents a summary of the species richness and endemism for the most studied taxonomic groups in the country. Amphibians are a group that illustrates the region's diversity. The Pacific ecoregion is often presented as an important area with regard to amphibian endemism, as there are 331 species recorded along the CDEC, 230 of which are endemic to the region. Colombia has the highest number of endemic species in the world with 97 (42.1%). In the CDEC there are still isolated populations of several critically endangered frog species, such as Lehmann's Poison Frog (*Dendrobates lehmanni*) and the Golden Poison Arrow Frog (*Phyllobates terribilis*).

Table 3. Species richness and endemism in well-studied taxonomic groups in the Colombian Pacific region

Group	Number of Species in the Chocó Biogeographic Region	% of the Country's Total	Level of Endemism
Vascular Plants	8,000 to 9,000	20	25% of the country's endemisms
Butterflies	1,450	41	36% of the *Riodinidae* species
Amphibians	331	45	69% of the region's total
Birds	838	47	
Mammals	180	38	14% of the region's total

18. The Pacific plains and the western Cordillera are also areas of great importance for migratory birds coming from North America. There are reports of 86 migratory bird species for the northern portion of the department of Chocó. Among these, the following species belonging to an IUCN threat category have been observed: *Wilsonia canadensis*, *Dendroica cerulean*, and *Vermivora chrysoptera*. These species are a good indicator of the importance of the Pacific region of Colombia for the conservation of globally important BD.

19. While there is no comprehensive study for freshwater fish in the Colombian portion of the Chocó biogeographic region, specific studies have indicated that the region also contains a significant number of species of these vertebrates. Data from Farallones de Cali National Park shows that the park has five freshwater fish species listed as endemic and/or at risk: *Ichthyoelephas longirostris*, *Parodon caliensis*, *Callichthys fabricioi*, *Hyphessobrycon poecilioides*, and *Thichomycteros caliense*.

20. ***Ecosystem Services***: According to the Millennium Ecosystem Assessment (MA), "Ecosystem Services" are defined as benefits obtained by human populations from ecosystems. Water provision and carbon storage are among the most well-known ecosystem services provided. However, there are other essential ecosystem services provided to communities living close to forests, such as food and firewood, regulation of nutrient cycles, pollinators for crops, etc. The forests in the Colombian Pacific region serve as important providers of ecosystem services such as sources for animal protein and wild plants, as well as serving as a genetic diversity bank. To date in Colombia there has been little data gathered on these services, and many of these services have not been quantified.

21. ***Sediment Retention***[16]: Ecosystems within the Baudó mountain range–Los Saltos–Darién and mangrove forests have been linked to decreasing rates of erosion, with losses of only 1 ton/ha per year, highlighting them as important barriers to erosion. The study carried out by the World Wildlife Fund (WWF)[17] suggests that

[16]WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién. Cali, Colombia
[17] IDEM

ecosystems in dry or transitional climates are a less effective barrier against soil loss, while humid forests associated with significant slopes provide better soil retention. However, the data provided do not differentiate variables in a way that allows the analysis of sediment retention exclusively in terms of vegetation coverage types.

22. ***Carbon Storage***: IDEAM has estimated the carbon contents of forests in the Pacific region; the data are presented in **Table 4**.

Table 4. Consolidated Data of Carbon Content by Forest Type in the Pacific Region[18]

Type of forest	Symbol	Carbon ton/ha	2010	
			Area (ha)	*Area (%)*
Tropical dry forest	bs-T	48.1	26,306	0,47%
Moist tropical forest	bh-T	132.05	1,216,121	21,92%
Very moist tropical forest	bmh-T	82.5	4,067,345	73,30%
Tropical rainforest	bp-T	86.1	195,708	3,53%
Moist pre-montane forest	bh-PM	57.05	7	0,0001%
Very moist pre-montane forest	bmh-PM	91.45	24,829	0,45%
Pre-montane rainforest	bp-PM	106.75	18,759	0,34%
TOTAL			5,549,075	100%

Source: IDEAM.

23. ***Water production and regulation***: The average yearly water production in the Chocó biogeographic region is 2,325 mm, peaking at 10,584 mm/year and falling as low as 40 mm/year. A little over 36.5% of the CDEC has a water sheet flow value greater than 3,000 mm/year in the area contained within the foothills at the middle Atrato River basin and the Mira-Güiza River basin. The 2,000 to 3,000 mm/year range covers 16% of the ecoregion; 1,000 to 2,000 mm/year covers 18%; and 16% corresponds to regions with < 1,000 mm/year, in areas where there is water shortage or limitations for water use. The presence of a water surplus results from greater precipitation than evapotranspiration levels in most of the area. As in the case of sediment retention, the data presented by WWF Colombia[19] in its basin prioritization study does not differentiate variables that would allow the analysis of retention capability per type of vegetation.

24. ***Protected Areas***: Seventy-seven (77) PAs and conservation areas have been declared within the Chocó biogeographic region of Colombia, with a total cover of approximately 1,980,000 ha (including both marine and terrestrial areas). The CECD includes 1,108,000 ha of terrestrial PA and conservation area (56% of the total) (see **Table 5**); this represents 9% of the CECD in Colombia. National parks (i.e., Sanquianga, Isla Gorgona, Doña Juana, Puracé, Munchique, Farallones de Cali, Bahía Málaga, Tatamá, Utría, Los Katíos, and Paramillo) are the most extensive conservation categories present in the area (4.5% of the CDEC).

Table 5. Protected Areas and Conservation Strategies in the Colombian Pacific Region

Category	Number	Area (ha)	% CDEC	% Colombia	Declared by	Administered by
Afrodescendants Special Management Area	1	9,712	0.052	0.080	INCODER	Owner community
Indigenous Special Management Area	1	32,226	0.172	0.267	INCODER	Owner community
Integrated Management District	5	67,269	0.359	0.557	ARC	ARC

[18]IDEAM. Unpublished data.
[19] WWF Colombia. 2012. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién. Cali, Colombia

Municipal Natural Park	4	181	0.001	0.001	ARC	ARC
National Natural Park	11	531,977	2.836	4.406	UASPNN	UASPNN
Regional Natural Park	3	15,459	0.082	0.128	ARC	ARC
Special Forest Reserve	6	254,768	1.358	2.110	MADS	ARC
Protection Forest Reserve	9	174,988	0.933	1,449	ARC	ARC
Regional Forest Reserve	1	164	0.001	0.001	ARC	ARC
Natural Reserve	1	708	0.004	0.006	ARC	ARC
Civil Society Natural Reserve	34	5,453	0.029	0.045	UASPNN	Private
Fauna and Flora Sanctuary	1	8,248	0.044	0.068	UASPNN	UASPNN

Source: Adapted from RUNAP http://runap.parquesnacionales.gov.co/.

25. ***Socioeconomic context***: The Chocó biogeographic region of Colombia comprises the western portion of the departments of Antioquia, Cauca, Chocó, Nariño, Risaralda, and Valle del Cauca, which is equivalent to approximately 10% of the country's continental territory. The region is characterized by a low population density at close to only 9 inhabitants per km^2, versus the national average of 32 inhabitants per km^2[20].

26. According to data from the WWF and the 2005 national census, the region has a population of 1,976,617 inhabitants, 86,832 of which identify themselves as indigenous (4.4%) and 1,016,675 as afrodescendants (51%). The same sources state that the municipalities with the highest demographic concentrations are Valle del Cauca (27%), Antioquia (25%), and Nariño (24%). The largest population densities are in the capitals of Valle del Cauca (72%), Chocó (60%), and Antioquía (58%). The greatest concentrations of populations in rural areas occur in Risaralda and Cauca (75% and 74%, respectively). With regard to the afrodescendant and indigenous populations, the data show that the largest concentration of afrodescendants occurs in Valle del Cauca and Nariño (24%) and Chocó (23%); the departments with the largest indigenous populations are: Chocó (33%), Nariño (30%), and Antioquia (19%) (see

[20] WWF Colombia, Fundación Ecotropico, CECOIN. 2008. Análisis Ecorregional para la Construcción de un Plan de Conservación de la Biodiversidad en el Complejo Ecorregional Chocó-Darién. Cali.

27. **Table** 6).

Table 6. Demographics of the Chocó Pacific Region

Department	Total population	Greatest Demographic Presence (%)	Urban population	% Urban	Rural population	% Others	Afrodescendant	% Afrodescendant	Indigenous	% Indigenous
Antioquia	493,859	25	285,389	58	208,470	42	197,692	19	16,609	19
Chocó	305,470	15	182,362	60	123,108	40	230,771	23	29,052	33
Risaralda	27,141	1	6,879	25	20,262	75	1,779	0	8,173	9
Valle del Cauca	534,430	27	385,459	72	148,971	28	246,680	24	3,912	5
Cauca	132,380	7	34,339	26	98,041	74	100,622	10	3,072	4
Nariño	483,337	24	174,369	36	308,968	64	239,131	24	26,015	30
TOTAL	**1,976,617**	**99**	**1,068,797**		**907,820**		**1,016,675**	**100**	**86,833**	**100**

Source: Adapted from 2005 DANE census and WWF data presented in the Ecoregional Analysis 2008.

28. The region hosts a highly diverse population of indigenous, afrodescendant, and mixed race communities. Based on the 2005 census, more than half the afrodescendant population of the country (57.9%) lives in the departments of Antioquia, Valle, Cauca, Nariño, and Chocó. In the Chocó, 82.1% of the population is afrodescendant. It is worth noting that 35.8% of the indigenous Colombian population reside in these five departments and mostly belong to the Embera, Awa, Waunaan, Cuna, and Paez groups[21]. This ethnic composition and the history of the area have resulted in special forms of land ownership, such as indigenous and afrodescendant communities having collective titles that amount to 7,284,123 ha (Sarmiento, 2012), representing over 65% of the region.

29. In addition, the Colombian Pacific region[22] is one of the areas with the highest Unsatisfied Basic Needs (UBN) index and poverty levels in the country. The index of poverty nationwide is 49.7%; 64.7% of the inhabitants of the Colombian Pacific region are poor. A similar relationship is observed with regard to extreme poverty; 28.1% of the region's population is extremely poor, versus the national percentage of 15.7%. The illiteracy rate in the region is 21%, compared with the national level of 10% (DNP 2007, Conpes 3491).

30. ***Productive activities***: Productive activities in the area consist mainly of mining, forestry (in natural forests), some livestock production, and subsistence agriculture. Details of these activities are described below. Emphasis is given to mining activities as the project's objective is to prevent the development of mining activities in areas that are important to BD conservation.

31. For the most part, mining activities consist of gold and platinum extraction. These activities have been going on in the Chocó region for several decades[23]. Currently, mining is performed using one of three major extraction systems, namely: artisanal, semi-technical, and technical. Artisanal mining uses manual tools and elements made by the miners themselves such as pans, pickaxes, shovels, and other tools. Semi-technical mining adds technical methods to artisanal mining, such as the use of ground lifts, dredgers, and high- and low-pressure pumps that

[21] Source: DANE (2005) Censo Nacional de Población. The information in this section corresponds to a territory larger than the Chocó biogeographic region.

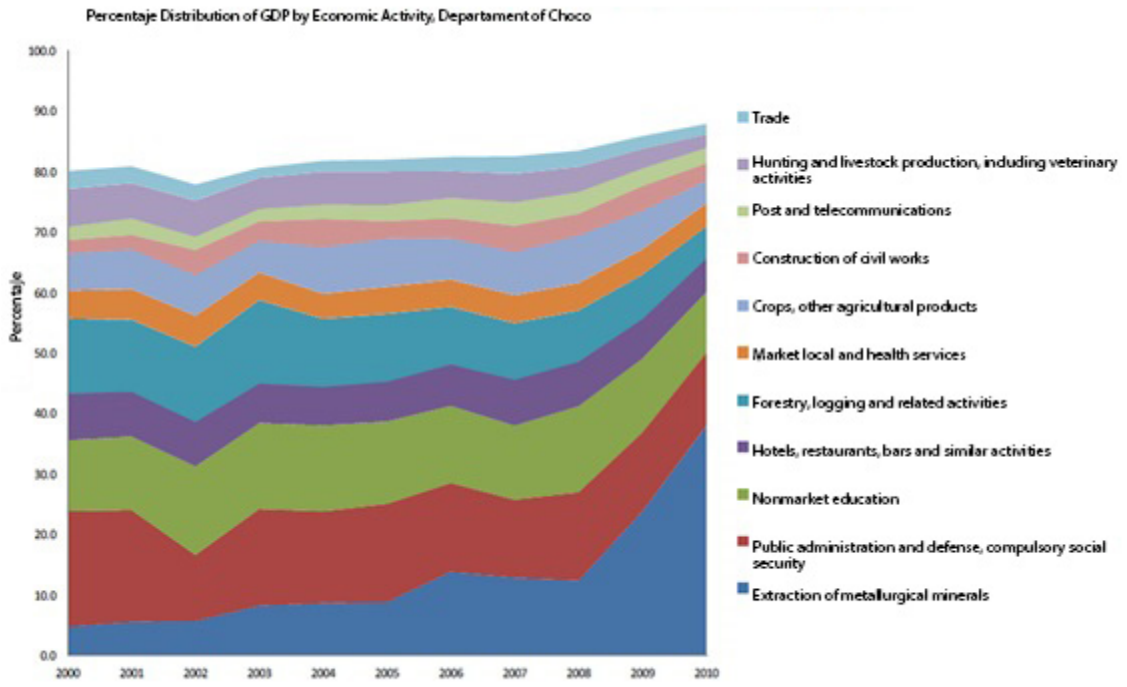
[22] Colombia is subdivided into regions which are the limited by the same administrative boundaries as departments are: Atlantic region, Andean region, Pacific region, Orinoquía region, and the Amazonas region. The Chocó biogeographical region as a Colombian ecoregion is a part of the Pacific region.

[23] IIAP, Protocolo de restauración ecológica de áreas disturbadas por minería, en el Chocó Biogeográfico, 2012.

improve performance and productivity in mineral extraction. Mining activities, particularly technical ones, use heavy machinery to remove large amounts of land that are later dumped into watersheds, causing severe environmental damage due to silting, river course alterations, and other impacts. This disposal activity also generates contamination from improper use and disposal of toxic substances such as mercury, causing negative impacts that lead to social, economic, and cultural imbalances in local communities[24].

32. Mining activities have increased considerably during the last decade. According to data from the National Mining Agency, there are at least 450,000 ha within the Chocó region under mine leases. Furthermore, there are approximately 1,790 requests pending for mining licenses that will affect 3.63 million ha. With regard to mining production, precious metals such as gold, silver, and platinum are the most desirable. Gold production has sharply increased on the national scale, as has been occurring in the Chocó biogeographic region. The departments of Antioquia and Chocó are the most important producers in this region. According to the WWF (2012), the legal mining of precious metal clusters is occurring in the middle and upper Atrato River and upper San Juan River basins, as well as in the foothills of the western Cordillera between the Saija and Telembí rivers. The Junananbú River basin is one of the areas where the threat is most severe—approximately 7% of the basin is under some type of mining lease (see **Figure 4**).

Figure 4. Percentage Distribuiton of Gross Domestic Product by Economic Activity, Department of Chocó



Source: Sarmiento, 2012; data from DANE 2012.

33. With regard to other economic activities, the region is noted for its rich forestry resources. Unique environmental conditions and the region's geographic isolation have led to the flourishing of the mostly illegal practice of timber exploitation and to the region's becoming an important source of income and manual labor for

[24] Ibid.

local populations, particularly in the department of the Chocó. Sawmills located on the banks of the rivers process timber for transportation by boat to the municipalities of Turbo and Quibdó, which act as a major timber storage centers. The timber is then distributed to other cities via road networks[25] (IIAP, 2011).

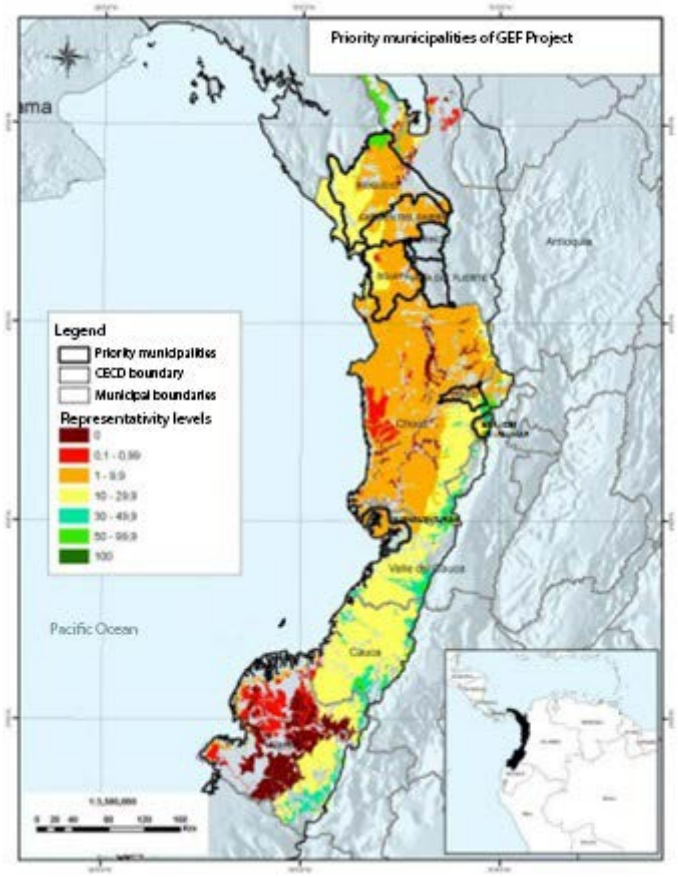
34. In addition to mining and forest-based product extraction systems, agricultural and livestock economic activities are also practiced in the region[26]. According to the WWF[27], agriculture in the area produces mostly plantains, rice, coconuts, kalo, sugarcane, and other basic staples; other production activities include fishing and coca plantations[28]. Agricultural and livestock production yields are low, mainly due to the lack of adequate techniques for exploitation and management, lack of technical assistance, limited access to markets, and limitations of road networks and product marketing and sale.

35. The traditional productive systems of indigenous and afrodescendant communities persist and are mainly for subsistence. These include mostly agriculture and livestock activities on small plots of land (1- to 2-ha plots); raising farm animals and fish in ponds; the exploitation of natural resources through hunting, fishing, and fruit-gathering; and also artisanal mining of alluvial deposits. The relative importance of such activities shifts during the year; for example, during spawning season, fishing becomes the main productive activity of the communities. Agricultural production is destined for sale at the local market and for domestic consumption. Approximately 42 traditional crops have been identified, including plantains, corn, rice, cassava, which are associated with agroforestry systems, and fruit or mixed gardens associated with domestic plots (peach-palm or *chontaduro*, *borojó*, lemon, guava, pineapple, and others[29]).

36. ***Project Intervention Areas***: The following criteria were established in order to select the areas of project intervention: i) institutional strength of local authorities; ii) project implementation history; iii) social feasibility; iv) mining activities; v) security conditions; and vi) geographic location. In accordance with the qualitative scoring, the areas that will undergo direct intervention are: a) the middle and upper Atrato[30] River basin, which has a geographic influence on the municipalities of Vigía del Fuerte, Murindó, and Frontino in the department of Antioquia and the municipalities of Bojayá, Carmén del Darién, and Riosucio in the department of Chocó; b) the upper San Juan River basin in the municipalities of Tado and San José del Palmar; and c) the municipality of Buenaventura in the department of Valle del Cauca (see Prioritized Areas Analysis 8.7). The total population that is directly and indirectly affected by the project is approximately 400,000 people (see **Table 7**). The following paragraphs provide a general description of these areas.

[25] Despite having extraction records of large amounts of timber, there are no figures that make possible to establish a cost-benefit relationship for the local population (Chocó Biogeográfico Volume I IIAP page 59).
[26] Due to land suitability, but not high productivity per square kilometer.
[27] WWF Colombia. Final Report. Cuencas Prioritarias del Complejo Ecorregional Chocó – Darién. December 2012.
[28] Armed groups benefit from this crop, and the State is in charge of developing alternatives for illicit crop elimination in the region.
[29] Ibid.

Figure 5. Areas of Intervention by the Project



Source: WWF.

Table 7. Population Distribution of the Prioritized Municipalities

Department	Prioritized Municipalities	Population	Greatest Demographic Presence (%)
Antioquia	Murindó	3,736	0.9
	Vigia del Fuerte	5,487	1.4
	Frontino	20,031	4.9
	Subtotal	**29,254**	**7.2**
Chocó	Bojayá	8,796	2.2
	Riosucio	13,831	3.4
	Carmen del Darién	4,191	1.0
	Tadó	15,962	3.9
	San José del Palmar	3,998	1.0
	Subtotal	**46,778**	**11.6**
Valle del Cauca	Buenaventura	328,794	81.2
TOTAL		**404,826**	**100**

Source: Adapted from 2005 DANE Census and WWF data presented in the Ecoregional Analysis 2008.

37. Afrodescendant and indigenous communities of the middle and lower Atrato region own large extensions of forests as collective territories. These communities are found within the limits of the departments of Chocó and Antioquia, and present the lowest indices of social and economic development in the country. The reason behind id due in part to the adoption of economic models based on unsustainable extraction of natural resources, in which the main activities of mining and timber extraction employ inappropriate techniques and take advantage of loose enforcement as well as the lack of government presence.

38. The challenge faced by these communities is to find, throughout their territory and its forests, a source of goods and services that has commercial value under sustainable extraction practices, contributing to the development of the population. This requires identification of goods and services other than timber (or mining precious metals), which has dominated the existing market for forest products. Up to now, typical extractive activities do not yield economic benefits at the local and regional levels, nor do they generate sustainable venture processes or include local institutions, resulting in threatened and exhausted natural resources.

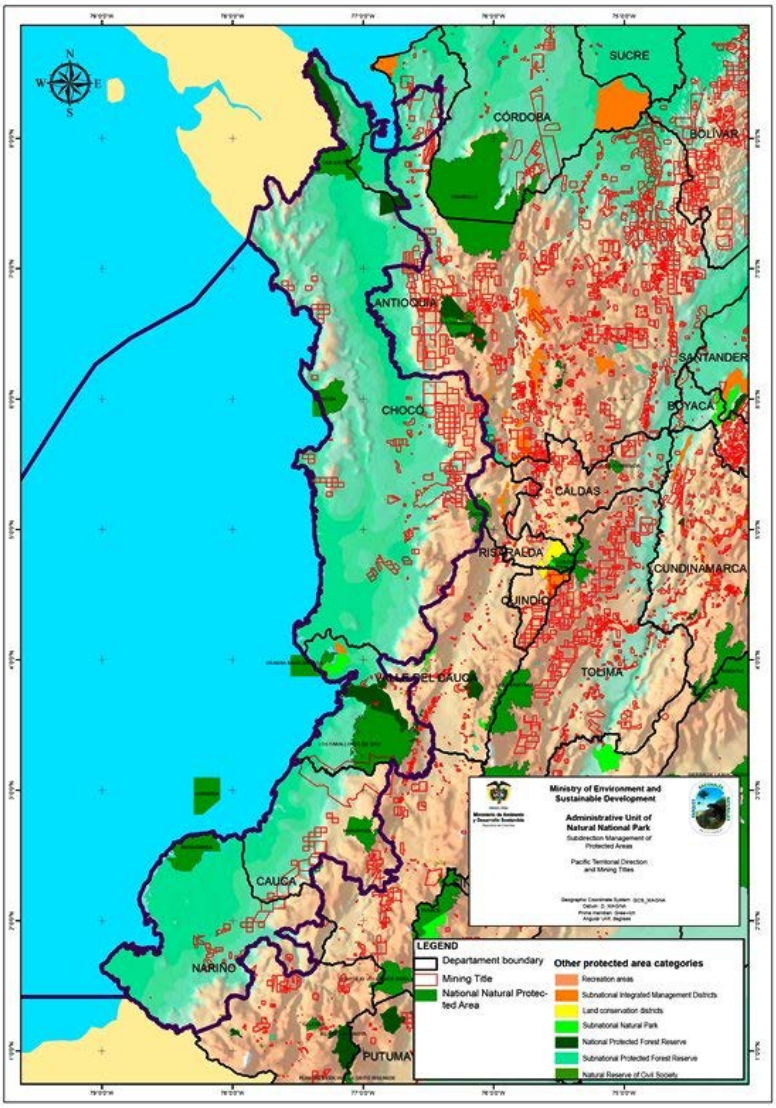
39. Within this context, BD is an opportunity for development since forests in general are well known as a source of products that attract the interest of industries dedicated to dyes, fruit pulp, medicinal extracts, and inputs for cosmetics. However, this requires establishing a new relationship between communities and the forest through the identification of new products and the development of value chains operating on principles of fair and equitable distribution of benefits.

40. The upper San Juan basin region features a predominantly extractive economy, with mining and forestry as its main activities. The environmental impact of intensive forestry exploitation along with gold, silver, platinum, limestone, molybdenum, and copper extraction represents a threat to the region's ecosystems and the cultural integrity of the local communities.

41. Nonetheless, it is necessary to point out that artisanal mining in the communities may be performed following environmental regulations. Such mining is developed within the communities' mining areas as recognized by the Ministry of Mines and Energy (MME). In order to enable the development of mining activities, both artisanal miners as well as informal bulldozing miners have been involved in a local adaptation and legitimation process through agreements with the key local stakeholders: municipal administration, land owners or tenants, community councils, and the miners themselves. In 2000, dialogues between two councils of afrodescendant communities (ASOCASAN in Tadó and COCOMACIA in Condoto) and several institutions and nongovernmental organizations (NGOs) identified artisanal mining in afrodescendant communities as a strategy for land protection and BD conservation. Today, the biggest challenge for these communities is to construct a territorial planning scheme which allows the coexistence of mining with the generation of income through payment of environmental services (PES) mechanisms and other environmental conservation and restoration plans.

42. In addition, the project will support four (4) national PAs, which are: Las Orquideas National Park, Tatamá National Park, Farallones de Cali National Park, and Munchique National Park. The project will support complementary activities with the municipal administrations included in the previously mentioned national parks as well as the municipalities of San José del Palmar and Buenaventura.

Figure 6. Protected Areas Map – National Parks and Other Subnational Categories



Source: National Parks.

Policy and legislative context

43. Mining and environmental public policy and regulation in Colombia are framed by the 1991 Political Constitution. The constitution establishes principles and general objectives of the country's actions to guarantee sustainable development and the prevalence of public interests[31]. The constitution also states the obligation of the State and of people to protect the nations' natural richness[32]. It recognizes private property as a fundamental right but not in an absolute manner as it has an intrinsic social function that implies obligations, including ecological functions[33]. It also expressly establishes the State's ownership of the subsoil and non-renewable natural

[31] 1991 Political Constitution of Colombia, Article 1
[32] Idem, Article 8.
[33] Idem, Article 58.

resources[34], as well as the conditions for the exploitation of these in a lawful way[35]. Article 79 of the constitution establishes the right of all people to enjoy a healthy environment, while Article 80 establishes the State's fundamental role in planning and management and exploitation of natural resources to guarantee sustainable development, conservation, restoration, or substitution. The State is also responsible for the prevention and control of environmental deterioration factors by imposing legal sanctions and demanding compensation for damages. The constitution also recognizes the right to collective property as well as the self-determination of communities with rights on collective property.

44. The protection of renewable natural resources is regulated by the Renewable Natural Resources Code[36] and Law 99/2013[37]. The Ministry of Environment and Sustainable Development (MADS) is the institution in charge of providing policy and guidelines for environmental and natural resources management in the country. Law 99/2013 also establishes the Administrative Unit of Natural National Park System (UASPNN), an entity under the wing of the MADS responsible for the administration of the National System of Protected Areas. The same law creates and organizes Regional Autonomous, and Sustainable Development Corporations (CARs), which are in charge of executing policies, plans, and national programs in environmental topics, as well as regional policies in their area of jurisdiction. Furthermore, Law 99 assigns environmental authority to municipalities and establishes that the mayor and the chief of police are authorities and have the full support of the National Police for control and monitoring of environmental and renewable natural resources[38]. The National Environmental Licensing Authority (ANLA) was established in 2001[39].

45. The Mining Code (Law 685/2001) states that the MME is the highest mining authority in the country and its responsibility includes non-renewable natural resources administration to ensure its greatest and most efficient utilization. The MME should guarantee the protection of natural resources and the environment and ensure environmental conservation and restoration in accordance with the principles of sustainable development and environmental policies produced by the competent environmental authority.

46. In the current institutional scheme, the MME delegates its administrative functions related to mining to the National Mining Agency (ANM)[40], the Geological Service[41], and the Departmental Government of Antioquia. Another entity that is a part of the public institutions regulating the mining sector is the Energy and Mining Planning Unit (UPME)[42], which is in charge of planning the use and exploitation of energy and mining resources, articulated with other entities in the energy and mining sector, as well as producing required energy and mining information.

47. **Figure** 6**7** shows the institutions at the local, regional, and national levels that are involved in mining projects and natural resources administration, particularly in the Chocó biogeographic region.

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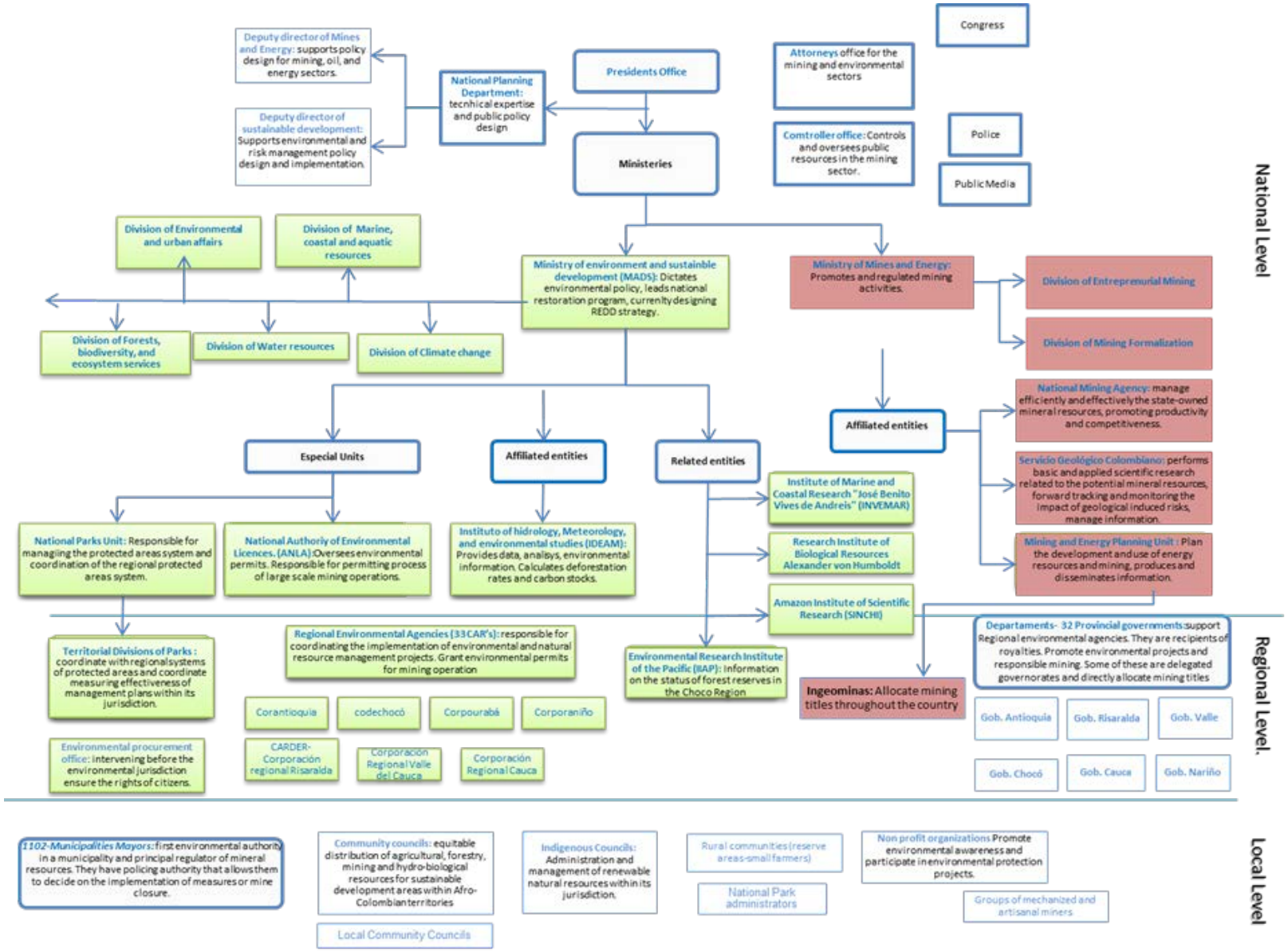
[34] Idem, Article 332.
[35] Idem, Article 360.
[36] Decree 2811/1974. Renewable Natural Resources Code
37 Creation of the Ministry of the Environment, nowadays the MADS, and proclaims it as the directing organism for environmental and renewable natural resources management.
[38] Idem. Article 65
[39] Decree 3573/2011
[40] Created by Decree 4131/2011
[41] This entity changed its legal nature as a public establishment to a Scientific and Technological Institute with a legal identity and administrative, technical, financial, and patrimonial autonomy, affiliated to the MME and nowadays a part of the SNCTI, the National System for Science, Technology, and Innovation.
[42] It is a national Special Administrative Unit, of a technical nature, affiliated to the MEE, governed by Law 143/1994 and Decree 255 of January 28, 2004.

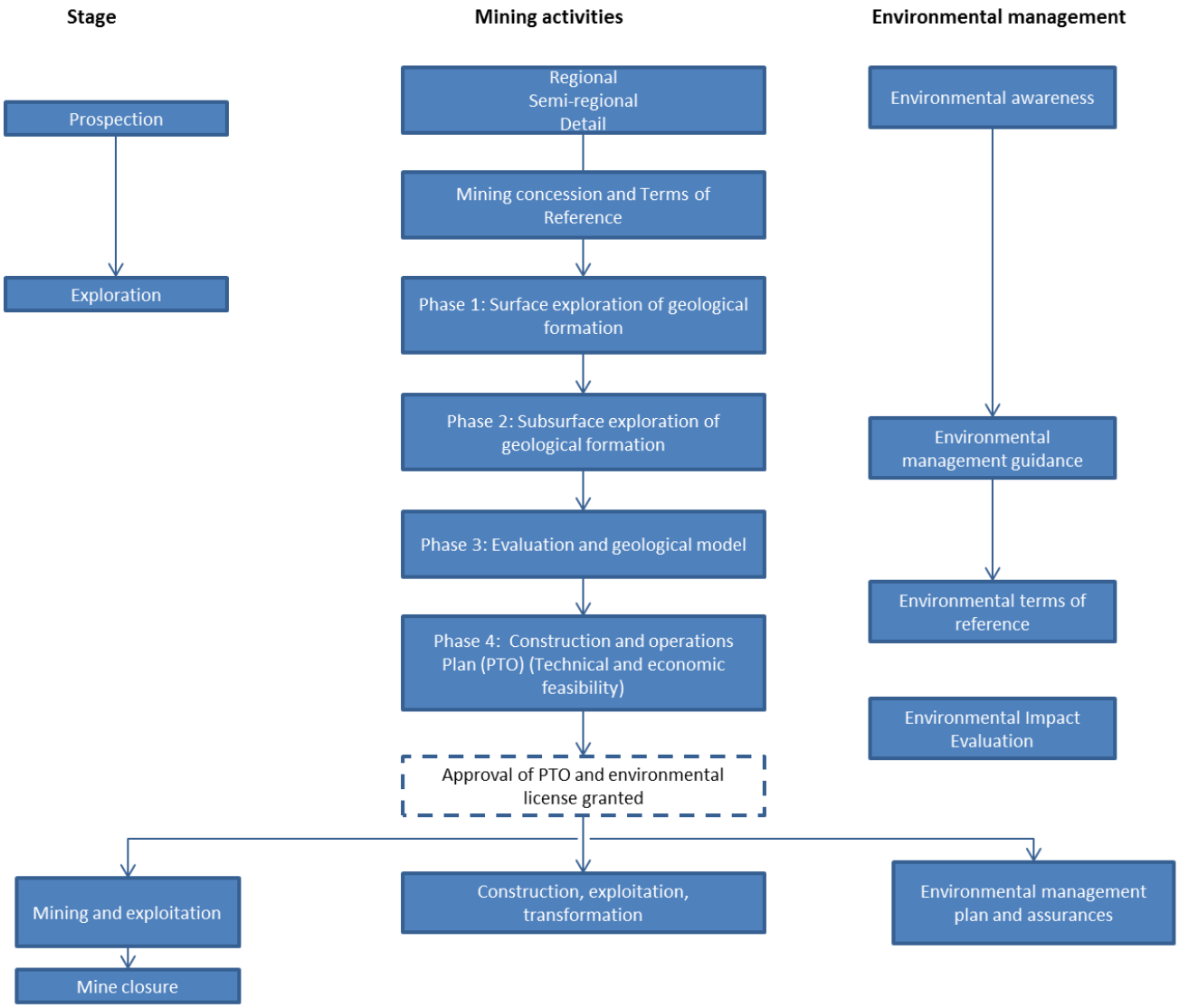
Figure 7. Institutional Organization and Responsibilities of the Mining Sector in Colombia (reference to the Chocó Biogeographic Region)



48. Environmental instruments that are essential in the mining operation cycle are environmental management plans (EMPs), environmental impact assessments (EIAs), environmental licenses, concession permits for the use of renewable natural resources, environmental guidelines, and authorization in cases where such instruments may be required. There is an extensive environmental legal framework that must be adhered to during the development of mining operations. The legal framework is detailed in Annex 8.8.

49. **Figure 8** shows the different phases and procedures required for mining operations.

Figure 8. Different Stages and Procedures during Mining Operations



50. Although Colombia has prepared a policy framework to face climate change (CONPES 3770; the institutional strategy for the articulation of policies and actions regarding climate change in Colombia), the country is still in an ongoing process to consolidate the basic institutional framework for the implementation of strategies described therein. Nonetheless, the creation of Regional Climate Change Nodes, 19 in total, that are coordinated by CARs and that currently develop activities towards climate change adaptation are worth noting. The Pacific node comprises four CARS: the Cauca Valley Regional Environmental Authority (CVC), the Regional Authority of Cauca (CRC), the Regional Sustainable Development Authority of Chocó

(CODECHOCO), the Regional Sustainable Development Authority of Nariño (CORPONARIÑO); and one urban environmental authority (Dagma in Cali). With regard to mitigation actions, the country is currently receiving support from the UNDP and the World Bank, among others, for the design of a National REDD+ Strategy to achieve several of the provisions found in the CONPES document.

51. Likewise, Colombia has prepared two National Communications on Climate Change. National Communications are periodic reports delivered to members of the United Nations Framework Convention on Climate Change (UNFCCC) to assess the country's current situation on climate change issues. IDEAM was designated through Decree 291 of January 29, 2004 as the entity responsible for preparing Colombia's National Communications. In 2001, Colombia presented its first National Communication to the UNFCCC. This document presents projections for the year 2050 of a mean annual air temperature rise of 1°C and 2°C and a precipitation variation of ± 15%, which would lead to the disappearance of 78% of snowcaps and 56% of páramos, while also causing a 40-centimeter (cm) rise in sea level in the Caribbean coast and a rise of 60 cm in the Pacific Coast. The conclusion of this first study was that the country is highly vulnerable to the effects of climate change, despite emitting only 0.25% of the world's carbon dioxide. The Second National Communication presented the national inventory of sources and sinks of greenhouse gases for years 2000 through 2004. These estimates were made based on available information and using technologies approved by the UNFCCC Conference of the Parties. The results obtained allowed the identification of strengths and opportunities for improved flow of information and inter-institutional articulation; in turn, these become a source of contributions for identification and consolidation of information from different sectors for future inventories[43].

1.2. Threats, impacts, and root causes

52. One of the main threats to BD in Colombia is the fact that the country is considered one of the three countries with the greatest mining potential in the world; as a result the mining industry is growing rapidly. For example, between 2007 and 2008, mining concessions increased from 2,711 to 7,343, covering almost 4,000,000 ha of the country's territory.

53. BD in the northern portion of the Chocó biogeographic region is under intense pressure from mining activities. Current data from the department of Chocó indicate that 16 of 30 municipalities have mining activities, many of which are illegal. Only three of 117 mining camps reported by CODECHOCÓ[44] (gold or platinum) have environmental operating licenses. Only 11 of 153 mining rights granted appear in the National Mining Registry. All four National Parks considered in this project are affected by mining activities or mining interests, within and without their limits (within a 5-km radius). In addition, mining activities are performed without the required technical specifications and no environmental or social responsibility schemes. This causes degradation of soil, contamination of water, loss of BD, and uprooting of communities settled within the territory.

54. According to CODECHOCÓ, in June 2012 there were 117 mining camps in eight municipalities in the Chocó using 202 backhoes and 29 dredgers. There have been reports of mining activities in the municipalities of Canton de San Pablo, Quibdó (Neguá River), Istmina, Nóvita, Acandí, Nuquí, Carmen del Darién, middle Atrato (Bebará, Bebaramá), Sipí, Iró River, and others. Recent surveillance and control activities conducted by CODECHOCÓ have resulted in dredgers working on the Quito River to move to Canton de San Pablo, increasing significantly the mining pressure exerted on that location.

55. The Atrato and San Juan River basins have been the site of mining activities since 2007, the latter suffering greater pressure. However, the last three years have seen mining activity in the Atrato river basin increase

[43] IDEAM. http://www.cambioclimatico.gov.co/jsp/1276
[44] Corporación Autónoma Regional del Chocó. Codechocó. 2012. Plan de Acción Institucional 2012-2015. Quibdó.

considerably. An increased number of mining camps have been observed during the last few years, particularly in the municipalities of Cantón de San Pablo and Lloró.

56. Pressures generated by mining on BD are different depending on the stage of the operation:

57. **Feasibility and Mining Exploration**: Although direct impacts are usually temporary, they include displacement of wildlife and degradation of habitats at that particular location. During this phase some indirect impacts may affect BD as a result of road construction to facilitate access to remote areas for forestry activities and agricultural expansion. In general, the feasibility analysis for mining mineral deposits consists of analyzing satellite images, performing aerial geophysical studies, preparing geological maps, and any other remote activities with no impact on the environment. However, location assessment and exploration implies perforation and sampling activities, which may require constructing roads to facilitate vehicle access.

58. **Mine Development and Mineral Extraction:** Direct impacts of these activities on BD include contamination of water resources, habitat loss, and degradation of the soil occupied by the mine. The magnitude of the disturbance depends on the type of mine and the scale of the operation. This phase follows the technical and economic feasibility assessment, when construction and extraction activities begin. Construction and extraction imply elimination of vegetation cover and substrate. The activities include perforation, blasting, excavation, and construction of roadways, railways, and/or other transportation systems. The disposal of rock residues may cause great impact; if improperly managed, these residues may contaminate superficial and underground water bodies. Residues may contain considerable amounts of metals that are found in association with the mineral of interest, along with compounds added during the extraction process. Indirect impacts of mining on BD may be potentially worse, resulting from a joint effect from multiple mining activities on the same location. Mining can be a driving force for economic activity, job creation, and demand of food, timber, and natural resources in remote areas. These may lead to greater wealth for the people of these regions and the expansion of agricultural activities, deforestation, and other activities to meet the demand for construction materials which ultimately lead to habitat destruction, or exploitation, and increased contamination.

59. In the case of the Chocó region, CODECHOCÓ has quantified the impacts of mining in the region's natural ecosystems. Deforestation and soil destruction generated by each mining venture (or camp) averages 4 ha/yr. Each mining camp contributes approximately 3,100 tons/yr of sediments into waterways. Pollution of water sources and soils is calculated around 339 gal/yr of oil per camp; mercury contamination of water sources, air, and soil is close to 36 kg/yr per camp. In addition, well tapping associated with mining activities facilitates the development of vectors of endemic diseases, as well as the migration and destruction of endangered animal species.

60. Regional environmental authorities, such as CODECHOCÓ and the Pacific Institute of Environmental Research (IIAP) have studied mining activities and identified that mining impacts have a set of direct causes[45]. First, lack of knowledge regarding the obtention of mining exploration permits, including the improper evaluation of the reservoir and exploitation planning and a lack of studies to identify highly vulnerable areas that cannot withstand interventions in the natural environment and will lead to the extinction of species. The second cause is the lack of knowledge of proper exploitation and processing techniques, which applied to alluvial mining activities, allow for sustainability of mining operations. Third, there is a limited of capacity by environmental authorities to enforce current legislation, causing deterioration associated with mining. It is also noted that there is

[45] Identificación de impactos socioambientales y cuantificación de áreas degradadas. Project: Evaluación de alternativas ambientales y socio-culturales en areas degradadas por minería mecanizada y formulación de estrategias de restauración. IIAP, November 2012.

lack of support for municipal authorities to enforce preventive measures set forth by them and their disposition to control illegal mining, in accordance with article 306 of the Mining Code (Law 685/01). For these authorities, the illegal nature of the activity makes implementing management plans that include prevention, mitigation, and compensation of environmental degradation nearly impossible. Finally, the authorities also identify the lack of knowledge among local communities about the importance of environmental conservation, as well as the communities' role in plans for improving their quality of life, as a cause of environmental impacts related to mining.

61. Environmental degradation as a result of mining has a series of underlying causes that are beyond the scope of environmental or territorial authorities' power. Extreme poverty in the area, the lack of opportunity to generate income in other productive activities, added to the difficult environmental conditions of the region and its isolation from market centers, the high international prices of precious metals that are abundant in the area, the growing illegal market for these metals, and the dynamics all of illegal economies associated with armed conflict make artisanal or semi-technical mining a viable way of life and source of income for local inhabitants, as well as a driver for immigration to this area.

62. Climate change is another threat to BD affected by mining activities. Increased concentrations of greenhouse gases (GHG) in the atmosphere due to mining activities may lead to deterioration in the animal and plant populations as well as local extinctions, wetland desiccation, and flooding of coastal habitats. **Table 8** summarizes the main threats to BD in the areas of interest, their causes, as well as their impact on the region's biodiversity.

Table 8. Summary of the Main Threats to Biodiversity

Threat	Direct and Indirect Impact	Underlying causes	Locality
Unplanned and non-technical mining	Fragmentation and disappearance of forested habitats	Absence of environmentally friendly productive alternatives; institutional inability to regulate mining activities; absence of adequate environmental land management; absence of adequate policies for the promotion of mining development in the region; increase colonization by immigrants attracted by unregulated activity; high market prices; the existence of an illegal mineral trade.	Atrato and San Juan river basins Acandí, Unguia, Riosucio, Carmen del Darién, Carmen de Atrato and San José del Palmar Cantón de San Pablo, Quibdó (Neguá river), Istmina, Nóvita, Nuquí, middle Atrato, Sipí, Iró river Atrato and San Juan rivers wetlands
	Transformation of aquatic habitats (sedimentation, pollution, and transformation of water courses)		
	Soil deterioration and increased erosion		
	Deterioration of terrestrial animal and plant populations; local extinctions	Increased demand for animal protein, firewood, and construction timber due to increase pollution in mining areas	Riosucio, Quibdó, Carmen del Darién, Quito river, Istmina, Lloró, Bagadó, Acandí, Sucio river, Istmina León Suriquí river wetlands; Paramillo and Orquídeas NPs buffering zones; forest reserves; Carauta, Abriaquí - Urrao, Insor and forest reserve Law 2/1959; Abibe mountain range, Carepa, Apartadó, Chigorodó, Mutatá and Turbo; Urrao and Zacatín tributaries; Urrao municipality
	Degradation of ecological attributes (composition,	Mining titles are granted inside and in areas adjacent to PAs (except national parks, regional parks, and forest reserves)	Farallones, Munchique, Tatama and Orquídeas National Parks, among others

Threat	Direct and Indirect Impact	Underlying causes	Locality
	structure, and function) to BD in the PAs in the region	affecting sensitive areas and buffer function	
Climate change	Deterioration of terrestrial animal and plant populations; local extinctions	Increased concentration of GHG in the atmosphere due to unsustainable development practices	Entire region
	Wetland desiccation		Atrato basin wetlands
	Coastal habitats flooding		All coastal municipalities
Illegal timber extraction	Deterioration of plant populations; local extinctions	Absence of environmentally friendly productive alternatives; institutional inability to regulate mining activities; absence of adequate environmental land management; absence of adequate policies mining development in the region; increase colonization by immigrants attracted by unregulated economic activity	Riosucio, Quibdó, Carmen del Darién, Quito river, Istmina, Lloró, Bagadó, Acandí, Sucio river, Istmina León Suriquí river wetlands; Paramillo and Orquídeas NPs buffering zones; forest reserves; Carauta, Abriaquí - Urrao, Insor and forest reserve Law 2/1959; Abibe mountain range, Carepa, Apartadó, Chigorodó, Mutatá and Turbo; Urrao and Zacatín tributaries; Urrao municipality
Intensive subsistence fishing and hunting	Deterioration of animal populations; local extinctions	Increased demand for animal protein	Wetlands and tributaries of the Atrato and San Juan rivers
Wildlife trafficking for fur and pets	Deterioration of animal populations; local extinctions	Absence of environmentally friendly productive alternatives; institutional inability to control illegal activities	Entire region
Disorganized agricultural and livestock development	Habitat fragmentation	Absence of environmentally friendly productive alternatives; institutional inability to regulate mining activities; absence of adequate environmental land management; absence of adequate policies for the promotion of mining development in the region; increase colonization by immigrants attracted by unregulated economic activity	Acandí, Unguia, Riosucio, Carmen del Darién, Carmen de Atrato and San José del Palmar Atrato and San Juan river basins

63. A multi-sector and regional intervention is necessary in order to the decrease and revert environmental degradation in the northern Choco region (department of Antioquia and department of Chocó), taking into consideration the threats to BD summarized in **Table 8**. This project proposes a series of actions to reduce these threats in the prioritized areas.

1.3. Long-term solutions

64. Solutions suggested by the project for threats identified in the Chocó biogeographic region are shown in **Table 9**.

Table 9. Proposed Solutions for Identified Threats

Threats	Solutions
Unplanned, non-	Technical and administrative information readily available for regional and national authorities

Threats	Solutions
technical mining	through the articulation of environmental information systems for decision-making and proper coordination of activity
	Strengthening the sector's regulation by implementing activities to prevent, mitigate, compensate, and restore the impact caused by mining activities on the biodiversity of the Chocó biogeographic region
	Improve standing of land zoning plans of traditional communities, in order to reinforce control of local authorities, and recognize these land zoning plans in priority conservation areas in 2 million ha
	Empower environmental authorities for monitoring and control, via training in planning instruments and monitoring and control mechanisms
	Restore 100 ha of degraded land, using the restoration protocol developed for open pit mines, included in the National Restoration Strategy
	Increase the area formally protected within PAs in the Chocó biogeographic region
	Increase the effectiveness of conservation measures in already established PAs of the region
	Strengthen territorial planning instruments (Land Use Zoning Plans [POTs] / Land Use Zoning Scheme [EOTs]) that recognize and incorporate strategic areas for BD conservation
	Incorporate environmental criteria in the legal framework for mining, acknowledging the special characteristics of the Chocó biogeographic region within these frameworks
Climate change	Support REDD+ projects in collective territories in an area of 70,000 ha, for the generation of economic incentives through marketing of CO_2 reductions in voluntary markets, decreasing pressure on existing forests
	Increase the area formally protected within PAs in the Chocó biogeographic region
	Increase the effectiveness of conservation measures in already established PAs of the region
Illegal timber extraction, fishing, and intensive subsistence hunting; wildlife trafficking for fur and pets	Empower environmental authorities for monitoring and control, via training in planning instruments and monitoring and control mechanisms
	Make technical and administrative information readily available for regional and national authorities through the articulation of environmental information systems for decision-making and proper coordination of the activity
	Improve standing of land zoning plans of traditional communities in order to reinforce control of local authorities, and recognize these land zoning plans in priority conservation areas in 2 million ha
	Increase the management effectiveness of already established PAs of the region; manage threats to conservation in the buffer zones of PAs
	Increase the area formally protected within PAs in the Chocó biogeographic region
	Support sustainable ventures (environmental, social, economic) involving non-timber forest products (NTFP) as a strategy for conservation and BD use

1.4. Barrier Analysis

Direct Impacts

65. Legal, policy, planning, and institutional instruments for regulating the mining industry are inadequate and ineffective in terms of averting direct mining threats to BD. Colombia‘s current legal, policy, planning, and institutional instruments for regulating the mining industry, although they are being strengthened to address general environmental concerns and human health aspects, are deficient in dealing with BD management needs specifically. The Mining Code is the main legal instrument in the sector but it does not reflect technological advances in the industry which therefore are not enforceable in mining operations, directly affecting BD. On the other hand, it does not differentiate between sanctions and penalties that environmental authorities may impose in case of infraction or BD impact.

66. Furthermore, mining public policy and its legal instruments do not differentiate between the types of mining in the country, which leads to formulating standards and demands for large-scale mining while ignoring other forms of mining such as panning and subsistence, professional, and traditional mining activities. Such a lack of

knowledge does not facilitate the creation of management measures and environmental management guidelines according to different types of mining activities, which results in a widespread inability by small-scale miners to observe the regulations, and avoiding such responsibilities as they do not have the technical or financial capacity required.

65. In addition, the need for a Strategic Environmental Assessment (EAE) for the mining sector in Colombia is constricted by institutional and political barriers, given the implications it may have on the industry. Discussing environmental and mining issues has become a contentious topic, generating conflict between interested parties, which make any joint action between environmental and mining authorities difficult. Moreover, the transitional process currently experienced by the administrative team of mining resources in the country, which is characterized by litigation and the creation of new agencies, has made the strengthening of scenarios through articulation between institutions and sectors essential with regard to environmental responsibilities and obligations. This is due to EAE processes in different sectors that have been supported and led by environmental authorities without the level of participation expected from mining authorities.

66. The environmental impact hierarchy (avoid, reduce, mitigate, and offset), is deficient as specifically related to BD. This is because "no go" areas have not been defined based on spatial priorities and an assessment of tradeoffs and specific management needs for BD to be addressed, and the steps for mitigation have not been assessed, articulated in guidelines, or incorporated into licensing requirements. The country has guidelines for the compensation of BD loss; however, they are only applicable to large-scale mining operations.

67. There is a lack of articulation between the existing information systems of the environmental and mining authorities with regard to the status of licenses, production volume, current production status of mines, and the effectiveness of prevention, mitigation, and offset measures from a BD management perspective. There is a low level of access to information in addition to a limited number of computer-based systems for alphanumeric and geographic data processing. This problem is aggravated by the fact that the MADS, MME, CARs, and the municipalities are either understaffed or poorly trained to monitor environmental licenses and enforce compliance with mitigation and prevention measures. This problem is particularly evident at the regional level in the Chocó.

Indirect Impacts

68. Weak capacity of governmental institutions and territorial and community stakeholders to manage indirect impacts derived from future mining development in the Chocó Region**.** Effective management of the indirect impacts from mining (see threats) is hindered by the limited capacity of the CARs, the UASPNN, municipalities, and indigenous and afrodescendant reserves and councils to plan and execute effective measures that address the cumulative impacts of multiple economic sectors at the landscape level. Across different institutions in the region, the limitations include: (i) territorial land use plans that fail to consider indirect impacts of mining on the forestry, agriculture, and fisheries sectors; (ii) the significant lack of information management systems that would allow the efficient integration of new information regarding indirect impacts into decision-making processes (e.g., the placement of roads and other infrastructure including settlements); (iii) sub-optimal coverage of the PA system in terms of safeguarding areas of highest BD significance that are likely to be impacted by indirect pressures; (iv) weak capacity for co-management efforts in indigenous and afrodescendant reserves where cooperation between the government and communities will be critical to address threats from hunting and unsustainable use of wild resources that will likely increase as a result of increased market demand for bush meat and other natural resources; and (v) a limited capacity to field-test conservation schemes and agreements (i.e., voluntary payments for REDD+) to improve the cost-benefit calculus for conservation.

69. There is also a lack of knowledge among staff within the CARs, municipalities, and some landowners about BD-friendly production systems and techniques, the application of legal tools and incentives for adopting sustainable production practices, and maintaining or increasing household income in target communities.

1.5. Stakeholder analysis

70. The effective implementation of this project and the achievement of its objectives rely to a great extent on the active participation of multiple stakeholders at the local, regional, and national levels. At the national level, MADS and MME are key stakeholders in the development of national policies. Key stakeholders at the regional level include CODECHOCÓ, CORPOURABA, the UASPNN, and the IIAP, which will be active in the implementation of activities for land use planning, BD conservation, and sustainability management. The WWF will at acts as project executor. **Table 10** describes all stakeholders involved in the project.

Table 10 Summary of Key Stakeholders

Stakeholders	Description of Stakeholders' Roles in Project Implementation
MADS (Ministry of Environment and Sustainable Development)	MADS is the GEF focal point and the public agency responsible for the formulation of national policy related to the environment and renewable natural resources and the establishment of guidelines for land use planning to ensure the sustainable use and management of renewable natural resources and the environment. It is also in charge of legal reforms and environmental decrees at the National Congress of Colombia. It will be responsible for the adoption of proposed methodological guidelines.
MME (Ministry of Mines and Energy)	MME is responsible for formulating and implementing the national policy for the exploration, exploitation, transport, refining, processing, benefit, transformation, and distribution of minerals and hydrocarbons, as well as the policy on generation, transmission, interconnection, distribution, and establishment of technical regulations regarding electric power, the rational use of energy and the development of alternative sources. MME generally oversees all the technical, economic, legal, industrial, and commercial activities related to the integrated use of non-renewable natural resources and energy resources in line with the national development plans. This Ministry will lead reforms in the Mining Code and will prepare best practices guidelines for restoration of areas degraded by mining.
UNDP	The United Nations Development Programme Colombia is the project's implementing agency; UNDP works on topics for overcoming poverty and promoting sustainable development in the country. UNDP-Colombia provides orientation, technical support, management tools, and theoretical as well as practical knowledge to national and regional institutions with the purpose of supporting the implementation of public policies, initiatives, and projects for poverty reduction.
UASPNN (Special Administrative Unit of National Natural Parks)	The UASPNN is responsible for the management and administration of the National Parks System and the coordination of the National System of Protected Areas (SINAP). The UASPNN is part of the organizational structure of the MADS but has administrative and financial autonomy. Its mission is to administer the National Parks System and coordinate the National System of Protected Areas within the framework of the national environmental plan with the aim of conserving biodiversity in situ and ecosystem representation in the PA system, providing and maintaining assets and environmental services, cultural heritage and the natural habitat where traditional cultures are developed and contribute to sustainable human development, under the principles of transparency, solidarity, equity, participation and respect for cultural diversity. In accordance with Decree 2372/2010, it coordinates the consolidation of information from protected areas through the Unified Registry of Protected Areas, where environmental authorities should send information on protection measurements declared in their territories, accompanied by cartographic information, metadata, management plan, legal documentation stating the conservation status of PAs, management category, localization and area, conservation objectives, and planned uses, among others. It will be the entity in charge of implementing actions within the prioritized national-level PAs, and a key player in the development becoming that key actor in LMS construction processes in municipalities surrounding those protected areas.
Mining and Energy Planning Unit of the MME	Its purpose is to plan in a comprehensive, clear, permanent, and coordinated manner with public and private entities in the mining and energy sectors, the development and use of energy and mining resources to prepare, release, and disseminate required information on

Stakeholders	Description of Stakeholders' Roles in Project Implementation
	the sectors. It is play a key role in the incorporation of environmental considerations into mining policies.
ANLA (National Environmental Licensing Authority)	ANLA is in charge of projects, works, or activities subject to requirements of environmental licensing, permit, or procedures aimed to ensure compliance with environmental regulations, such a way they contribute to the country's sustainable development. ANLA will support the management with the CARs and will be part of the group of entities targeted for the capacity-strengthening actions to improve enforcement and project implementation. In addition, it will support the articulation of environmental management information systems, granting, and monitoring of licenses and mining rights, providing additional support to decision-making processes.
ANM (National Mining Agency)	ANM is a relatively new technical entity that intends to drive the sector with transparency, efficiency, as well as environmental, social, and productive responsibility. It aims to achieve efficient and effective administration of mineral resources that are property of the State to promote the sector's productivity and competitiveness to maximize its contribution to the country's sustainable development. Its leadership in articulating mining and environmental information systems will be essential during decision-making, as well as in the participation of monitoring and control processes at the regional level jointly with environmental authorities.
CARs (CORPOURABA, CODECHOCÓ, and CVC)	The CARs are the highest environmental authorities within their jurisdiction, in charge of administrating renewable natural resources and strengthening processes and spaces for participation, communication, formation, and community training regarding environmental management at the local and regional levels. They are also the entities in charge of granting permits and environmental licenses to mining rights holders in the region, according to Decree 2820/2010 on environmental licensing. The CARs will support the articulation of environmental management information systems, monitoring, and control of environmental licenses and mining rights, the formulation of land management plan, including conservation areas, and also land use planning the limitation for the assessment of indirect impact of mining activities in the areas they manage. Likewise, they will actively participate in training and capacitation events, as defined in the project.
Governor's Office of Antioquia	This entity is the highest mining authority in the department of Antioquia, as delegated by the MME, and is in charge of the administration of mineral resources that are property of the government within the department. Its participation in the project will be essential for coordinate actions to reduce the direct and indirect impacts of mining on BD and ecosystem services.
IIAP (Institute for Pacific Environmental Research)	This entity develops scientific and technological research aiming to contribute to the population well-being and development, to preserve the quality of the environment, and to use natural resources sustainably. It is in charge of coordinating the SIAT-PC (Territorial and Environmental Information system of the Colombian Pacific) which promotes articulation between stakeholders working for the same objectives to improve environmental information management in the region. IIAP will support actions at the regional and local levels for land use and sustainable use management. It will be an executing partner of the project, particularly in Component 2 for the conservation of BD in areas that are highly vulnerable to mining.
NGOs	Local NGOs will promote conservation and sustainable BD use. Most of their activities are consistent with the project's objectives. In the prioritized project area, the Espavé Foundation (*Fundación Espavé*) stands out as a facilitator for sustainable management and use of natural resources, economic development, and forest ecosystem assessments through the development of value chains with products derived from BD under equitable distribution practices. The Espavé Foundation has been traditionally linked to social movements of black and indigenous communities of the Colombian Pacific region. It also provides technical support to communities that are developing initiatives for alternative uses of the forest and its associated resources. AMICHOCÓ works for the protection of the environment and to improve the quality of

Stakeholders	Description of Stakeholders' Roles in Project Implementation
	life of the inhabitants of the Chocó biogeographic region, articulating local development initiatives with the protection and conservation of the environment.
Municipal government offices Offices (Vigía del Fuerte, Frontino, Murindó, Bojayá, Carmén del Darién, Riosucio, Tadó, San José del Palmar, and Buenaventura)	The municipal government offices are local entities responsible for improving the quality of life for the population of their municipalities, by providing access to essential public utilities and promoting agricultural, livestock, and commercial development. Each municipal government offices play a pivotal role in the management of land use through the preparation of POTs and EOTs.
OIA (Indigenous Organization of Antioquia)	The OIA is a non-profit entity charged with representing indigenous communities and the department of Antioquia in order to ensure a dignified way of life, the well-being of the community, and the population's cultural survival. It is financed through the management of projects with international cooperation agencies and public institutions at the national, departmental, and local levels, enabling it to implement its policies in the indigenous communities of Antioquia.
ASOCASAN (Municipal Community Council of the upper San Juan River basin)	ASOCASAN manages the collective titles held by afro descendant communities in the municipality of Tadó where the project will be implemented. These communities have established internal regulations, land use zoning, biocultural guidelines, and are currently preparing an ethnic development plan. The local communities will be the direct beneficiaries of the project with regard to increased local capacity of governmental systems, planning activities, participation tools, REDD+, and others.
COCOMACIA (Municipal Community Council of the Integral Association of Farmers of the Atrato River basin)	COCOMACIA is orchestrating cooperation and technical support from different institutes to strengthen productive, organizational, and social aspects of BD and forest use and conservation in the region of the Atrato River basin. The organization will rely on project execution experiences, successes and lessons learned obtained from many years of external support. This organization has carried out projects for the sustainable use of forest seeds, aromatic plants, native plants, *jagua* fruit, and is currently expanding to include assai palm hearts and fruits.
(WWF) World Wide Fund for Nature	WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. This organization has experience with conservancy tools and acting as leader when working with multiple sectors as it currently does in the legal timber agreement for sustainable products. WWF has worked in the Chocó Ecoregion since 1980 in partnership with a large number of stakeholders. WWF will be the executing entity of the project, in coordination with national, regional, and local agencies; it would also lead Component 1 of the project with regard to the legal, political, environmental, and mining planning frameworks.
USAID (United States Agency for International Development)	USAID supports the efforts of the Colombian government, the private sector, and citizens to improve the living conditions of the vulnerable groups. It also provides options for social and economic development. USAID will support the development of the project through the BIOREDD program, aimed towards BD and ecosystem conservation as well as socially equitable and economically viable activities. USAID currently carries out REDD+ within the area of influence of the project.

1.6. Baseline analysis

71. Under the baseline scenario, BD conservation in the mining environment of the Chocó biogeographic region will have limited chances for success. The baseline analysis is divided into three areas of investment: environment, legal-institutional, and socioeconomic aspects.

72. ***Environment***: The analyses performed during the design phase established that the project's prioritized area (the municipalities in the north and northwest portions of the departments of Chocó and Antioquia, respectively, and the Las Orquídeas, Tatamá, Farallones de Cali, and Munchique National Parks) will be targeted for investment in conservation of PAs, tropical forest restoration, and REDD+ projects and related activities.

73. The management effectiveness of each of the four National Parks prioritized by the project was assessed using Management Effectiveness Tracking Tool (METT) (Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5). The assessment covered questions and scores stipulated in Objective 1, sections I, II, and III. In order to complete the management status assessment, all scores were entered with the feedback of PA staff in each area and with support from two officials of the northwestern and Pacific territorial divisions of the UASPNN. Financial information was provided by each of the PA directors and the officials in charge of estimating the financial gap at the UASPNN headquarters in Bogotá. The results showed that most national PAs assessed are operating below basic management standards and that they lack the required budget for basic management activities. This is evident in the low scores in all areas regarding institutional capacity, investment in research, and BD management. Out of 99 possible points (total METT score); the management effectiveness assessments yielded the following scores: Las Orquídeas NP – 67, Tatamá NP – 43, Farallones de Cali NP – 53, and Munchique NP – 70. Currently, the management plans for the four PAs are being updated and are projected to be completed by the end of 2013. The Financial Sustainability Scorecard (FSS - Tracking Tool) for these PAs indicated a total score of 31%, suggesting deficiencies in all components assessed: a) legal, regulatory, and institutional frameworks (41%); b) business planning and tools for cost-effective management (22%); and c) tools for revenue generation (27%).

74. The national government will continue to provide an average of USD $233,695 budget for the management and administration each of these areas, or a total budget for these four areas of USD $1,039,780 in 2013. It is expected that this investment will increase yearly by no more than the inflation factor. It is not clear whether the Conservation Mosaics project, which is operated by the Natural Heritage Fund and financed by the GEF, will continue contributing to the management of Las Orquídeas NP and Farallones de Cali NP. The UASPNN has no plans to establish new PAs in the area of interest of the project.

75. The IIAP and the UASPNN are implementing activities for the restoration and tropical rain forests in the departments of Antioquia and Chocó. The IIAP is currently trying to establish three pilot restoration plots; despite technical progress of the project, severe budget limitations they face in 2013 may impede the fulfillment of activities planned for these pilot projects. There is a similar situation with regard to participatory restoration strategies in Las Orquídeas NP and Farallones de Cali NP; budget limitations in these areas severely affect the continuity of these initiatives. CODECHOCÓ and CORPOURABÁ have included restoration projects for degraded areas (1,800 ha and 600 ha, respectively) in their 2013-2015 action plans. Nonetheless, specific investment amounts or locations for these initiatives have not been specified.

76. Funding from the U.S. government through USAID has made it possible to plan and design 14 REDD+ projects for the Chocó biogeographic region. Out of these, five are located in northern Chocó and Antioquia, where they are being designed and had two possible investors during 2013.

77. ***Legal/Institutional***: There is a clear institutional weakness among agencies present in the Chocó biogeographic region due to lack of financial resources for effective monitoring, surveillance, and control of renewable and non-renewable natural resources, which has sped up degradation processes affecting associated BD and ecosystem services. This lack of clear public policies that guide decisions in strategic areas and the absence of environmental considerations in planning instruments have made this a vulnerable area.

78. At the regional scale, CODECHOCÓ and CORPOURABA will invest USD $1,000,000 in institutional development, which will benefit the Chocó region. The IIAP plans to invest USD $200,000 in the development of a methodological tool to prioritize strategic ecosystems based on biological, social, economic, and vulnerability criteria. This activity will be performed in the wetland complex located in the middle Atrato River basin of the department of Chocó. Likewise, an ongoing investment of USD $200,000 is directed toward improving the National Registry of information for development activities contemplated for the project.

80. The MADS will invest USD $221,000 to update the legal framework for National Forest Reserves with the component focused on facilitating the development of the regulatory process. In addition, it plans to invest USD $81,000 for the provision of technical support for the CARs, giving priority to those regions with high deforestation rates. It also intends to invest USD $81,603 to provide additional enforcement to the laws that regulate zone division and use of forest ecosystems across the country, including the Chocó region, at the same time updating the forest cover map at the national scale to provide sufficient information on the multiple threats ecosystems face today.

81. ***Socio-economic aspects***: As part of the baseline, ACDIVOCA[46], within its Program for Afrodescendent and Indigenous people, will develop projects to improve social and economic conditions of populations in the region through four intervention components, including income generation and institutional and public policy strengthening, among others. ACDIVOCA has contributed a total of USD $1,960,000 to facilitate access to economic opportunities such as sustainable mining, forestry projects, and cacao-related projects.

82. The MADS is developing, as part of its action plan, a program for the design and strengthening of economic tools and instruments for environmental management and the promotion of "green" businesses, including an investment of USD $588,000 for the creation of Regional Biotrade Plans, with the Chocó as a priority region.

83. At the regional scale, CODECHOCÓ has included the Biodiversity and Strategic Ecosystems Management program in its 2012-2015 action plan, along with its Biotrade and Sustainable Production project in the Chocó. Among the objectives of these initiatives are the promotion of four (4) products for green markets and biotrade strategy; supporting and strengthening four (4) productive chains and four (4) small enterprises or base organizations affiliated to sustainable biotrade initiatives; and the promotion of agricultural, forestry, and biotrade products. This program comprises 20% of the CODECHOCÓ's Action Plan, with the amount of USD $855,000 allocated for this purpose.

84. Similarly, CORPOURABA has included in its 2012-2015 action plan the project entitled "Design and implementation of alternatives for sustainable use of biodiversity in Afrodescendent communities of the Dagua, Naya, Anchicayá, and Buenaventura basins," with an allocation of USD $170,000.

Capacity Analysis of Stakeholders Involved

85. The capacity of project stakeholders was analyzed using the UNDP/GEF Capacity Development Scorecard, which addresses five strategic areas: 1) Capacities for engagement; 2) Capacities to generate, access and use information and knowledge; 3) Capacities for policy and legislation development; 4) Capacities for management and implementation; and 5) Capacities to monitor and evaluate.

86. The Capacity Development Scorecard was applied to 14 project stakeholders that were classified on scales of influence: five act at a national scale: MASD, MME, ANLA, ANM, and WWF; six at a regional scale: Munchique NP, Las Orquídeas NP, Tatamá NP, Farallones de Cali NP, CODECHOCÓ, and IIAP; and three (3) are local: ASOCASÁN, COCOMACIA, and Fundación Espavé. In addition, they were classified according to the type of entity; four belong to the private sector (ASOCASÁN, COCOMACIA, Espavé, and WWF), and the remaining 10 to the public sector (**Table 11**).

Table 11. Stakeholder Capacities.

[46] ACDIVOCA is a non-profit international development organization that has promoted economic growth and active participation of the civil society since 1963, empowering communities and institutions in developing and transitional countries for successful inclusion in a global economy.

Level	Capacities	Engagement	Generate, access and use information and knowledge	Policy and legislation development	Management and implementation	Monitor and evaluate
Local	Espavé	2.00	1.33	0.75	1.00	1.00
	COCOMACIA	1.33	0.83	0.75	1.00	1.33
	ASOCASAN	1.83	1.75	1.38	1.00	1.33
Regional	IIAP	2.00	1.50	1.75	1.33	1.67
	Codechocó	1.67	2.17	1.00	1.33	2.00
	Farallones de Cali NP	2.67	0.83	1.00	0.67	1.67
	Tatamá NP	1.33	0.67	0.75	1.00	1.67
	Las Orquídeas NP	2.00	1.33	1.50	1.33	2.00
	Munchique NP	2.33	0.83	0.75	0.67	1.00
National	ANLA	1.67	1.00	1.25	0.67	0.67
	ANM	1.33	1.67	1.50	0.67	1.33
	MME	2.00	2.00	1.75	2.00	2.00
	MADS	3.00	1.50	0.75	1.00	1.67
	WWF	3.00	3.00	3.00	2.00	3.00

87. Public and private entities were found to have mid-level capacities, compared with an optimal score of 3.00[47]. The highest capacities are found in the involvement area, which is related to the existence of mechanisms for cooperation with groups of interest. The greatest weaknesses were observed in the management and implementation areas, particularly due to a lack of tools of information for environmental monitoring in mining areas.

88. Classified by action area, national entities possess better involvement capacities, also scoring well in creation, management, and use of information, showing weaknesses mainly in management and information. Regional entities have greater involvement, monitoring, and evaluation capacities, with lower scores in management and implementation and control and surveillance. Local organizations showed greater involvement capacities and lower capacity for strategy design, policies, or regulations; this is mostly due to the low execution rates of environmental plans and strategies, limited human resources, and lack of management skills for environmental management. The evaluation tool will be used again at the middle and end stages of the project to assess changes in involved stakeholders' capacities after executing the project's activities. A breakdown of the capacities assessed for the entities involved in the project is provided in Annex 8.6.

2. Strategy

2.1. Project rationale and policy conformity

89. Colombia has significant mineral resources located in remote areas of the country, which are also storehouses of globally significant BD. Many of these areas are still largely pristine, with high levels of ecological integrity; a case in point is the globally important Chocó biogeographic region.

90. In the medium to long term, the mining sector is projected to grow, and unless the sector is effectively managed, this will have an adverse impact on BD. This project is designed as a safeguard to ensure that mining development does not occur at the expense of BD. The project will address the following areas: 1) Establishing

[47] The indicator value is the result of averaged values reported for stakeholders for all six strategic support areas. On the other hand, the value resulting from each area is an average of each topic found in the UNDP Capacity Development Scorecards. Each topic was in turn given a score on a scale from 0 to 3.

incremental safeguards to protect BD by modifying policies and legislation governing the mining sector and developing measures to reduce and mitigate impacts beyond the baseline requirements. This includes building the institutional capacity for a mining offsets program (where mining cannot be avoided or the impacts effectively mitigated) to protect equivalent BD threatened by other anthropogenic pressures, and to strengthen the compliance monitoring and enforcement system; 2) Strengthening the capacities of the government to manage the indirect threats of mining (i.e., increased population in the mining regions, placement of infrastructure, roads, expansion of farms) in BD-rich landscapes in the Chocó biogeographic region. The project is framed within the first two BD focal area objectives (*i.e., BD1-Improve Sustainability of Protected Area Systems and BD-2 Mainstream biodiversity conservation and sustainable use into production landscapes, seascapes and sectors*). Under BD-1, the project will contribute to achieving Outcome 1.1 (*Improved management effectiveness of existing and new protected areas*) by: a) declaring two new multiple-use PAs in particularly vulnerable and important BD refugia and strengthening the management effectiveness of existing PAs as a precautionary measure against existing and future mining development efforts in the Chocó biogeographic region. Under BD-2, the project will contribute to Outcome 2.1 (*Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation*) through the development and operationalisation of participatory regional land use plans to manage the indirect impacts of mining in sensitive areas. The project will also contribute towards the realization of Outcome 2.1 (*Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks*) as it will incorporate measures into the national mining legislation and policy and planning framework to protect BD of global importance from the direct impacts of mining.

91. Project interventions will contribute to the Aichi Nagoya Targets 4 *(By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits,* 5 *(By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced,* 7 *(By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity),* 8 *(By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity),* and 12 *(By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained).*

2.2. Country ownership: country eligibility and country drivenness

92. The project contributes to the fulfillment of the country's commitment to the conservation and sustainable use of globally important BD, as mentioned in the Convention on Biological Diversity (CBD; Law 165/1994), and national objectives established in the National Biodiversity Policy (NBP, 1996) and the National Policy for Integrated Management of Biodiversity and Ecosystem Services (PNGIBSE, 2012), particularly in actions oriented towards establishing new PAs and other conservation areas. In addition, the project contributes to strengthening the National Protected Areas System (SINAP) by reducing pressure on BD generated by productive activities from different economic sectors, and in the inclusion of BD in policies, strategies, and investments of different economic sectors, such as mining. The PNGIBSE in particular focuses on the need to integrate BD conservation objectives into regional planning activities, which predominate in the allocation and management of land use, including the location of infrastructure in ecologically vulnerable areas, in order to advance a solid strategy for the protection and restoration of BD and ecosystem services.

93. Furthermore, the project is coherent with the National Ecosystem Restoration Plan (NERP, 2010), which seeks to address ecosystem degradation through ecological restoration, rehabilitation, and recovery. The NERP seeks to mitigate accumulated negative impacts and their effects on ecosystems and the quality of life of surrounding human populations. The NERP estimates that 16,000,000 ha of natural ecosystems have been degraded, 13% of which are located in the Chocó, Valle del Cauca, Cauca and Nariño departments. The plan has activities projected for 10 years beginning in 2010, including the creation and implementation of restoration protocols for each of the degraded areas, and the integration with the climate change adaptation strategy, including REDD+ mechanisms and others stemming from agreements.

2.3. Design principles and strategic considerations

94. Project Identification Form (PIF) Conformity: The project's design complies with the original PIF. The structure of the project's components is similar to the PIF approved by GEF in April 2012. Nonetheless, during the PPG phase the project's outputs were reviewed and adjusted. The changes made are shown in **Table 12**. Additionally, there was a reduction in co-financing from $40,237,393 USD to $30,642,752 USD, which resulted from a site prioritization analysis conducted during the PPG phase. Since the project area considered in the PIF was too broad (it included most of the Colombian Chocó biogeographic region), it was determined that the project's global environmental benefits would be maximized if the investment was more localized. Accordingly, the project will focus its efforts in municipalities and indigenous reserves/afro-Colombian territories in the middle and upper Atrato River basin and the upper San Juan River basin (northern Chocó biogeographic region), covering up to 2 million hectares. The project sites in the southern Chocó biogeographic region identified in the PIF that were not included means that co-financers initially identified in the PIF, such as the Regional Autonomous Corporation of Nariño (Corponariño), will not participate in the project. Additionally, the project will contribute to the strengthening of the management effectiveness of four national PAs covering 334,671 ha. Because it was determined that addressing the threat of mining activities from within the Los Farallones de Cali NP and Munchique NP was a priority, rather than the corridor between the two, these two PAs were incorporated into the project, thereby increasing the total area of protected ecosystems that will benefit from the project. The selection criteria are detailed in Annex 8.7 of this Project Document and were determined with the participation of the MADS, CARs, UASPNN, and IIAP

95. While a reduction in the amount of co-financing resources is reflected in the prioritization of areas, a commensurate reduction of GEF funds is not recommended because they will be used to pay for the incremental activities to improve the management effectiveness and reduce threats from mining to these PAs through the development of management and control strategies in line with their management plans, training of PA staff, and improved coordination mechanisms between PA staff and regional and municipal authorities to enhance monitoring, control, and surveillance..

Table 12. PIF Changes.

PIF Outputs	Project Document Outputs
Component 1: The policy, legal, and planning framework in the mining sector addresses the direct threats to biodiversity from mining operations.	
The Mining Code, Environmental License and Environmental Impact Assessment Framework include requirements to prevent/mitigate and offset the impact of mining activities on biodiversity (including clearance of sensitive areas, mine tailings disposal and pollution to aquatic ecosystems).	The Mining Code, Environmental License, and Guidelines for defining mining reserves include recommendations and guidelines to prevent, mitigate, and offset the impact of mining activities on biodiversity. During the PPG phase, the regulatory and policy instruments that will be directly influenced by the project were assessed. Instead of the Environmental Impact Assessment Framework, the project will allow mainstreaming BD considerations into the Guidelines for defining mining reserves.
The National Mining Land Use Plan includes a Strategic Environmental Analysis (EAE) of the territory with emphasis on biodiversity considerations and the EAE recommendations become requirements for applicants seeking an Environmental License for mining.	The Mining Development Plan (PDM) or regional land use/environmental plans (Regional Environmental Management Plan [PGAR], POT, or Watershed Management Plan [POMCA]) includes the results of the Strategic Environmental Analysis (EAE) and considerations for the conservation of biodiversity and ecosystem services. During the PPG, national and regional environmental and mining authorities established that the project will allow incorporating EAE results, with an emphasis on BD and ecosystem services considerations, into national (PDM) or regional (e.g., PGAR, POT, or POMCA) mining/environmental planning instruments rather than into the National Mining Land Use Plan.

Rural development law or related decrees, resolutions and planning instruments include environmental/biodiversity criteria and are linked to the mining Environmental Licensing process.	This project output was removed due to the fact that the Rural Development Law is under discussion as part of the Colombian "peace talks" currently underway and there is no guarantee that a draft to include environmental/BD criteria in the Rural Development Law (or other related policy instruments) will be approved by the Congress.
Information system on environmental management conditions, licensing and mining titles strengthens decision-making processes and facilitates compliance and monitoring of impacts on biodiversity.	Existing information systems on environmental management conditions, licensing, and mining titles strengthens decision-making processes and facilitates compliance and monitoring of impacts on biodiversity. Rather than establishing an information system on environmental management conditions, licensing, and mining titles, the project will strengthen existing information systems within the MADS, the CARs, and the MME and will link them to facilitate the exchange of information.
Protocol with technical and economic guidelines to move forward recovery and restoration processes in areas degraded by mining activity, focused on biodiversity and ecosystem processes.	This output was removed since restoration protocols for degraded areas already exist as part of the Ecological Restoration National Plan (2013) approved by the MADS. These protocols will be used in the project's Component 2, during the development of a pilot project for the restoration of 100 ha degraded by mining activities (with co-financing from the IIAP).
Training program institutionalized and 300 people trained by end of the project, targeting the National Environmental Licensing Agency and Regional Autonomous Corporations, municipalities, community councils, and indigenous reserves working in the Chocó.	Training program institutionalized and at least 300 people trained by end of the project, targeting the National Environmental Licensing Agency, the National Mining Agency (ANM), the Mining and Energy Planning Unit (UPME), the Colombian Geological Service (SGC), Regional Autonomous Corporations, the UASPNN (Western Andes and Pacific Units), departmental governments, municipal councils, community councils, and indigenous councils and peasants working in the Chocó biogeographic region. The number of the beneficiary agencies was increased in order to ensure that the proposed project outputs in Component 2 are achieved as well as for the sustainability of the project.
Component 2: Protection of biodiversity in areas highly vulnerable to the indirect effects of mining.	
Enforcement capabilities of regulatory bodies emplaced: compliance monitoring with planning structures set out in the POT; aerial surveys and other surveillance measures to assess compliance; improved policing and prosecution of malfeasance	Enforcement capabilities of regulatory bodies emplaced: compliance monitoring with planning structures set out in the POT/EOT, PM, POMCA; protocols to strengthen coordination and the implementation capacity of regulatory and control agencies' aerial surveys and other surveillance measures to assess compliance; improved policing and prosecution of malfeasance. The scope of this project output was expanded to include other planning instruments in addition to the POT and the development of protocols and standards to be used by the mining authorities to ensure compliance with environmental requirements during mining operations.
Five participatory management plans for protected areas and two land management/ sustainable use plans for Indigenous Reserves/Afro-Colombian territories that are likely to be affected by indirect development activities stimulated by the mining economy. Plans specify management measures to address threats from encroachment, fire and hunting for the bush meat markets.	This project output was divided into two separate outputs as follows: a) Management and control strategies for four national-level PAs (Tatamá NP, Las Orquídeas NP, Farallones de Cali NP, and Munchique NP) contribute to the reduction of indirect threats to BD associated with mining activities. The project will not develop management plans for PAs as these will be developed by the government though the UASPNN as

	part of the baseline. Instead, the project will develop management and control strategies specifically for each of the four national-level PAs prioritized by the project (i.e., Tatamá NP, Las Orquídeas NP, Farallones de Cali NP, and Munchique NP), and which will be fully articulated with the PAs' management plans. b) Two sustainable use plans for Indigenous Reserves/Afro-Colombian territories that are affected by mining activities are incorporated into the management tools of the CARs to facilitate their enforcement by ethnic authorities.
Two voluntary market financed pilot projects for the generation of income in multiple-use protected areas by means of REDD+ provide a utilitarian incentive for the conservation of forest blocks covering 70,000 ha in the new PAs.	Two feasibility analysis for the development of REDD+ projects undertaken with at least two communities of collective territories. During the PPG, local communities expressed their interest in learning more about REDD+ and their associated benefits. Thus, it is still necessary to assess the environmental, social, and financial feasibility of a REDD+ project.
Sustainable use management system for wild resources harvested by communities including bush meat and non-timber forest products to address impacts from commoditization of the resources: establishment of sustainable off take levels, permissible harvest measures; conservation safeguards (including no take areas), monitoring and enforcement system by indigenous and Afro-Colombian communities.	Sustainable use management system for non-timber forest products to address impacts derived from commoditization of the resources as a strategy for conservation and use of biodiversity products and reduced dependence on mining activities. The PPG phase included an economic feasibility analysis of sustainable use management system for wild resources harvested by communities that led to selecting two non-timber forest products (assai palm [*Euterpe oleracea*] and *jagua* [*Genipa americana*]) to be included as part of the project.
Fifteen hundred hectares of restoration pilot projects for degraded areas established on the basis of protocols developed in Component 1 (with co-financing).	One restoration pilot project (100 ha) to test the National Restoration Protocol (with co-financing from the IIAP). Restoration activities will be limited to the implementation of a 100-ha pilot restoration project using the existing MADS' restoration protocol that will be financed through co-financing provided by the IIAP.

96. UNDP's Comparative Advantage: UNDP was selected as GEF Agency by the Government of Colombia and has a comparative advantage in addressing the primary challenge of this project (BD conservation) through a mainstreaming and PA approach. "Mainstreaming" and "Protected Areas" are the two main UNDP's signature programmes in the area of BD. The agency has a significant portfolio of mainstreaming and PA projects that adopt strategies for addressing management, financial, ecosystem, and sectoral issues. The UNDP Country Office in Colombia has made a commitment to support initiatives that benefit the Chocó biogeographic region and its people. The Country Office and the UNDP/GEF Regional Coordination Unit will support the partners in the execution of this project by taking advantage of UNDP's experience at the national, regional and global levels, and its support for an array of capacity development programmes, including governance and decentralization—both critical to this initiative. The comparative advantage of the UNDP for GEF also lies in its global network of Country Offices, its experience in the formulation of integrated development policies, institution strengthening, and the participation of the non-governmental sector and communities, as specified in the document *Comparative Advantage of the GEF Agencies (GEF/C.31/5rev.1)*.

97. At the national, regional, and global levels, the UNDP is supporting a number of initiatives to strengthen national capacities for better management of the extractive industries. The UNDP is being approached by governments, extractive companies, and other development partners and civil society stakeholders who wish to engage and collaborate on these initiatives. As the request for UNDP support in this area has increased, this organization has established a multiple-division technical task team to guide its work on extractive industries and natural resource management and cross – fertilization of lessons and best practices across the organization. The UNDP's growing portfolio of projects includes initiatives in Russia, Nigeria, South Africa, and Uzbekistan to

facilitate the environmentally sound management of extractive industries in order to reduce conflicts among stakeholders and minimize direct/indirect social and environmental impacts. These efforts include GEF-funded projects such as the mainstreaming of BD management priorities into the oil and gas sectors in Nigeria and Uzbekistan. In the Latin American and the Caribbean region, the UNDP is working to protect the Yasuni National Park from oil exploration impacts by signing a historic deal with the government of Ecuador to establish a USD $3.5 billion trust fund. This is equivalent to 50% of the estimated USD $7 billion that tapping the oil resources would generate. The UNDP's projects are also focused on indigenous communities that are affected by extractive industries. In Guyana, the UNDP is raising awareness and educating indigenous communities regarding the new Amerindian Act and new mining legislation targeting small miners.

98. In Colombia, the UNDP has been supporting efforts to reduce the direct and indirect impacts caused by small miners in the Chocó region. In 2009, the UNDP nominated Oro Verde, a small miners association, for the SEED award, which supports small-scale initiatives that integrate social and environmental benefits into their business model. Oro Verde won the 2009 SEED award for carrying out certified responsible mining practices and reversing environmental degradation in the Chocó region. Since 2009, in response to a government request, the UNDP has been facilitating a national long-term strategy to harmonize mining development with national, regional, and local planning processes and an environmentally sound legal and political frameworks for the mining sector. Today the UNDP has a technical and leadership role in the national debate and has hosted workshops on several topics including how to strengthen the institutional framework in order to facilitate low-impact mining and the role of the EIA in the mining sector. The UNDP's leadership role and experience with mining globally, nationwide, and in the Choco region places this organization in a unique situation to facilitate the implementation of this GEF project.

99. Coordination with other related initiatives: The project will coordinate activities and exchange lessons learned with the national GEF projects listed in **UNDP was** selected as GEF Agency by the Government of Colombia and has a comparative advantage in addressing the primary challenge of this project (BD conservation) through a mainstreaming and PA approach. "Mainstreaming" and "Protected Areas" are the two main UNDP's signature programmes in the area of BD. The agency has a significant portfolio of mainstreaming and PA projects that adopt strategies for addressing management, financial, ecosystem, and sectoral issues. The UNDP Country Office in Colombia has made a commitment to support initiatives that benefit the Chocó biogeographic region and its people. The Country Office and the UNDP/GEF Regional Coordination Unit will support the partners in the execution of this project by taking advantage of UNDP's experience at the national, regional and global levels, and its support for an array of capacity development programmes, including governance and decentralization—both critical to this initiative. The comparative advantage of the UNDP for GEF also lies in its global network of Country Offices, its experience in the formulation of integrated development policies, institution strengthening, and the participation of the non-governmental sector and communities, as specified in the document *Comparative Advantage of the GEF Agencies (GEF/C.31/5rev.1)*.

100. At the national, regional, and global levels, the UNDP is supporting a number of initiatives to strengthen national capacities for better management of the extractive industries. The UNDP is being approached by governments, extractive companies, and other development partners and civil society stakeholders who wish to engage and collaborate on these initiatives. As the request for UNDP support in this area has increased, this organization has established a multiple-division technical task team to guide its work on extractive industries and natural resource management and cross – fertilization of lessons and best practices across the organization. The UNDP's growing portfolio of projects includes initiatives in Russia, Nigeria, South Africa, and Uzbekistan to facilitate the environmentally sound management of extractive industries in order to reduce conflicts among stakeholders and minimize direct/indirect social and environmental impacts. These efforts include GEF-funded projects such as the mainstreaming of BD management priorities into the oil and gas sectors in Nigeria and Uzbekistan. In the Latin American and the Caribbean region, the UNDP is working to protect the Yasuni National Park from oil exploration impacts by signing a historic deal with the government of Ecuador to establish a USD $3.5 billion trust fund. This is equivalent to 50% of the estimated USD $7 billion that tapping the oil resources

would generate. The UNDP's projects are also focused on indigenous communities that are affected by extractive industries. In Guyana, the UNDP is raising awareness and educating indigenous communities regarding the new Amerindian Act and new mining legislation targeting small miners.

101. .

Table 13. GEF national projects in Colombia within the Biodiversity Focal Area

GEF_ID	Project Name	Agency	Project Type	Coordination actions	Status
2551	Colombian National Protected Areas Conservation Trust Fund	IBRD	FSP	Strengthening PA management effectiveness in the Chocó biogeographic region	Under Implementation
3590	Mainstreaming Biodiversity in the Coffee Sector in Colombia	UNDP	FSP	Exchange of experiences and lessons learned about the development of sustainable production systems	Under Implementation
4111	Institutional and Policy Strengthening to Increase Biodiversity Conservation on Production Lands (PL)	UNDP	MSP	Exchange of experiences and lessons about the implementation of BD conservation activities and increase in income of local stakeholders	Under Implementation
3826	Designing and Implementing a National Sub-System of Marine Protected Areas (SMPA)	UNDP	FSP	Exchange of experiences and lessons about the strengthening of legal and institutional frameworks	Under Implementation
5160	Development and production of natural dyes in the Chocó Region of Colombia for the food, cosmetics, and personal care industries under the provisions of the Nagoya Protocol	UNDP	MSP	Exchange of experiences and lessons learned about marketing and value chains of NTFP and equitable distribution of benefits	CEO Endorsed

2.4 Project objective, outcomes, and outputs/activities

102. **Objective.** To safeguard BD in the Chocó biogeographic region from the direct impacts of gold, silver, and platinum mining, and indirect impacts of mining (population growth, development of agriculture, forestry, fisheries and other sectors). The project's outcomes and outputs are described below.

Component 1 – The policy, legal, and planning framework in the mining sector addresses the direct threats to biodiversity from mining operations.

103. This component will generate safeguards to protect BD through the strengthening of the political and normative framework of the mining sector. Strategies will also be developed to prevent and mitigate potential environmental impacts caused by mining beyond the existing legal requirements (that is to say, beyond the management of direct impacts, and developing measures focused on synergic and cumulative impacts). Therefore, the GEF investment will finance the required actions to incorporate environmental considerations in legal and planning instruments with the purpose of preventing, mitigating, compensating, and restoring the impact of mining activities on BD and ecosystem services.

Outcome 1.1 – Legal, policy, and planning instruments at the national level incorporate environmental and social criteria to prevent/ mitigate, and offset the direct impact of mining activity on biodiversity over an area of 4 m ha.

Output 1.1.1 – The Mining Code, Environmental License, and Guidelines for defining mining reserves include recommendations and guidelines to prevent, mitigate, and offset the impact of mining activities on biodiversity.

101. During the first three years of the project, key regulatory instruments will be prioritized which will be promoted according to the baseline and the situational context analyzed during the PPG phase. Interinstitutional meetings to discuss regulatory and public policy reform will take place during the last half of the first year and the first half of the second year. When these activities are finalized, guidelines for the development of environmental compensation plans at the regional level will be designed. These guidelines will be adjusted to the particular characteristics of the Chocó biogeographic region and recommendations will be made to the regional environmental authorities in order to strengthen the mining activity management plan and EIA. Agreements will be reached with the authorities in order to implement the recommendations developed. Starting in the second year, socialization, dissemination, and validation workshops will be held with different interested groups in order to facilitate implementation. The participating stakeholders are MADS, ANLA, MME, ANM, UPME, CODECHOCÓ, CORPOURABA, the CVC, the government of Antioquia, and departmental mine regulatory units.

102. At the end of the project, the Mining Code, the Environmental License, and the Guidelines for assigning mining reserve areas will incorporate environmental and social criteria to prevent, mitigate, and offset the impact of mining activities on BD and ecosystem services. Regional instruments will also make use of this tools (i.e., it will be applied to the projects licensed by the CARs).

Output 1.1.2 – The Mining Development Plan (PDM) or regional land use/environmental plans (Regional Environmental Management Plan [PGAR], POT, or Watershed Management Plan [POMCA]) includes the results of the Strategic Environmental Analysis (EAE) and considerations for the conservation of biodiversity and ecosystem services.

103. At the end of the project, a mining planning instrument will incorporate the EAE results and/or the management and conservation of BD and ecosystem services. For this purpose, specific technical inputs for the Chocó biogeographic region will be defined and produced during the first two years. These technical inputs must complement the EAE, for example, with environmental analysis and results. During the last quarter of the second year and during the two following years, working groups will be formed to support regional (CARs, IIAP, and university representatives) and national decision-making (MADS, MME, ANLA, etc.) on how to incorporate the protection of BD and the ecosystem services into the mining planning instruments at the national and regional levels. Specifically, results from the EAE should lead to regulatory recommendations on planning, enforcement, and follow-up of mining-environmental monitoring instruments such as the PDM, PGAR, POT, or POMCA.

Outcome 1.2 – Improvement in capacity of selected national and regional organizations to apply the revised policy and regulatory mining framework. This improvement in capacity is measured with UNDP's Capacity Development Scorecard.

Output 1.2.1 – Existing information systems on environmental management conditions, licensing, and mining titles strengthen decision-making processes and facilitates compliance and monitoring of impacts on biodiversity.

104. The following activities will be completed to achieve this project output. Update the baseline during the first year, as well as design and formalize a model of mining and environmental information in order to define technical guidelines among the participating entities (MADS, ANLA, IDEAM, ANM, CARs, and IIAP). Once these activities have been performed, formal agreements with the national, regional, and local entities shall be

established, especially their articulation with the Colombian Environmental Information System (SIAC), which is a national platform for information sharing and management. These activities shall be made permanent during the 5 years of project execution. In year 2, the development of applications will be identified and prioritized. These applications will support the consolidation of information for decision-making. Information management infrastructure will be strengthened/acquired (personnel, hardware, networks, communication channels, development of applications, etc.). In a collaborative manner, a metadata catalog will be established to provide an inventory of related datasets for decision-making. These will be made available by the project's executing partners. In addition, information will be prepared and mechanisms established to access the available information with the partner entities, according to the agreed-upon guidelines. Last, a geographic viewer will be developed to display the cartography and information supplied (shared) by the partner entities. At the end of the project, this viewer will be made available for users nationwide.

Output 1.2.2 – Training program institutionalized and at least 300 people trained by end of the project, targeting the National Environmental Licensing Agency, the National Mining Agency (ANM), the Mining and Energy Planning Unit (UPME), the Colombian Geological Service (SGC), Regional Autonomous Corporations, the UASPNN (Western Andes and Pacific Units), departmental governments, municipal councils, community councils, and indigenous councils and peasants working in the Chocó biogeographic region.

105. The following activities will be conducted for this output. Objectives, topics, methodology, and scope of the training program will be defined during the first year of the project, as well as the validation of the stakeholders that were defined during the PPG phase. The training program will be designed based on the training needs and the results of the capacities assessment performed during the PPG phase The different training modules (formal and informal) will be designed during the second year of the project in accordance with the type of institution, stakeholder, and topic. During the third year, training activities will be initiated. The monitoring and follow-up efforts for the stakeholders who participated in the training program will be implemented during the fourth and fifth years in order to assess capacity. The impact of training will be assessed through the UNDP's Capacity Development Scorecard, which will be applied twice during the life of the project: mid-point and end of the project.

Component 2 - Protection of biodiversity in areas highly vulnerable to the indirect effects of mining.

106. The objective of this component is to manage indirect mining threats in the Chocó region through a two-pronged approach, which consists of the following: a) strengthening the conservation of BD through improved management of existing PAs and the establishment of two new multiple-use PAs, and b) mainstreaming BD principles through effective territorial planning, enforcement, and actions on the ground in production sectors likely to grow as a result of mining.

Outcome 2.1 – Improvement in capacity of Regional Autonomous Corporations, Municipalities and community level organizations to generate, use and share geographic, socio-economic, and bio-physical information needed for spatial planning and management purposes that take into consideration the indirect impacts of mining. This improvement in capacity is measured with UNDP's Capacity Development Scorecard.

Output 2.1.1 – Five Territorial Land Use Plans (POT) covering an area of 2 million ha delimit areas for development, including infrastructure placement, placement of settlements, farming and forestry, taking into account BD importance.

107. During the first year of the project at least five (5) POTs will be review to assess its content BD considerations and progress in their implementation. Based on this analysis, a proposal for each POT will be

develop for mainstreaming BD principles; this will include identifying and defining the principal ecological structure of each selected municipality[48]. This activity will last four months. During the second half of the second year of the project, the project will lead an exercise in the delineation of buffer areas with the CARs and municipalities for consideration during the development of POTs. The mining information for the project's prioritized areas will be updated in a collaborative manner, if available. If this is not the case, the current mining titles and activities in the area will be defined. Based on the information from the previous activity, the direct and indirect impacts of mining on ecosystem services in the selected municipalities will be identified during the last quarter of the second year. A proposal will be developed for the management of the ecological structure and buffering function, with consideration for the preservation, recovery, and sustainable use key areas, including the direct and indirect impacts of mining that will be incorporated into the POT and EOT proposals. Validation and discussion workshops will be held during the second half of the third year. These workshops will include national, regional, and local stakeholders (i.e., MADS, municipal mayor's offices, and community councils) in order to receive feedback and comments that will facilitate the adjustment of the proposals. By the end of the third year of the project, a management plan for the ecological structure defined in the land use instruments of the selected municipalities will be validated and approved by the municipal councils. At the end of the project, changes to at least five POTs within the project area will be adopted. The municipalities of Vigía del Fuerte, Murindó, Frontino, Bojayá, Carmen del Darién, Riosucio, Tadó, San José del Palmar, and Buenaventura have been prioritized.

Outcome 2.1 – Effective deployment of financial and human resources address cumulative indirect threats of mining (inappropriate infrastructure placement, including roads, farming, forestry, bush meat harvesting, and other development triggered by an increase in disposable incomes from mining activities); effective surveillance and enforcement over an area covering 2 m ha.

Output 2.2.1 – Enforcement capabilities of regulatory bodies emplaced: compliance monitoring with planning structures set out in the POT/EOT, PM, POMCA; protocols to strengthen coordination and the implementation capacity of regulatory and control agencies; aerial surveys and other surveillance measures to assess compliance; improved policing and prosecution of malfeasance

108. The following activities will be conducted for this output. During the first year of the project, the existing mechanisms for interinstitutional coordination to be strengthened will be revised and updated. Based on this analysis, proposals will be develop to further facilitate interinstitutional coordination and cooperation within the framework of different regional and local planning instruments (POT/EOT, PM, POMCA). In addition, at the end of the second year, monitoring and surveillance protocols will be outlined together with environmental and mining authorities for the Chocó biogeographic region. This design must take into account local, regional, and national institutions for the specific case of the mining sector. The purpose of these protocols is to effectively guide the mining authority in the monitoring of environmental compliance requirements. At the end of the third year, the protocols will be implemented in areas that have been previously identified with the purpose of adjusting them for further official approval. The information resulting from the implementation of the protocols, which will include field visits by the project staff and environmental and mining authorities will be systematized and disclosed for follow-up. All related information will be made available through the information systems that will be strengthened in Output 1.2.2.

[48] According to Decree 3600/07, the Principal Ecological Structure is "the set of biotic and abiotic elements that sustain essential ecological processes of in a given territory, whose main purpose is the preservation, conservation, restoration, and sustainable use of renewable natural resources, which provide support to the socio-economic development of the populations" (num1, item 1).

Outcome 2.3 – Six protected areas (two of them are new) protect 404,671 hectares of priority ecosystems in zones that are under high risk of development pressures. Biological indicators of selected species remain stable in at least two of these PAs.

Output 2.3.1 – Gazettal of two (2) new multiple use PAs covering 70,000 ha (legal gazettal and boundary demarcation).

109. Several initiatives by the CARs for the creation of PAs were identified during the PPG phase. As a result, the first activity associated with this is building consensus with regard to the creation of these PAs (location and extension) and the initiation of the consultation process, if applicable. At the start of the second year, the design of the selected areas, other than those that have been prioritized by the CARs, will be initiated. The following issues will be addressed for these areas: a biophysical characterization, a social characterization, a land property characterization, map preparation; and the necessary legal analysis in order to create the support document of the declaration, as well as the criteria used for Category VI of the IUCN (sustainable use of natural resources). A participatory process for developing the management plan will be initiated at the beginning of year 3, which will include a strategic plan, an annual plan, and a business plan. Once these activities have been completed, the CARs will inform local and regional stakeholders about the establishment of the PA

Outcome 2.4 – Management effectiveness of 4 protected areas improves by 10% to 20% according to the Management Effectiveness Scorecard.

Output 2.4.1 – Management and control strategies for four national-level PAs (Tatamá NP, Las Orquídeas NP, Farallones de Cali NP, and Munchique NP) contribute to the reduction of indirect threats to BD associated with mining activities.

110. The project, jointly with staff from the UASPNN management units for the Western Andes and Pacific regions and PA management officials, will revise existing enforcement and management strategies included in the management plans of four PAs (Las Orquídeas NP, Tatamá NP, Farallones de Cali NP, and Munchique NP) for the management of the indirect impacts of mining. This activity will last six 6 months after which, an update of the characterization of threats and the conservation status of biodiversity BD will be performed (taking into account the list of species of the World Database on Protected Areas [WDPD] as a reference point) with particular reference to the indirect impacts of mining, which will be corroborated using remote-sensing imagery and through field visits, within the PA and their buffer areas. Beginning in year 2, BD monitoring activities will be initiated in the PAs jointly with the CARs and BD experts, and will include field measurements to assess water quality, including the identification of mercury and cyanide in water and sediments, etc. Local groups will be training (groups of translators, civil society organizations, community councils, etc.) so that they can support the monitoring and enforcement activities. Beginning in year 2, the control and management of illegal mining in the PAs and their buffer areas will be initiated in coordination with the relevant authorities, and will include the use of support personnel, communication materials, awareness raising events and workshops, implementation of surveillance stations, and actions for the stabilization of slopes, prevention of mudslides, and demolition of illegal camps and infrastructure. Agreements will be signed with the CARs, municipal authorities, and authorities of collective territories in order to perform the necessary actions to prevent and mitigate the mining impacts within the PA and their buffer areas. Additionally, the project will promote the participation of local and regional stakeholders in the development and implementation of the management and control strategies for the PAs. It will also strengthen existing mechanisms for institutional and local community coordination such as the Pacific SIRAP local negotiation roundtables with community councils, the Uramba Agreement, the Tatamá Association of Municipalities, the Mining Committee of Antioquia, the OIA, and the Conformation of the Control Group of Illegal Mining in the Farallones de Cali NP and its buffer area. These activities will be coordinated with related actions to be developed as part of Output 2.2.1.

Output 2.4.2 – Two sustainable use plans for Indigenous Reserves/Afro-Colombian territories that are affected by mining activities are incorporated into the management instruments of the CARs to facilitate their enforcement by ethnic authorities.

111. Consultations with the ASOCASAN and COCOMACIA community councils were held during the PPG phase. These community councils expressed their willingness to participate in the project. A signed agreement with these communities is required in order to comply with this output through their legally recognized authorities. The sustainable use plans for two communities will be updated and documented during the second half of the first year, as well as their internal regulations related to BD use. Starting in year 2, agreements between the community organizations and the CARs will be completed in order to achieve official support of the management plans, as well as the incorporation to the CAR environmental management instruments, and a roadmap will be defined for such purpose. During the second year of the project, a monitoring system of the sustainable use of BD by local communities will be developed and will be articulated with the existing information systems on environmental management of mining activities to be strengthened by the project as part of Output 1.2.1. In addition, a training plan for environmental authorities and community leaders will be initiated for the monitoring and enforcement of management plans, in accordance with the activities outlined in Output 2.4.3; this will include the design and implementation of monitoring and enforcement protocols together with afro-Colombian and indigenous leaders. In the third year of the project, a practical guide for the design of sustainable use plans will be developed. This guide will include collaboration with the CARs and will be replicated in other community areas of the Chocó biogeographic region. In addition, documentation will be completed which includes the guidelines for the use of BD-related products to establish productive systems, as well as the permitting, monitoring, and environmental control by the CARs.

Output 2.4.3 – Strengthened institutional and community capacity for 200 people (know-how and equipment and other needs) for planning, administration, surveillance, and control of protected areas.

112. The following activities are included in this output: beginning in the third year of the project, the stakeholders participating in training will be identified using a basis the information obtained during the PPG. A curriculum will be designed and the methodologies that will be used (for example, graduate certificates, thematic training workshops, etc.) will be defined. Different training modules will be designed according to the type of institution, stakeholder, and topics of interest. The training activities will be implemented during the fourth year and monitoring and follow-up of the stakeholders who participated in the capacity building program will be performed during the fifth year of the project.

Outcome 2.5 – Biodiversity management and connectivity amongst forest fragments is improved through Landscape Management Tools (i.e., natural rehabilitation agroforestry systems, etc.) in 15,000 hectares of fragmented forests important for conservation of biodiversity.

Output 2.5.1 – Two feasibility analysis for the development of REDD+ projects undertaken with at least two communities of collective territories.

113. During the PPG phase, local communities in the middle and lower parts of the Atrato River basin (northern Choco biogeographical region) about the overall GEF project. These communities demonstrated interested in participating in the implementation of a REDD+ activities (see Annex 8.10). However, it is necessary to provide further information regarding REDD+, its use, and the related challenges and opportunities, how the different stakeholders can participate and their rights and responsibilities, as a way to contribute to decision-making in a free, prior, and informed manner. This information process will continue during the implementation phase, and will include a technical, financial, social, and institutional feasibility analysis for REDD+ pilot projects for tropical rain forests in the region.

114. The technical, financial, social, and institutional feasibility of a REDD+ project will start with a consultation process with national, regional, and local stakeholders to determine their interest in participating in REDD+ activities. Further consultations with of afro-Colombian communities and indigernous communities will follow the procedures established by the Ministry of Interior. The technical feasibility analysis will include the final selection of the prioritized areas the middle and lower parts of the Atrato River basin and validation of the global environmental benefits of GHG emissions reduction. The economic feasibility analysis will include establishing the cost of implementing and operating the REDD+ project, as well as the incentives from the potential sale of carbon credits in the voluntary market. The social feasibility analysis will determine the positive and negative impacts of REDD+ project on the afro-Colombian and indigernous communities living in the prioritized areas. Particular attention will be given to: a) detailed analysis of tenure and the land and forests, including the status of collective land titles; b) alternatives and compensation/mitigation mechanisms that may be required as a result of the REDD+ project and which may include restrictions on the use of forests and their associated resources; c) detailed analysis of co-benefits, including improved ecosystem services; and d) equitable distribution of benefits, including consideration of gender and cultural differences. The institutional feasibility analysis will include: a) determining interest and the willingness of national, regional, and local stakeholders to participate; b) existing mechanisms for interagency cooperation and weaknesses; and c) the ability of each institution to implement REDD+ activities and determining their additional training needs.

115. The REDD+ project will be developed as part of the process initiated by the BIOREDD-USAID project, which were identified during the PPG[49] phase and are currently at different levels of design. The project will focus on supporting some of the stages that have not yet been developed and will include the following: a) analysis of relevant historic and current documentation; b) signing of agreements with communities and characterization of forests; c) carbon measurement and estimation of reduction of emissions; d) social analysis of interested parties; e) baseline estimation of deforestation; f) risk analysis, preparation of maps, preparation of monitoring plan, and BD survey; g) contract with the assigned operator; h) site visits, design of mechanisms for the equitable distribution of benefits; and i) design and execution of a marketing strategy. At the end of the project, two communities with collective land titles will be able to lead conservation schemes that are compatible with REDD+ activities. The REDD+ methodology to be used will be chosen among approved methodologies such as the Verified Carbon Standard (VCS) VM0015. The VM0015 methodology (Methodology for Avoided Unplanned Deforestation, v1.1) estimates GHG emissions from areas where unplanned deforestation is taking place and quantifies the emission reductions achieved by curbing deforestation. The methodology provides a comprehensive set of tools for analyzing both frontier and mosaic deforestation patterns to establish the baseline deforestation rate, monitor GHG emission reductions, and assess leakage.[50] Estimations of VCUs considering the VM0015 methodology scenario for aboveground biomass for 70,000 of tropical rainforests (90.94 tC/ha/yr)[51] are presented in Annex 8.11.

Output 2.5.2 – Sustainable use management system for non-timber forest products to address impacts derived from commoditization of the resources as a strategy for conservation and use of biodiversity products and reduced dependence on mining activities.

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[49] Urabá and Darién zones: Collective territories of the Salaquí River, La Larga and Tumaradó Rivers, Las Bocas del Atrato and Leoncito, Cacarica, Pedeguita and Mancilla, Vigía de Curvarado and Santa Rosa de Limón, Chicao, La Madre, Río Montaño, Apartadó-Buenavista, Urabá Darién; and the indigenous reserves of Chigorodó, Mutatá, and Carmen del Darién. Lower Baudó and Southern Chocó: Collective territories of CONCOSTA, Baudó-ACABA, Sivirú, San Andrés de Usaragá, Río Pepe, Cocomacasanp, Pizarro, Río Piliza, Cuevita, Villa María Purrichá, Pavasa, Terrón San Agustín, and Virudó; and the indigenous reserves of Kamawaa, Bellavista, Unión Pitalito, Río Paya, Quebrada Grúa, Río Purrichá, Tuimamatuma, Potochichiliano, Río Bajo Grande, La Jagua Guachal Pitalito, Ordo SivirúAguaclara, Río Orpua, and Santa Rosa de Ijua.

[50] http://www.v-c-s.org/methodologies/VM0015.

[51] Based on www.siac.gov.co. Accessed on December 2013.

116. The project will promote sustainable use management systems for two NTFP as a strategy for conservation and use of BD products and reduced dependence on mining activities. During the second half of the first year of the project, it will be necessary to revise and update the feasibility studies of supply chains and projects that were identified during the PPG phase for two NTFP: a) the assai palm tree or *naidí* (*Euterpe oleracea*): this palm found in the surrounding swamp areas contributing to water regulation; and b) *jagua* (*Genipa americana*): this tree was traditionally used to obtain wood for household needs until the commercial value of its fruit as a dye was known. The sustainable use of these two BD products will contribute to the permanence of forest cover given the value it represents for local communities and for maintaining the integrity of the ecosystem (Annex 8.9**8.9**). In the second half of the first year, the design/update of business plans for the two NTFP/agroforestry systems will be completed, with an emphasis on environmental, social, and economic sustainability.

117. The COCOMACIA and ASOCASAN communities, as well as the Espavé Foundation and Ecoflora, expressed interest in participating in the project during the PPG phase. They have participated in these initiatives and will continue to participate in the activities related to these ventures. Commercial, legal, technical, and business barriers will be identified at the end of the first year of the project in order to achieve social, environmental, and economic goals and so that a strategy can be developed to overcome the barriers. During the second year, the capacity and skills of these organizations will be strengthened and their initiatives promoted though commercial tours. Additionally, administrative procedures and guidelines for the use of NTFP by the environmental or agricultural authorities (CARs or ICA) as well as the legalization, monitoring, and enforcement mechanisms of CARs for the utilization of NTFP will be strengthened. Starting in year 3, a monitoring system will be design to assess the social and environmental impacts of the business initiatives, with an emphasis on BD, as well as compliance with the regulatory framework and the environmental and social objectives of the business initiatives, and which will be articulated with the monitoring systems of environmental authorities that will be strengthened through Output 1.2.2. In addition, the monition system will allow assessing the participation of men and women in the NTFP initiatives as well as the equal distribution of benefits.

Output 2.5.3 – One restoration pilot project (100 ha) to test the National Restoration Protocol (with co-financing from the IIAP).

118. The country has already developed official restoration protocols within the National Restoration Plan that was adopted by MADS. The project will validate these protocols in 100 ha of degraded ecosystems in the Chocó biogeographic region following thes activities: Define and delineate the area(s) to be restored during the first quarter of the project. The areas where the protocols will be implemented will be assessed during the next year, as well as the social-environmental feasibility. The local capacity for implementing the restoration protocols will be evaluated during this time period. In addition, areas well conserved (least impacted) will be identified and will serve as reference sites. The restoration objectives will be defined, as well as the mitigation measures for water contamination (control of discharges, and control and mitigation measures), the management measures for soil restoration; and restoration strategies and treatments. Data resulting from the monitoring of the restoration activities will be made available to environmental agencies (e.g., MADS, CARs, and IIAP) upon completion of the project.

2.5. Indicators, risks, and key assumptions

119. The project indicators are detailed in the results framework, which is included in Section 3 of this Project Document. A summary of the project indicators is shown in **Error! Reference source not found.**. The risks that could affect the performance of the project are presented in **Table 15**.

Table 14. Project Indicators.

	Indicator	**Targets by End of Project**
Project Objective: To safeguard biodiversity in the	Area of four (4) existing protected areas (PAs) under sustainable	– 334,671 ha

<table>
<tr><td rowspan="3">Chocó biogeographic region from the direct impacts of gold, silver and platinum mining and indirect impacts of mining (population growth and development of agriculture, forestry, fisheries and other sectors)</td><td>management protects local ecosystems</td><td></td></tr>
<tr><td>Total area (ha) of forest protected by new multiple use PAs (MUPAs) against the impacts of mining</td><td>– 70,000 ha</td></tr>
<tr><td>Change in the management effectiveness of four (4) PAs according to the management effectiveness scorecard (METT)</td><td>– Las Orquídeas NP: from 67 to 87
– Tatamá NP: from 43 to 63
– Farallones de Cali NP: fro 53 to 73
– Munchique NP:from 70 to 80</td></tr>
<tr><td rowspan="2">Outcome 1. The policy, legal, and planning framework in the mining sector addresses the direct threats to biodiversity from mining operations</td><td>National-level legal, policy, and planning instruments incorporate environmental and social criteria to prevent, mitigate, and offset the direct impact of mining activity on BD and ecosystem services</td><td>– Updated legal, policy, and planning instruments with recommendations and guidelines incorporate environmental and social criteria to prevent, mitigate, and offset the direct impact of mining activity on BD and ecosystem services; a) the Mining Code; b) Environmental License; c) Guidelines for the designation of mining reserve areas</td></tr>
<tr><td>Number of agencies from the mining and environmental sectors articulated in the unifying platform for information systems (UPIS)</td><td>– Environmental sector: 5 (UASPNN, IIAP, ANLA, CODECHOCO, CORPOURABA)
– Mining sector: 1 (ANM)</td></tr>
<tr><td rowspan="2">Outcome 2. Protection of biodiversity in areas highly vulnerable to the indirect effects of mining</td><td>Number of municipal planning instruments (e.g., POTs) that incorporate conservation priority areas and zoning to address the direct and indirect impacts of mining on BD and ecosystem services</td><td>– 5</td></tr>
<tr><td>Change in capacity to generate, use and share geographic, socioeconomic, and biophysical information needed for spatial planning and management purposes that take into consideration the indirect impacts of mining. Capacity is measured by the UNDP Capacity Development Scorecard (200 people trained: CARs, national-level PA managers, and community level organizations):
a. Capacities for engagement
b. Capacities to generate, access, and use information and knowledge
c. Capacities for policy and legislation development
d. Capacities for management and implementation
e. Capacities to monitor and evaluate</td><td>– Local level
<table>
<tr><th></th><th>Espavé</th><th>Asocasan</th><th>Cocomacia</th></tr>
<tr><td>a.</td><td>2.40</td><td>2.20</td><td>1.60</td></tr>
<tr><td>b.</td><td>1.60</td><td>2.10</td><td>1.00</td></tr>
<tr><td>c.</td><td>0.90</td><td>1.65</td><td>0.90</td></tr>
<tr><td>d.</td><td>1.20</td><td>1.20</td><td>1.20</td></tr>
<tr><td>e.</td><td>1.20</td><td>1.60</td><td>1.60</td></tr>
</table>
– Regional level
<table>
<tr><th></th><th>IIAP</th><th>Codechocó</th><th>Munchique NP</th><th>Farallones de Cali NP</th><th>Las Orquideas NP</th><th>Tatamá NP</th></tr>
<tr><td>a.</td><td>2.40</td><td>2.00</td><td>2.80</td><td>3.20</td><td>2.40</td><td>1.60</td></tr>
<tr><td>b.</td><td>1.80</td><td>2.60</td><td>1.00</td><td>1.00</td><td>1.60</td><td>0.80</td></tr>
<tr><td>c.</td><td>2.10</td><td>1.20</td><td>0.90</td><td>1.20</td><td>1.80</td><td>0.90</td></tr>
<tr><td>d.</td><td>1.60</td><td>1.60</td><td>0.80</td><td>0.80</td><td>1.60</td><td>1.20</td></tr>
<tr><td>e.</td><td>2.00</td><td>2.40</td><td>1.20</td><td>2.00</td><td>2.40</td><td>2.00</td></tr>
</table></td></tr>
</table>

		– National level ANLA / ANM / MME / MADS a. 2.00 / 1.60 / 2.40 / 3.00 b. 1.20 / 2.00 / 2.40 / 1.80 c. 1.50 / 1.80 / 2.10 / 0.90 d. 0.80 / 0.80 / 2.40 / 1.20 e. 0.80 / 1.60 / 2.40 / 2.00 Increase by 20% at all levels (3.0 is the highest score possible)
	Area (ha) of degraded mining lands under restoration processes in areas key for biodiversity	– 100 ha
	Number of new multiple-use PAs (MUPAs) created	– 2
	Four (4) PAs with improved monitoring and surveillance in controlling access/resource use as measured by the METT	– Las Orquídeas NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Tatamá NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Farallones de Cali NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Munchique NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use
	Avoided emissions (tCO2-e) due to tropical rainforest deforestation at the end of the project	– 610,649 tCO_2-e
	Avoided deforestation (ha) at the end of the project	– 2,034.80 ha
	Number of initiatives for the sustainable use of BD in the marketing stage	– Two (2) NTFP: assai palm (*Euterpe oleracea*) and "jagua" (*Genipa americana*)
	Change in the annual average income of the local community members (including men and women) derived from the sale of assai palm (*Euterpe oleracea*) and *jagua* (*Genipa americana*)	– Women: X* – Men: X* Target will be estimated during the first 6 months of project execution

Table 15. Risks facing the project and the risk mitigation strategy.

Risk	Rate*	Mitigation actions
The proposed legal and policy reforms are not achieved in a timely manner	M/H	The proposed legal and policy reforms will happen within a political environment that includes the Colombian "peace talks," which are currently underway, and presidential and congressional elections in 2014. These events may include structural policy and legal reforms that slow down the delivery of the related legal and policy outputs despite the current

Risk	Rate*	Mitigation actions
		support from environmental and mining authorities. The project will maintain all interested existing and future authorities informed about the project's objectives and progress, and will incorporate the necessary follow-up activities in the annual plans to ensure that the results of the "peace talks" and the presidential/congressional elections are incorporated into project planning and management.
Government policies and programs will support unrestrained mining development in the biogeographic region of the Chocó as global prices for gold, silver, and platinum rise	M/H	Government support for amending the national mining policy and associated policy instruments is essential for the project's success. The government has expressed its commitment to addressing the impacts of mining on BD, leading to the development of this initiative. To garner the legislative support necessary to review and approve new laws and incorporate environmental considerations into the policy and legislative agenda, should this commitment waver, the project will also draw upon the advocacy skills of the project's partners, NGOs, and public research organizations.
Non-compliance of companies with new policy prescriptions, aimed at safeguarding BD	M	The project will support monitoring compliance of the commitments and conditions of the environmental licenses, and will support the environmental authorities in their monitoring and enforcement processes. The project will promote coordination between environmental and mining authorities in such a way that the approval of mining titles for companies that do not comply with the environmental safeguards is avoided. The project will develop control and follow-up protocols, which will be adopted by both environmental and mining authorities with the purpose of articulating information for decision-making.
Insecurity and violence in the Chocó impede project operation and execution	M	For the selection of areas where the project will be implemented (Viga del Fuerte, Murindó, Frontino, Bojayá, Carmen del Darien, Rio Sucio, Tadó, San Jose del Palmar, and Buenaventura), safety conditions were considered as a criterion and the UNDP security group was consulted. If the selected areas demonstrate unsafe conditions, the project will re-focus their efforts to other areas of Chocó biogeographic region.
Resistance in local communities to the project due to distrust of government and high gold, silver, and platinum prices	L	Communities and other stakeholders will be participating in project design, planning, implementation, and evaluation processes starting with the PPG phase. Communities and other key stakeholders participated in the project design process, and all local stakeholder groups related to the project were properly identified and engaged in the project. Local communities will actively participate in the implementation of the project, both in the capacity-building, as well as in the implementation of a sustainable use management system for NTFP and in the development of land management/ sustainable use plans for Indigenous Reserves/Afro-Colombian territories.
The necessary permits for using NTFP are not granted by the environmental agency in a timely manner.	L	The project will promote capacity-building of local stakeholders for the design and implementation of sustainable productive initiatives, as well as capacity-building of environmental authorities for enforcement and monitoring of said initiatives. The capacity of local communities to comply with standards will also be strengthened.
There is uncertainty due to constant changes in the national, regional, and local governments to adopt the tools designed within the project	M	The project will promote inter-institutional mechanisms for cooperation and information sharing, thus guaranteeing that government agencies are informed about the project (progress

Risk	Rate*	Mitigation actions
framework.		and achievements, and maintaining their commitment with the project during its implementation. Officials will be invited to participate in the implementation and the monitoring and evaluation processes of the project.
The frequent rotation of officials and contractors of the participating entities in the project makes timely implementation of planning and training activities difficult.	M	The participation of the personnel who previously participated in the related formulation and processes will be encouraged. Events designed to familiarize personnel with the project processes will be encouraged for new officials in order for them to appropriate the tools created by the project.
Climate change negatively impacts BD in the Chocó biogeographic region.	M	The project will implement BD conservation actions in important areas of tropical rainforest that remain through traditional in situ conservation schemes in public PAs and non-traditional actions through schemes such as REDD+, as well as sustainable management of the collective territories. The establishment of new PAs will take into account climate change projections so that landscape and boundary designs contribute to mitigating potential impacts on BD, including corridors to facilitate species movement and provide refugia in a changing climate.
Dependency on the training to be delivered by the project for the achievement of the expected outcomes	M	Training will begin early in the implementation phase of the project to ensure that the required skills and knowledge are in place in a timely manner. The project will monitor the use and incorporation of knowledge gained by the different stakeholders using development capacity indicators (UNDP Development Capacity Scorecard). The UNDP's in-country and regional technical staff will provide support to project implementation. Finally, the project will be executed by the WWF, which has extensive experience in project implementation and will make use of its wide network of national and international BD and social experts for additional project support.

*L = low; M = Medium; H = High.

2.6 Financial modality

120. The project will finance activities that are oriented towards public policy and regulatory reforms so that they include provisions that protect BD and ecosystem services from the impacts of mining activities. Furthermore, the project will promote the management capacity of the environmental and mining authorities, research institutes, indigenous communities, Afro-Colombian communities, and other civil society organizations with improved information systems and training. Additionally, the project will promote sustainable livelihoods for local communities, and it will implement a pilot project geared towards the recovery and restoration of areas that have been degraded by mining activities.

121. The financial support of the GEF will consist of a donation to cover the incremental costs of these activities; thus, the GEF resources will be used for technical assistance. The project is executed under the Civil Society Organization (CSO) implementation modality, in accordance with the rules and regulations for the cooperation of the UNDP in Colombia. The cost of additional activities that is required to contribute to the global benefits financed by GEF is US$5,850,000. A summary of the project budget is presented in **Table 16**.

Table 16. Total project budget (GEF Funds)

Outcomes	Budget (USD)	Percentage of the total budget
Outcome 1	1,000,000	17.1%

Outcome 2	4,571,429	78.1%
Management costs	278,571	4.8%
Total	5,850,000	100.0%

2.7 Cost-effectiveness

122. A qualitative approach for identifying the alternative with the best value and technical feasibility for achieving the project objective was used in line with the GEF Council's guidance on assessing the cost-effectiveness of projects (Cost Effectiveness Analysis in GEF Projects, GEF/C.25/11, April 29, 2005).

123. Under the "business as usual" scenario, interventions will be implemented but will not make significant contributions to reducing the direct and indirect threats of mining, specifically the growing trends of gold, silver, and platinum mining exploitation in the Chocó biogeographic region, given that mining has become an important local unsustainable economic activity. Additionally, under the "business as usual" scenario, actions by the mining and environmental authorities that are directed towards controlling illegal mining and the development of alternative sustainable productive activities will continue to lack coordination, and the exchange of information (status of licenses, production volumes, current production status of mines, and the effectiveness of prevention, mitigation, and offset of the direct impact of mining activity on BD) will continue to be deficient.

124. The alternative GEF scenario will address the threats to BD from mining through a combination of public policy reforms, effective PA and land management, and conservation actions, as well as interventions in the mining sector that maximize the use of resources. This project has been developed using cost-effectiveness criteria based on a set of interventions that are necessary to safeguard BD in the Chocó biogeographic region from the direct impacts of gold, silver, and platinum mining and from their indirect effects. The project will provide recommendations and guidelines for regulatory provisions with regard to mining and the environment at the national and regional levels. These will include actions to prevent, mitigate, compensate, and restore the impacts of mining activity on BD and their ecosystem services. The project will also promote capacity-building of national and regional organizations through strengthened and articulated information systems that facilitate the efficient exchange of information between environmental and mining authorities. This, in turn, will strengthen the decision-making process of the environmental and mining authorities and other stakeholders.

125. Also under the alternative GEF scenario local land use management instruments (POTs and EOTs) will incorporate BD considerations, improving municipal land use management policy and strengthening the regulatory and enforcement capacity of local organizations to ensure compliance, as well as the effective use and distribution of financial and human resources to deal with the indirect and cumulative threats of mining. This will include the development of specific control and management strategies for four PAs in line with their management plans, two management and sustainable use plans for indigenous reserves and collective territories of afro-Colombian communities, and two multiple-use PAs. In addition, two communities with collective land titles will be empowered during the project to lead conservation schemes that are compatible with REDD+ projects.

126. In addition, communities will reduce their economic dependency on mining activities with the development of sustainable use management systems for two NTFP. These initiatives will raise their income level and facilitate short- and medium-term economic decisions that contribute to the conservation of BD and its sustainable use. Last, a restoration pilot project of 100 ha of degraded ecosystems by mining activities will be implemented using restoration protocols developed by the MADS; this pilot exercise will be cost-effective in the long term as it will provide valuable information and lessons learned and will serve as reference for future restoration efforts at the regional and national levels.

127. Finally, the suggested actions will encourage the participation of local communities. This will enable different stakeholders to engage with one another, as well as coordinate actions related to the process of establishing the PAs, and the participatory management plan in two multiple-use PAs. This will reduce the

monitoring and enforcement costs of the project areas as a result of local appropriation of the PA, which in turn increases their management effectiveness.

2.8. Sustainability

128. The ***Environmental sustainability*** of the project's actions is based on a fundamental premise: the investments in BD conservation will be environmentally sustainable if they adopt approved and appropriate protocols for a geographic interest zone and if they are within the priorities of the local authorities or community entities present in the project area. This premise will be implemented in the project though the following strategies:

- Coordinate with environmental authorities (CARs and UASPNN) operating in the project area, empowering and complementing the efforts that have been identified by the environmental authorities in their investment plans. When working with priorities that have already been identified by the local communities (environmental and land use), the project must ensure that the new PAs to be established are properly funded and considered in the budgets of those entities once the project is finalized.
- Work with two communities of collective territories in the REDD+ project feasibility analysis as a long-term sustainability strategy of conservation of the natural forest.
- Co-design a conservation strategy in communal areas in such a way that it is coherent with the life plans or ethnic development plans of these communities, thereby ensuring their incorporation into the priorities of the municipalities in the region through the POTs or EOTs.
- Contribute to the priorities of the MADS and the IIAP with regard to the establishment of restoration activities in the degraded areas of the Colombian Pacific region.
- Create new conservation areas under multiple-use categories (e.g., IUCN VI). These categories have high acceptance levels in local communities, especially in traditional communities, since they provide alternative income strategies that are key for maintaining their land titles and increase the possibilities for local communities in areas that are threatened by large-scale industrial developments.
- Achieve legal reforms that serve to empower local authorities and regulate mining activity. Working within these reforms helps to ensure that project activities will continue well after the project is completed. These will contribute significantly to the long-term sustainability of the BD of the area.

129. The ***Social sustainability*** of this initiative will be guaranteed through the capacity-building activities and the active participation of different stakeholders in the planning, management, and monitoring of the conservation and sustainable management activities of BD. Capacity-building will enable the strengthening of national, regional, and local organizations in the implementation of a regulatory framework in such a way that individuals within institutions will apply the knowledge obtained about the direct and impacts of mining in the protection of important areas for BD. Additionally, the development of tools for the transfer of knowledge and information management activities, will support to the process of making informed decisions. Last, the active involvement of the stakeholders will provide incentives for the participation and co-management of not only this but future protection incentives for BD.

130. The social sustainability of the project will also be achieved by working together with local communities in the development of the feasibility analysis of early REDD+ initiatives; this will strengthen the negotiation capacity of local communities in the implementation of forest conservation strategies. Additionally, the training activities are geared towards promoting active citizen participation, which ensures the social sustainability of BD conservation actions in collective territories, PAs, and their buffer areas. This will lead to the empowerment of local communities and the strengthening of their negotiation skills, as well as sustainable land management. Finally, the capacity of women who lead community-based organizations will be increased so that local development is promoted from the perspective of social and gender equality.

131. ***Institutional sustainability*** will be achieved through the strengthened capacity of public and private institutions to participate in individual and joint decision-making that relates to the protection, conservation, management, and the sustainable use of BD, as well as the inclusion of BD considerations in mining activities.

With regard to the regulatory reforms to be promoted by the project, once rules and policies are developed and updated they will provide long-term support to the national, regional, and local environmental and mining authorities for more effective control and surveillance of mining activities and their direct and indirect impacts on BD.

132. The institutional sustainability of the project will also be achieved through the strengthened capacity of the mining and environmental authorities, PA staff, the indigenous and Afro-Colombian communities, and civil society organizations as a result of the improvements in information systems, enhanced planning and management strategies for the conservation of BD and the reduction of mining threats, and monitoring and enforcement protocols. Similarly, the lessons learned during the development of the project will contribute to institutional sustainability as they will be incorporated as part of the lines of work of these organizations.

133. Therefore, the environmental and mining authorities will have the technical and regulatory instruments that enable them to make decisions that favor BD conservation and that are compatible with the sustainable use of renewable and non-renewable natural resources.

134. The ***financial sustainability*** of the project will be geared towards generating benefits through the implementation of strategies that will reduce direct and indirect threats of mining activities to BD, contributing to it conservation and of ecosystem services in the prioritized areas once the project has ended. These strategies will be implemented so that self-sufficiency is encouraged and skills and capabilities are strengthened.

135. The actions related to strengthening the policy, legal and planning framework in the mining sector to addresses the direct threats to BD from mining operations will be done in such a way that they guarantee the long-term investments for the conservation of BD. Additionally, the project will promote the efficient and effective use of financial and human resources to confront indirect and cumulative mining threats to BD, contributing to the financial sustainability of project actions. The inclusion of BD conservation in local sustainable production systems (sustainable use management system for two NTFP) and improved production chains will allow access to new markets and generate sustainable additional income to local communities, which will reduce their dependency on mining activities.

2.9. Replicability

136. The design and application of instruments for the conservation of BD in landscapes impacted by mining in the Chocó biogeographic region will have an impact on several levels. At the national level, the project will facilitate the reform of policies and legal instruments to incorporate measures that protect BD and environmental services from the impacts of mining activities, which will be applicable to any region in the country where BD is threatened by mining activities. Similarly, the piloting of restoration protocols and the lessons learned from this experience will facilitate their replication in other areas of the region and the country in order to improve the recovery and restoration of areas that have been degraded by mining operations. These actions will act as reference points to be applied in other areas under the leadership of MADS, IIAP, and the CARs.

137. At the subnational level, the project will strengthen the management capacity of government institutions (e.g., UASPNN and CARs), mining authorities, indigenous communities, community councils of afro-Colombians, and other civil society organizations through the improvement of the information systems and training. The consolidation of existing information systems will facilitate the community's and environmental officials' access to information about the status of the licenses, mining titles that have been approved, and the mitigation and compensation actions for mining activities. The regulatory organizations will be strengthened to ensure compliance of the mining operators due to improved access to information regarding the monitoring and control of the mining activities' impacts. The planned actions to reinforce institutional capabilities will be replicated at the sub-national level by the UASPNN (e.g., SIRAP Caribe), the CARs (CODECHOCÓ and CORPOURABÁ), the IIAP, and NGOs, who will promote the conservation of BD in other parts of the Chocó biogeographic region.

138. A the local level, the productive activities (e.g., sustainable use management system for NTFP and REDD+ pilot project) that will be implemented through the project will generate additional income for local communities, will contribute to the sustainability of income, and will promote the equal distribution of benefits. In this way they will serve as references for other local communities to undergo similar productive alternatives to mining activities.

139. The mining impacts on BD are a regional concern. The project also has the potential to be replicated in Latin America, especially in countries that share similar challenges for reducing the direct and indirect impacts of mining on BD. The transfer of knowledge will take place through different instruments, including synergies with other countries of the region through electronic media and the promotion of initiatives through meetings, international conferences, etc.

140. The project will use available tools from the UNDP and the GEF (e.g., information network, discussion groups, documents and publications, etc.) to disseminate best practices and lessons learned so that they may be used to design and implement similar projects. The cost to disseminate best practices and lessons learned will be USD $11,500 (USD $2,300/year), and it has been included in the project's monitoring and evaluation (M&E) plan.

3. Strategic Results Framework and GEF Increment

3.1. Incremental cost analysis

Global and National objectives

141. The objective of the project is to safeguard BD in the Chocó biogeographic region from the direct impacts of gold, silver, and platinum mining as well as the indirect impacts of mining (i.e., population growth and development of agriculture, forestry, fisheries, and other sectors). The global and national environmental benefits to be delivered through the project are:

1. BD-friendly mining operations in eight (8) prioritized municipalities covering 2 million ha in the northern Chocó biogeographic region.
2. Two (2) new multiple-use protected areas (PAs) provide protection to over 70,000 ha of tropical forests.
3. Improved management effectiveness of four (4) national PAs (Las Orquídeas NP, Tatamá NP, Farallones de Cali NP, and Munchique NP) to address multi-sectoral threats over an area of 334,670.63 ha.
4. Improved habitat for BD in cluding the gray-bellied night monkey (*Aotus lemurinus*), pacarana (*Dinomys branickii*), neotropical otter (*Lutra longicaudis*), paca (*Agouti paca*), mountain tapir (*Tapirus pinchaque*); Chestnut Wood Quail (*Odontophorus hyperythrus*), Red-bellied Grackle (*Hypophyrrus pyrohypogaster*), Cauca Guan (*Penelope perspicax*), and Blackburnian Warbler (*Dendroica fusca*).
5. Emissions reduction from deforestation in 70,000 ha of tropical rain forests: 610,649 tCO_2 over a 5-year period (see Annex 8.11).
6. Sustainable use of BD and ecosystem services in indigenous reserves/afro-Colombian territories in the middle and upper Atrato River basin, and the upper San Juan River basin (northern Chocó biogeographic region).
7. Restoration of one hundred (100) ha of ecosystems degraded by mining activities.

Baseline Scenario

142. The baseline scenario includes multiple investments in the Chocó biogeographic region to strengthen the legal and planning framework to reduce threats to BD, as well as for the protection of BD and ecosystem services in areas highly vulnerable to the direct and indirect effects of mining. The baseline programs are described below and include investments planned for the 2014-2018 time period.

143. Planned investments for baseline programs and activities for the 2014-2018 time period are estimated at $11,489,316 USD. These include the following investments from the MADS: a) $221,000 USD to update the legal framework of the National Forests Reserves (NFR); b) $81,000 USD to provide technical support to the CARs in areas with high rates of deforestation; c) $81,603 to strengthen the law that regulates forest ecosystem zoning and use, including the Chocó biogeographic region, and for updating the national map of forest cover; and d) $588,000 USD for the design and strengthening of economic tools for environmental management and for promoting green businesses, for which the Chocó biogeographic region has been prioritized. Additionally, the Government of Colombia through the UASPNN will invest $6,032,713 USD to cover basic operating costs of the four PAs prioritized by the project (Las Orquídeas NP, Tatamá NP, Farallones de Cali NP, and Munchique NP).
162.CODECHOCO and CORPOURABA will invest $1,000,000 USD in institutional strengthening. Additionally, CODECHOCO will make an investment of $855,000 USD to promote sustainable biotrade initiatives and the promotion of bio-businesses and agroforestry. The CVC will invest $170,000 USD for the sustainable use of BD in communal territories of afro-Colombian communities in the Dagua, Naya, Anchicayá, and Buenaventura river watersheds.

144. The IIAP will invest $200,000 USD for the development of tools to prioritize strategic ecosystems based on biological, socioeconomic, and vulnerability criteria. Additionally, the IIAP will invest $300,000 USD to strengthen the national catalog on conservation and sustainable use of BD. Finally, ACDIVOCA will invest $1,960,000 USD in the development of economic alternatives (sustainable mining, forest-related projects, cocoa projects, etc.) to improve the socioeconomic conditions of the people of the region.

GEF Alternative to Generate Global Environmental Benefits

145. Despite the important contribution of the planned baseline programs and projects, these will not be sufficient to reduce the direct and indirect impacts of gold, silver, and platinum mining on BD in the Chocó biogeographic region of Colombia. A GEF **alternative scenario** will help to remove the barriers that prevent reducing the threats to BD posed by mining. A description of the benefits of the GEF alternative scenario follows.

146. The alternative GEF scenario will **address the direct threats to BD from mining operations through the policy, legal, and planning framework in the mining sector**. Incremental financing will be in the amount of $11,702,942 USD; $1,000,000 USD will be provided by the GEF and $10,702,942 USD will be provided by co-financing sources. The GEF alternative will include investments from CODECHOCO (USD $538,241), CORPOURABA (USD $9,250), the Departmental Government of Antioquia (USD $245,704), IIAP (USD $555,000), UASPNN (USD $533,294), MME (USD $385,453), WWF (USD $370,000), USAID (USD$7,030,000), and UNDP (USD $1,036,000).

147. Additionally, the GEF scenario will allow the **protection of BD in areas highly vulnerable to indirect effects from mining**. The incremental financing will be in the amount of $22,979,102 USD; $4,571,429 USD will be provided by the GEF and $18,407,673 USD will be provided by co-financing sources. The GEF alternative will include investment from CODECHOCO (USD $843,728), CORPOURABA (USD $14,500), the Cauca Regional Autonomous Corporations – CRC (USD $684,559), CVC (USD $945,529), the Departmental Government of Antioquia (USD $385,158), IIAP (USD $870,000), UASPNN (USD $835,974), MME (USD $604,224), WWF USD $580,000), USAID (USD $11,020,000), and UNDP (USD $1,624,000).

148. System Limits: The GEF alternative will be implemented in: a) the northern Colombian Chocó biogeographic region, specifically in the middle and lower Atrato region (municipalities of Vigía del Fuerte, Murindó, and Frontino in the department of Antioquia); and the Alto San Juan region (municipalities of Bojayá, Carmen del Darién, and Riosucio in the department of Chocó); and b) the municipality of Buenaventura (department of the Valle del Cauca) in the southern Chocó biogeographic region. The project will strengthen the effective management of four national PAs (Las Orquídeas NP, Tatamá NP, Farallones de Cali NP, and Munchique NP), which together provide protection to 334,670.63 ha of tropical ecosystems in the Colombian Chocó biogeographic region. Additionally, the project will develop management and resource use plans for

indigenous reserves/ afro-Colombian territories and participatory management plans for two (2) new PAs that will be established by the project and will cover 70,000 ha.

149. Incremental costs summary: The incremental cost matrix presented below summarizes baseline costs and incremental activity costs for each project component. The total baseline amounts to **$11,489,316** USD. The costs of the incremental activities required to contribute to global benefits include **$5,850,000** USD to be funded by the GEF and **$30,642,752** USD to be provided by co-financers, for a total of $**36,492,752** USD. All project co-financers have stated their commitment to the project through written signed letters.

150. In summary, the GEF Alternative has a total cost of **$47,982,068** USD, 12.2% of which will be provided by GEF (excluding PPG resources).

OUTCOME	BASELINE (A)		ALTERNATIVE (A+B)		INCREMENT (B)	
Outcome 1: The Policy, legal and planning framework in the mining sector addresses the direct threats to biodiversity from mining operations	MADS: update the legal framework of the NFR	221,000	GEF	1,000,000	GEF	1,000,000
	MADS: technical support to the CARs	81,000	Co-financing	10,702,942	Co-financing	10,702,942
	MADS: strengthen regulation for forest ecosystem zoning and use	81,603	Codechoco	538,241		
	CODECHOCO and CORPOURABA: Institutional strengthening	1,000,000	Corpouraba	9,250		
	IIAP: tools/methods to prioritize strategic ecosystems	200,000	Departmental Government of Antioquia	245,704		
	IIAP: national register of information on BD	300,000	IIAP	555,000		
			UASPNN	533,294		
			MME	385,453		
			WWF	370,000		
			USAID	7,030,000		
			UNDP	1,036,000		
			Baseline	1,883,603		
	Subtotal Baseline	1,883,603	Subtotal alternative	13,586,545	Subtotal increment	11,702,942
Outcome 2: Protection of biodiversity in areas highly vulnerable to the indirect effects of mining	UASPNN: basic operating costs of four (4) PAs	6,032,713	GEF	4,571,429	GEF	4,571,429
	MADS: economic tools for environmental management and promoting green businesses	588,000	Co-financing	18,407,673	Co-financing	18,407,673
	CODECHOCO: sustainable biotrade initiatives and the promotion of bio-businesses and agroforestry	855,000	Codechoco	843,728		
	CVC: sustainable use of BD in territories of afrocolombian communities	170,000	Corpouraba	14,500		

OUTCOME	BASELINE (A)		ALTERNATIVE (A+B)		INCREMENT (B)	
	ACDIVOCA: economic alternatives for local communities	1,960,000	CRC	684,559		
			CVC	945,530		
			Departmental Government of Antioquia	385,158		
			IIAP	870,000		
			UASPNN	835,974		
			MME	604,224		
			WWF	580,000		
			USAID	11,020,000		
			UNDP	1,624,000		
			Baseline	9,605,713		
	Subtotal Baseline	9,605,713	Subtotal alternative	32,584,815	Subtotal increment	22,979,102
Project Management	NA		GEF	278,571	GEF	278,571
			Co-financing	1,532,137	Co-financing	1,532,137
			Codechoco	72,737		
			Corpouraba	1,250		
			CRC	36,029		
			CVC	49,764		
			Departmental Government of Antioquia	33,203		
			IIAP	75,000		
			UASPNN	72,066		
			MME	52,088		
			WWF	50,000		
			USAID	950,000		
			UNDP	140,000		
			Baseline	0		
	Subtotal Baseline	0	Subtotal alternative	1,810,708	Subtotal increment	1,810,708
TOTAL			Total GEF	5,850,000	Total GEF	5,850,000
			Total Co-financing	30,642,752	Total Co-financing	30,642,752
			Total Baseline	11,489,316		
	TOTAL BASELINE	11,489,316	TOTAL ALTERNATIVE	47,982,068	TOTAL INCREMENT	36,492,752

3.2 Project Results Framework

	Indicator	Baseline	Targets by End of Project	Verification Sources	Assumptions and Risks
Project Objective: To safeguard biodiversity in the Chocó biogeographic region from the direct impacts of gold, silver and platinum mining and indirect impacts of mining [population growth and development of agriculture, forestry, fisheries and other sectors]	Area (ha) of four (4) existing protected areas (PAs) under sustainable management protects local ecosystems	– 0	– 334,671 ha	– Management Plans – GIS databases and maps – Monitoring reports/databases – Official gazette	– Decision-makers, including the mining sector, are willing to protect areas rich in BD against direct and indirect mining impacts – Environmental variability (including climate change) is within the normal range – Monitoring and control efforts are optimal
	Total area (ha) of forest protected by new multiple use PAs (MUPAs) against the impacts of mining	– 0	– 70,000 ha		
	Change in the management effectiveness of four (4) PAs according to the management effectiveness scorecard (METT)	– Las Orquídeas NP: 67 – Tatamá NP: 43 – Farallones de Cali NP: 53 – Munchique NP: 70	– Las Orquídeas NP: 87 – Tatamá NP: 63 – Farallones de Cali NP: 73 – Munchique NP: 80	– Updated METT scorecards – Project evaluation reports: mid-term and final evaluations	– Interest is maintained by the national, regional, and local governments, local stakeholders, and the mining sector in improving PA management.
Outcome 1. The Policy, legal and planning framework in the mining sector addresses the direct threats to biodiversity from mining operations	National-level legal, policy, and planning instruments incorporate environmental and social criteria to prevent, mitigate, and offset the direct impact of mining activity on BD and ecosystem services	– Existing legal, policy, and planning instruments: a) Mining Code; b) Environmental License required for mining operations; and c) Guidelines for the designation of mining reserve areas	– Updated legal, policy, and planning instruments with recommendations and guidelines incorporate environmental and social criteria to prevent, mitigate, and offset the direct impact of mining activity on BD and ecosystem services; a) the Mining Code; b) Environmental License; c) Guidelines for the designation	– Proposals for reform – Official gazette	– Political will exists – Legal feasibility exists

			of mining reserve areas		
	Number of agencies from the mining and environmental sectors articulated in the unifying platform for information systems (UPIS)	– 0	– Environmental sector: 5 (UASPNN, IIAP, ANLA, CODECHOCO, CORPOURABA) – Mining sector: 1 (ANM)	– Standards and protocols for sharing information – Agreements for sharing data and access to the data – Number of data sets available in through the UPIS – Record of information queries	– Political will exists and agencies are willing to participate
Outputs: 1.1. The Mining Code, Environmental License, and Guidelines for defining mining reserves include recommendations and guidelines to prevent, mitigate, and offset the impact of mining activities on biodiversity. 1.2. The Mining Development Plan (PDM) or regional land use/environmental plans (Regional Environmental Management Plan [PGAR], POT, or Watershed Management Plan [POMCA]) includes the results of the Strategic Environmental Analysis (EAE) and considerations for the conservation of biodiversity and ecosystem services. 1.3. Existing information systems on environmental management conditions, licensing, and mining titles strengthen decision-making processes and facilitate compliance and monitoring of impacts on biodiversity. 1.4. Training program institutionalized and at least 300 people trained by end of the project, targeting the National Environmental Licensing Agency, the National Mining Agency (ANM), the Mining and Energy Planning Unit (UPME), the Colombian Geological Service (SGC), Regional Autonomous Corporations, the UASPNN (Western Andes and Pacific Units), departmental governments, municipal councils, community councils, and indigenous councils and peasants working in the Chocó biogeographic region.					
Outcome 2. Protection of biodiversity in areas highly vulnerable to the indirect effects of mining	Number of municipal planning instruments (POTs) that incorporate conservation priority areas and zoning to address the direct and indirect impacts of mining on BD and ecosystem services	– 0	– 5	– Protocols for monitoring and control – Technical reports and documents with recommendations for the incorporation of conservation priority areas and zoning	– Political will exists – Legal feasibility exists
	Change in capacity to generate, use and share geographic, socioeconomic, and	– Local level	– Local level	– Capacity Development Scorecard updated – Project	– Institutions and individuals apply their new knowledge and

	biophysical information needed for spatial planning and management purposes that take into consideration the indirect impacts of mining according to the UNDP Capacity Development Scorecard (200 people trained: CARs, national-level PA managers, municipalities, and community level organizations) a. Capacities for engagement b. Capacities to generate, access, and use information and knowledge c. Capacities for policy and legislation development d. Capacities for management and implementation e. Capacities to monitor and evaluate	<table><tr><th></th><th>Espavé</th><th>Asocasan</th><th>Cocomacia</th></tr><tr><td>a.</td><td>2.00</td><td>1.83</td><td>1.33</td></tr><tr><td>b.</td><td>1.33</td><td>1.75</td><td>0.83</td></tr><tr><td>c.</td><td>0.75</td><td>1.38</td><td>0.75</td></tr><tr><td>d.</td><td>1.00</td><td>1.00</td><td>1.00</td></tr><tr><td>e.</td><td>1.00</td><td>1.33</td><td>1.33</td></tr></table> – Regional level <table><tr><th></th><th>IIAP</th><th>Codechocó</th><th>Munchique NP</th><th>Farallones de Cali NP</th><th>Las Orquideas NP</th><th>Tatamá NP</th></tr><tr><td>a.</td><td>2.00</td><td>1.67</td><td>2.33</td><td>2.67</td><td>2.00</td><td>1.33</td></tr><tr><td>b.</td><td>1.50</td><td>2.17</td><td>0.83</td><td>0.83</td><td>1.33</td><td>0.67</td></tr><tr><td>c.</td><td>1.75</td><td>1.00</td><td>0.75</td><td>1.00</td><td>1.50</td><td>0.75</td></tr><tr><td>d.</td><td>1.33</td><td>1.33</td><td>0.67</td><td>0.67</td><td>1.33</td><td>1.00</td></tr><tr><td>e.</td><td>1.67</td><td>2.00</td><td>1.00</td><td>1.67</td><td>2.00</td><td>1.67</td></tr></table> – National level <table><tr><th></th><th>ANLA</th><th>ANM</th><th>MME</th><th>MADS</th></tr><tr><td>a.</td><td>1.67</td><td>1.33</td><td>2.00</td><td>3.00</td></tr><tr><td>b.</td><td>1.00</td><td>1.67</td><td>2.00</td><td>1.50</td></tr><tr><td>c.</td><td>1.25</td><td>1.50</td><td>1.75</td><td>0.75</td></tr><tr><td>d.</td><td>0.67</td><td>0.67</td><td>2.00</td><td>1.00</td></tr><tr><td>e.</td><td>0.67</td><td>1.33</td><td>2.00</td><td>1.67</td></tr></table>	<table><tr><th></th><th>Espavé</th><th>Asocasan</th><th>Cocomacia</th></tr><tr><td>a.</td><td>2.40</td><td>2.20</td><td>1.60</td></tr><tr><td>b.</td><td>1.60</td><td>2.10</td><td>1.00</td></tr><tr><td>c.</td><td>0.90</td><td>1.65</td><td>0.90</td></tr><tr><td>d.</td><td>1.20</td><td>1.20</td><td>1.20</td></tr><tr><td>e.</td><td>1.20</td><td>1.60</td><td>1.60</td></tr></table> – Regional level <table><tr><th></th><th>IIAP</th><th>Codechocó</th><th>Munchique NP</th><th>Farallones de Cali NP</th><th>Las Orquideas NP</th><th>Tatamá NP</th></tr><tr><td>a.</td><td>2.4</td><td>2.0</td><td>2.8</td><td>3.2</td><td>2.4</td><td>1.6</td></tr><tr><td>b.</td><td>1.8</td><td>2.6</td><td>1.0</td><td>1.0</td><td>1.6</td><td>0.8</td></tr><tr><td>c.</td><td>2.1</td><td>1.2</td><td>0.9</td><td>1.2</td><td>1.8</td><td>0.9</td></tr><tr><td>d.</td><td>1.6</td><td>1.6</td><td>0.8</td><td>0.8</td><td>1.6</td><td>1.2</td></tr><tr><td>e.</td><td>2.0</td><td>2.4</td><td>1.2</td><td>2.0</td><td>2.4</td><td>2.0</td></tr></table> – National level <table><tr><th></th><th>ANLA</th><th>ANM</th><th>MME</th><th>MADS</th></tr><tr><td>a.</td><td>2.00</td><td>1.60</td><td>2.40</td><td>3.00</td></tr><tr><td>b.</td><td>1.20</td><td>2.00</td><td>2.40</td><td>1.80</td></tr><tr><td>c.</td><td>1.50</td><td>1.80</td><td>2.10</td><td>0.90</td></tr><tr><td>d.</td><td>0.80</td><td>0.80</td><td>2.40</td><td>1.20</td></tr><tr><td>e.</td><td>0.80</td><td>1.60</td><td>2.40</td><td>2.00</td></tr></table> Increase by 20% at all levels	evaluation reports – Training logs	skills in a satisfactory manner – Replication of knowledge acquired in the training program – There are stable human resources within the agencies that benefit from the training activities

			(3.0 is the highest score possible)		
	Area (ha) of degraded mining lands under restoration processes in areas key for biodiversity	– 0	– 100 ha	– Field surveys/notes – Project monitoring and evaluation reports: PIR/APR, mid-term and final evaluations	– Restoration protocols in place
	Number of new multiple-use PAs created	– 0	– 2	– Official gazette – PA establishment proposal and related documentation	– Willingness among decision-makers to establish new PAs – Consensus among local stakeholders for PA establishment
	Four (4) PAs with improved monitoring and surveillance in controlling access/resource use as measured by the METT	– Las Orquídeas NP: 2 – Protection systems are moderately effective in controlling access/resource use – Tatamá NP: 1 – Protection systems are only partially effective in controlling access/resource use – Farallones de Cali NP: 1 – Protection systems are only partially effective in controlling access/resource use – Munchique NP: 2 - Protection systems are moderately effective in controlling access/resource use	– Las Orquídeas NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Tatamá NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Farallones de Cali NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use – Munchique NP: 3 – Protection systems are largely or wholly effective in controlling access/ resource use	– Updated METT scorecards – Project monitoring and evaluation reports: PIR/APR, mid-term and final evaluations	
	Avoided emissions (tCO_2-e) due to tropical rainforest deforestation at the end of the project	– 0	– 610,649 tCO_2-e	– C flow monitoring system reports – Field/project reports	– Monitoring effort are optimal – Progress at the national level in the development of

	Avoided deforestation (ha) at the end of the project	– 0	– 2,034.80 ha	– REDD+ projects feasibility analyses reports – Project evaluation reports: PIR/APR, mid-term and final evaluations	REDD+ and developing and implementing a system of social and environmental safeguards
	Number of initiatives for the sustainable use of biodiversity in the marketing stage	– 0	– Two (2) NTFP: assai palm (*Euterpe oleracea*) and "jagua" (*Genipa americana*)	– Sale agreements/purchase orders – Project evaluation reports: PIR/APR, mid-term and final evaluations	– Proposed livelihood strategies are economically viable – Continued interest from local communities to participate – Sampling efforts are optimal
	Change in the annual average income of the local community members (including men and women) derived from the sale of assai palm (*Euterpe oleracea*) and *jagua* (*Genipa americana*)	– 0%	– Women: X* – Men: X* Target will be estimated during the first 6 months of project execution	– Annual survey/field notes of the local community members income – Project evaluation reports: PIR/APR, mid-term and final evaluations	

Outputs:

2.1. Five Territorial Land Use Plans (POT) covering an area of 2 million ha delimit areas for development, including infrastructure placement, placement of settlements, farming, and forestry, taking into account BD importance.

2.2. Enforcement capabilities of regulatory bodies emplaced: compliance monitoring with planning structures set out in the POT/EOT, PM, POMCA; protocols to strengthen coordination and the implementation capacity of regulatory and control agencies; aerial surveys and other surveillance measures to assess compliance; improved policing and prosecution of malfeasance.

2.3. Management and control strategies for four national-level PAs (Tatamá NP, Las Orquídeas NP, Farallones de Cali NP, and Munchique NP) contribute to the reduction of indirect threats to BD associated with mining activities.

2.4. Two sustainable use plans for Indigenous Reserves/Afro-Colombian territories that are affected by mining activities are incorporated into the management tools of the CARs to facilitate their enforcement by ethnic authorities.

2.5. Gazettal of two (2) new multiple-use PAs covering 70,000 ha (legal gazettal and boundary demarcation).

2.6. Strengthened institutional and community capacity for 200 people (know-how and equipment and other needs) for planning, administration, surveillance and control of protected areas.

2.7. Two feasibility analysis for the development of REDD+ projects undertaken with at least two communities of collective territories.

2.8. Sustainable use management system for non-timber forest products to address impacts derived from commoditization of the resources as a strategy for conservation and use of biodiversity products and reduced dependence on mining activities.
2.9. One restoration pilot project (100 ha) to test the National Restoration Protocol (with co-financing from the IIAP).

4. Total Budget and Work Plan

GEF Outcome /Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
OUTCOME 1:	WWF		GEF	71300	Local consultants	25,916	25,916	0	0	0	51,832	1
				71400	Contractual Services - Individuals	45,916	53,560	53,560	53,560	45,916	252,512	2
				71600	Travel	8,234	9,413	9,413	1,176	1,176	29,412	3
				72100	Contractual Services – Companies	208,022	158,356	125,737	23,530	0	515,645	4
				72800	IT Equipment	16,000	24,000	24,000	16,000	0	80,000	5
				75700	Training, Workshops and Confer	7,648	29,710	29,710	2,648	883	70,599	6
Total Outcome 1						**311,736**	**300,955**	**242,420**	**96,914**	**47,975**	**1,000,000**	
OUTCOME 2:	WWF		GEF	71200	International Consultants	0	0	19,500	0	22,500	42,000	7
				71300	Local consultants	8,482	19,790	43,798	31,798	15,000	118,868	8
				71400	Contractual Services Individuals	69,868	85,420	62,092	46,540	46,540	310,460	9
				71600	Travel	14,709	22,944	37,224	26,474	16,986	118,337	10
				72100	Contractual Services - Companies	729,427	1,411,423	1,019,271	611,201	14,350	3,785,672	11
				72500	Supplies	0	0	150	0	650	800	12
				74200	Audio Visual & Print Production Cost	0	0	2,117	2,822	2,117	7,056	13
				75700	Training, Workshops and Confer	0	94,118	94,118	0	0	188,236	14
Total Outcome 2						**828,140**	**1,628,041**	**1,278,270**	**718,835**	**118,143**	**4,571,429**	
PROJECT MANAGEMENT	WWF		GEF	71400	Contractual Services Individuals	46,540	46,540	46,540	46,540	46,540	232,700	15
				71600	Travel	3,000	3,000	3,000	3,000	3,000	15,000	16
				72500	Supplies	500	500	500	500	500	2,500	17
				72800	IT Equipment	3,931	230	230	230	230	4,851	18
				74200	Audio Visual & Print	1,000	1,000	1,000	1,000	1,000	5,000	19

GEF Outcome /Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
					Production Cost							
				74500	Miscellaneous Expenses	1,704	1,704	1,704	1,704	1,704	8,520	20
				75700	Training, Workshops and Confer	2,000	2,000	2,000	2,000	2,000	10,000	21
Total Project Management						**58,675**	**54,974**	**54,974**	**54,974**	**54,974**	**278,571**	
PROJECT TOTAL						**1,192,897**	**1,989,624**	**1,575,664**	**870,723**	**221,092**	**5,850,000**	

Summary of the Total Budget

Name of the Donor	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)
GEF	1,192,897	1,989,624	1,575,664	870,723	221,092	**5,850,000**
Codechoco	734,706	720,000				**1,454,706**
Corpouraba	12,500	12,500				**25,000**
CRC	360,294	360,294				**720,588**
CVC	497,647	497,647				**995,294**
Departmental Government of Antioquia	552,833	26,116	27,244	28,372	29,500	**664,065**
IIAP	300,000	300,000	300,000	300,000	300,000	**1,500,000**
UASPNN	288,267	288,267	288,267	288,267	288,266	**1,441,334**
MME	1,041,765					**1,041,765**
WWF	200,000	200,000	200,000	200,000	200,000	**1,000,000**
USAID	3,800,000	3,800,000	3,800,000	3,800,000	3,800,000	**19,000,000**
UNDP	933,333	933,333	933,334			**2,800,000**
TOTAL	**9,914,242**	**9,127,781**	**7,124,509**	**5,487,362**	**4,838,858**	**36,492,752**

Exchange rate: 1 USD = 1,700 Colombian pesos

Summary of the Atlas Budget

Account Code Ppto Atlas	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)
71200	International Consultants	0	0	19,500	0	22,500	42,000
71300	Local consultants	34,398	45,706	43,798	31,798	15,000	170,700
71400	Contractual Services- Individuals	162,324	185,520	162,192	146,640	138,996	795,672

Account Code Ppto Atlas	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)
71600	Travel	25,943	35,357	49,637	30,650	21,162	162,749
72100	Contractual Services - Companies	937,449	1,569,779	1,145,008	634,731	14,350	4,301,317
72500	Supplies	500	500	650	500	1,150	3,300
72800	IT Equipment	19,931	24,230	24,230	16,230	230	84,851
74200	Audio Visual & Print Prod. Costs	1,000	1,000	3,117	3,822	3,117	12,056
74500	Miscellaneous expenses	1,704	1,704	1,704	1,704	1,704	8,520
75700	Training, Workshops and Confer	9,648	125,828	125,828	4,648	2,883	268,835
TOTAL		**1,275,250**	**1,967,271**	**1,545,664**	**840,723**	**221,092**	**5,850,000**

Budget Line and Description	Total (USD)	Percentage
71200 – International consultants	42,000	0.71
71300 – Local Consultants	170,700	2.92
71400 - Contractual services - individuals	795,672	13.60
71600 – Travel	162,749	2.78
72100 – Contractual Services – Companies	4,301,317	73.52
72500 – Supplies	3,300	0.06
72800 – IT Equipment	84,851	1.45
74200 – Audiovisual & printing production costs	12,056	0.21
74500 – Miscellaneous expenses	8,520	0.15
75700 - Training, Workshops and Confer	268,835	4.60
TOTAL	**5,850,000**	**100.00**

Outcome	Total budget assigned	Percentage of total budget assigned
Outcome 1	1,000,000	17.1%
Outcome 2	4,571,429	78.1%
Project Management	278,571	4.8%
TOTAL	**5,850,000**	**100.0%**

Atlas Category	Atlas Code	Budget Notes
Outcome 1		
1. Local consultants	71300	• Consulting for the development of the catalogue. Total cost: $23, 560; 40 weeks at $589 a week • Consulting for the development of the geographic visor: Total cost: $28,272; 48 weeks at $589 per week
2. Contractual Services - Individuals	71400	• Individual consultant, policy expert (coordinator of component 1) Total Cost: $191,360; 260 weeks at $736 per week. • Coordinator in charge of establishing the Exchange and information agreements, as well as the technology transfer agreements. Partial time (50%). Total cost: $61,152; 208 weeks at $294 per week
3. Travel	71600	• Travel expenses for training activities. Total Cost: $11,768; year 2: $5,884: year 3: $5,884 • Travel expenses for the transportation of the component coordinator 1. Total Cost: $5,880; $1,176/year for five years. • Travel expenses for the transportation of persons who participate in meetings about BD incorporation in mining planning instruments. Total Cost: $5,882; year 1: $1,176; year 2: $2,353; year 3: $2,353 • Transportation tickets to meetings and workshops for socialization and validation of the compensation guide and proposal of recommendations. Total cost: $5,882
4. Contractual Services - Companies	72100	• Design, execution, and monitoring of the training plan on key issues related to BD conservation and mining, at the national, regional, and local level. Total cost: $203,485; year 1: $40,697; year 2: $81,394; year 3: $81,394 • Strengthening of environmental information systems: BD, PAs, and mining titles. Total Cost: $117,650; year 1: $23,530; year 2: $35,295; year 3: $35,295; year 4: $23,530 • Development of the portal for sharing within the SIAC. Total Cost: $11,768; year 1: $5,884; year 2: $5,884 • Support and maintenance of portal for sharing within the SIACl. Total cost: $18,096; 104 weeks at $174 per week • Proposal of guidelines and tool box. Work team (GIS expert, developer/designer, and policy expert). Total Cost: $37,058 • Incorporate results from the EAE and biodiversity considerations in the mining planning process. The work

		team includes a policy expert, an economist, and a lawyer. Total cost: $53,470; year 1: $26,735; year 2: $26,735 • Policy recommendations and guidelines to prevent, mitigate, and offset the impact of mining activities on biodiversity. Work team (lawyer and policy expert). The contract includes the costs of inter-institutional meetings for a proposal document and the diagramming of documents. Total Cost: $74,118
5. IT Equipment	72800	• Strengthening of the infrastructure and acquisition of support software. Total cost: $80,000; year 1: $16,000; year 2: $24,000; year 3: $24,000; year 4: $16,000
6. Training, Workshops and Confer	75700	• Geographic and environmental information management training activities. Total Cost: $47,062; year 2: $23,531; year 3: $23,531 • Socialization, divulgation, and validation workshops of the different proposals. Total Cost: $8,827; year 2: $2,648; year 3: $2,648; year 4: $2,648; year 5: $883 • Socialization and compensation guide validation workshops. 3 local workshops with CARs (CODECHOCO and CORPOURABA). Includes rooms, refreshments, logistic, photocopies. Total cost: $5,883 • Workshops and meetings about mainstreaming BD in planning instruments. Total Cost: $8,827; year 1: $1,765; year 2: $3,531; year 3: $3,531
Outcome 2		
7. International consultants	71200	• Project Mid-term evaluation. Total cost: $19,500; 4 weeks at $4,875 per week • Final Project Evaluation. Total cost: $22,500; 4 weeks at $5,625 per week
8. Local consultants	71300	• Consultant for the design and pilot test of articulation protocols between mining and environmental authorities, and identification of articulation spaces. Total cost: $28,272; 48 weeks at $589 per week • Consultant for the tracking and systematization of the articulation protocol application between mining and environmental authorities, and articulation with the information system. Total cost: $30,628; 52 weeks at $589 per week • Design and Implementation of monitoring system of the impacts of the generation of the social and environmental impacts of the business initiatives. Total cost: $32,968; 52 weeks at $634 per week • Mid-term Project Evaluation. Total Cost: $12,000; 4 weeks at $3,000 per week • Final Project Evaluation. Total cost: $15,000; 4 weeks at $3,750 per week
9. Contractual Services - Individuals	71400	• Technical Project assistant. Support the coordination of component 2 activities. Financing from Component: 50%. Total Cost: $60,320; 260 weeks at $232 per week • Project Coordinator. Coordinate component activities. Financing from Component: 50%. Total cost: $114,920; 260 weeks at $442 per week • Financial expert. Report the execution of component 2 under UNDP procedures. Financing from Component: 50%. Total cost: $57,460; 260 weeks at $221 per week • Expert in formulating two viable venture initiatives, including business plans. Total cost: $49,440; 96 weeks at $515 per week • Assistant consultant in the formulation of two viable venture initiatives, including business plans. Total cost:

		$28,320; 96 weeks at $295 per week
10. Travel	71600	• Travel expenses for mid-term evaluation Total cost: $10,750 • Travel expenses for the final evaluation. Total cost: $13,450 • Travel expenses of venture consulting trips. Total cost: $11,765; year 1: $2,353; year 2: $4,706; year 3: $2,353; year 4: $2,353 • Project coordination travel expenses relative to the component. Total cost: $17,680; $3,536/year • Travel expenses to participate in fairs and commercial tours (bioexpo handcrafts, etc.). Participation of five fairs. Total cost; $29,412; year 2: $5,882; year 3: $11,765; year 4: $11,765 • Travel expenses for field visits, participation in discussion and articulation validation meetings between regulatory and financial organizations. It includes travel expenses of officials of the control and regulation bodies. Total cost: $35,280; year 1: $8,820; year 2: $8,820; year 3: $8,820; year 4: $8,820
11. Contractual Services - Companies	72100	• Technical reports on specific topics of Project activity areas. Total cost: $5,000; $1,000/year • External audits (5). Total cost: $29,250; 5 weeks at $5,850 a week • Participative development of the management plans for two multiple-use PAs. Total Cost: $92,750; year 3: $46,375; year 4: $46,375 • Creation and management plan of a new multiple-use regional PA (training and events, personnel, team and supplies costs, implementation of priority issues, travel expenses, other operative costs). Total cost: Total Cost: $320,592. Year 1: $40,942; year 2: $145,413; year 3: $108,060; year 4: $26,177 • Creation and management plan of a new multiple-use regional PA (training and events, personnel, team and supplies costs, implementation of priority issues, travel expenses, other operative costs). Total cost: $320,591. Year 1: $40,942; year 2: $145,413; year 3: $108,060; year 4: $26,176 • Incorporation of mining impacts on POT and LMS: political scientist, architect, biologist, economist, GIS, lawyer, POT specialist; the contract includes workshop costs. Total cost: $226,745; year 2: $45,349; year 3: $90,698; year 4: $90,698 • Formulation of two sustainable use plans of Indigenous Reservations / Collective Afro-Colombian Lands. The work team includes technical and social consultants, community leaders; the contract includes cartography, training programs, and community assemblies. Follow-up visits. Total cost: $295,000; year 1: $59,000; year 2: $88,500; year 3: $88,500; year 4: $59,000 • Implementation of prioritized business initiatives for NTFP. Total Cost: $180,000. Year 2: $60,000; year 3: $60,000; year 4: $60,000 • Final report. Total cost: $2,500 • Project Executive Board meetings. Total cost: $2,500; 5 weeks at $500 per week • Revision and systematization of lessons learned and good practices. Total cost: $7,500 ; $1,500/year • Project initiation workshop. Total cost: $4,000 • Workshops related with mid-term evaluation ($1,500) and final evaluation ($3,000). Total cost: $4,500 • Design/adjustment and implementation of control and management strategies in PA for the reduction of indirect threats and pressures caused by mining. Total cost: $1,167,444; year 1: $350,233; year 2: $466,978; year 3: $233,489; year 4: $116,744

		• Design, execution, and follow-up of the training plan regarding specific tools for the planning, administration, surveillance, and control of protected or multiple-use areas. It includes selection of tools, design of modules, training, training sites, and follow-up, material printing. Total cost: $241,395; year 1: $48,279; year 2: $96,558; year 3: $96,558 • Information generation and feasibility analysis for REDD+ projects. Contract include literature review; signature of community agreements, forest characterization; carbon accounting, estimation of emissions reduction; social characterization; base line estimation of deforestation; risk analysis, preparation of maps, monitoring plan, BD survey; contract with the assigned operator; field visits, design of a benefit-equal distribution mechanism; design and execution of a marketing strategy. Total Cost: $885,905; year 1: $177,181; year 2: $354,362; year 3: $177,181; year 4: $177,181
12. Supplies	72500	• Supplies for Mid-Term ($250) and final ($550) evaluations. Total cost: $800
13. Audiovisual & Print Production Cost.	74200	• Publication of Project achievement reports. Total cost: $7,056; year 3: $2,117; year 4: $2,822; year 5: $2,117
14. Training, workshops, and confer	75700	• Local training for the development of venture capabilities. Total cost: $176,472; year 2: $88,236; year 3: $88,236 • Inter-institutional meetings for the revision of administrative control instruments and use of natural resources. Travel expenses of officials, meetings. Total Cost: $11,764; year 2: $5,882; year 3: $5,882
Project Management		
15. Contractual Services - Individuals	71400	• Technical Project assistant: Technical support of the Project coordination. Financing from the Management Budget; 50%. Total cost: $60,320; 260 weeks at $232 per week • Project coordinator: Project planning, day-to-day management of project activities, reporting, maintain relationships between the interested parties of the Project. Financing from the Management Budget: 50%. Total cost: $114,920; 260 weeks at $442 per week. • Financial specialist. Responsible for the financial management of the Project, accounting, purchases, and report presentations. Financing from the Management Budget: 50%. Total cost: $57,460; 260 weeks at $221 per week
16. Travel	71600	• Project trip expenses. Total cost: $15,000 ; $3,000/year
17. Supplies	72500	• Office supplies for activities related to the Project. Total cost: $2,500; $500/year
18. IT Equipment	72800	• Three computers. Total cost: $3,300 • One printer. Total cost: $401 • Maintenance of computers and printer. Total cost: $1,150 ; $230 / year
19. Audiovisual & Print Production Cost.	74200	• Audiovisual production costs and publications. Total cost: $5,000; $1,000/year

20. Miscellaneous expenses	74500	• Unforeseen costs related to project management. Total cost: $8,520; $1,704/year
21. Training, Workshops and Confer.	75700	• Project meetings. Total Cost: $10,000; $2,000/year

5. Management Arrangements

151. The project will be executed following UNDP guidelines for CSO Implementation and is an integral part of the UNDP Country Programme Action Plan (CPAP) (2008 – 2014) signed between the Government of Colombia (GoC) and the UNDP in 2008. The signing of the UNDP CPAP (2008 – 2014) constitutes a legal endorsement by the GoC.

152. To ensure UNDP's accountability for programming activities and use of resources while fostering national ownership, the appropriate management arrangements and oversight of UNDP programming activities will be established. The management structure will respond to the project's needs in terms of direction, management, control, and communication. The project's structure will be flexible in order to adjust to potential changes during project execution. The UNDP Project Management structure consists of roles and responsibilities that bring together the various interests and skills involved in, and required by, the project.

153. The UNDP will act as the Implementing Entity for this project, according to the GEF conventions. As a part of the Steering Committee (SC), UNDP brings to the table a wealth of experience working with the GoC in the area of biodiversity conservation and sustainable use. PA management, and sustainable development, and is well-positioned to assist in both capacity-building and institutional strengthening. The UNDP Country Office (UNDP-CO) and UNDP/GEF Regional Coordination Unit (RCU) in Panama will be responsible for transparent practices, appropriate conduct, and professional auditing. Staff and consultants will be contracted according to the established rules and regulations of the United Nations and all financial transactions and agreements will similarly follow the same rules and regulations.

154. The project will be executed by WWF, as the Implementing Partner (CSO implementation modality). The WWF will sign the grant agreement with UNDP on behalf of the GoC and will be responsible for the coordination and management of the project and will monitor compliance with Work Plans as the basis for project execution. WWF will coordinate work with other institutions collaborating on this project, as IIAP, UASPNN, and will be the sole project manager. WWF's capacity for project implementation was assessed using UNDP's CSO Capacity Assessment Tool; the outcome of this evaluation classifies WWF as a highly capable implementation partner. The details of this assessment are included in Annex 8.5.

155. The Executive Director of WWF will serve as the Project Director. He/she will be assigned to provide general project oversight to the project and will represent the interest of the GoC during project implementation. In addition, a National Institutional Coordinator will be responsible for coordinating the interaction between the Project Management Unit (PMU) and WWF, and other national institutions. The duration of the project will be five (5) years.

5.1. UNDP support services

156. The UNDP CO will provide support to the Project Coordinator in the administration and management of the project, as well as provide technical assistance, as required by the needs of the project. The project will support an Administrative/Finance Assistant position to provide direct day-to-day project implementation. The UNDP Colombia Environment and Sustainable Development Officer, Finance Officer, Procurement Officer, and M&E Officer will provide technical, financial, administrative, and management support to the project as is required. Additional support roles will be undertaken by the UNDP Regional Bureau (RBLAC) and the Regional UNDP/GEF Offices.

157. Direct transfers of cash will be used as payment to facilitate timely project implementation.

158. WWF maintain the rights to set rates for the activities associated with the project as mileage, travel grants in the country (per diem), consulting fees, etc. in regard to staff hired by the project. However, these rates shall not exceed the UNDP internal costs.

159. The project will be managed by WWF based on UNDP´s principles of ethics and transparency. Taking these principles into account, WWF should prepare, during the first month of the project implementation, a manual of procedures in cooperation with the UNDP CO that will apply to the execution of this project. Every six (6) months, the project coordinator must inform to UNDP any updates or changes made to the manual. UNDP should review and approve the proposed changes.

5.2. Collaborative arrangements with related projects

160. Steps will be taken by the project's Steering Committee to promote the interaction between the implementation team and Project Coordinators who are managing related projects and ensure the coordination and synchronization of efforts as well as promote cross-fertilization, where possible. Collaborative mechanisms with specific projects were outlined in section 2.3. Design principles and strategic considerations of this Project Document.

5.3. Inputs to be provided by all partners

161. The direct execution of project activities is expected to be carried out through the PMU, which will be physically located within WWF's headquarters in Colombia. Oversight of the PMU will be a function of the Project Director.

162. **Other institutional arrangements**. Since the project has two levels of intervention is necessary that other entities responsible for the implementation and development of the project, and therefore, must mediate institutional partnerships. In this vein, the IIAP is the body responsible for coordinating with WWF actions and activities under Component 2 of the project. Also, the UASPNN will be responsible for the activities referred to national PAs established in the Outcome 2.4 regarding PA management. They may also develop strategic partnerships between WWF regional environmental authorities and community councils, indigenous reserves, among others.

5.4 Audit arrangements

163. The GoC / WWF, through SBAA signed, is responsible for development projects assisted by the UNDP and the achievement of its objectives as described in relevant project documents, thus maintaining its own accounting system needed to justify the expenditure for UNDP or donor partners. UNDP Financial regulations require that any project is audited at least once in the life of the project, but depending on the amount can be audited on an annual basis and / or in any fiscal year.

164. The project will be audited in accordance with the UNDP Financial Regulations and Rules and applicable audit policies. These rules apply regardless of whether other audits are performed by competent public authorities themselves or by independent auditors engaged for the purpose.

165. The GoC / WWF will provide the Resident Representative with certified periodic financial statements in relation to the disbursement status of UNDP (including GEF) as it has cash transfers in accordance with the procedures established the programming and Finance manuals. A qualified business auditing firm hired by UNDP CO will perform annual independent audits; the project should allocate resources for this requirement.

5.5. Agreement on intellectual property rights and use of logo on the project's deliverables

166. In order to accord proper acknowledgement to GEF and UNDP for providing funding, the GEF and UNDP logos should appear on all relevant project publications and project hardware, among other items. Any citation on publications regarding projects funded by UNDP and GEF should also accord proper acknowledgment to both UNDP and GEF.

167. In accordance with standard UNDP procedures, all resources and equipment gained through project support remain the property of UNDP until project closure, at which time these resources will be transferred to WWF. The Project Director will supervise the correct use and maintenance of these resources and equipment.

5.6.[52] Roles and responsibilities of the parties involved in project management

168. WWF will establish a PMU responsible for directing, supervising, and coordinating project implementation. The established PMU will be hosted by WWF and supported by its technical and administrative staff and its network of biodiversity and PA experts.

169. For the creation of the PMU, WWF will ensure the recruitment of basic equipment. This team should have at least one project coordinator, a technical assistant and administrative assistant, according to the terms of reference set out in Annex 8.2. This team will travel expenses needed to prioritized areas in the project to attend meetings required of the project. Additionally, this team will be responsible for monitoring and evaluating (M & E) project. WWF will provide overall project supervision, as well as political, technical, logistical, and administrative support for the successful implementation of the project, following the guidelines of UNDP and GEF.

170. The Steering Committee (SC) is the group responsible for making management decisions for the project by consensus when guidance is required by the Project Coordinator. The SC will be composed of the WWF (Executive Director), the UNDP's Resident Representative or his/her delegates, and representatves form the MADS and IIAP. The SC will meet once every six months; however, additional meetings may be scheduled based on the project's needs. The Project Director and the UNDP CO will be responsible for convening and planning the SC meetings. Responsibilities of the SC include making recommendations for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability SC decisions should be made in accordance with standards that ensure development results, best value for the money, fairness, integrity, transparency, and effective international competition. If the consensus is not reached within the CD, the final decision will correspond to UNDP program officer.

171. The SC is consulted by the Project Coordinator to make decisions when the Project Coordinator's tolerances (normally in terms of time and budget) have been exceeded (flexibility). Based on the approved Annual Work Plan (AWP), the SC may review and approve project quarterly plans when required and authorize any major departure from these agreed-upon quarterly plans. The SC is the authority that signs off on the completion of each quarterly plan and authorizes the start of the next quarterly plan. It ensures that required resources are committed and arbitrates any conflicts within the project or negotiates a solution to any problems between the project and external entities.

168. A Technical Committee (TC) will be established for the overall monitoring of the project, which shall also functions as Project Assurance. The CT shall meet once every three months or as needed. The CT shall be composed of the Project Coordinator, WWF (The technical delegate responsibility), MADS (one representative of the responsible technical area), UASPNN (a representative of the responsible technical area), IIAP (a representative of the responsible technical area), and UNDP. However, they may be invited representatives of other institutions to participate in the CT, according to the agenda and topics previously scheduled.

169. The TC will provide strategic guidance to the project and assess the added value of the project. TC responsibilities include review of the project outcomes according to the reports of the Project Coordinator, and overseeing the timely implementation of project activities. The TC will be responsible for approving work plans and quarterly disbursements, according to the Annual Work Plan approved by the SC. Likewise, the TC should monitor the achievement of quarterly targets and monitoring implementation of the quarterly disbursements. Should promote administrative efficiency and be the guarantor of the project activities and their outputs follow the highest standards, providing guidance to the Project Director or the SC to support decision -making, and request that the project team to implement corrective action when necessary. WWF will provide overall project

[52] The implementation scheme (**Figure 9**) was defined after completing the *CSO Capacity Assessment Tool.*

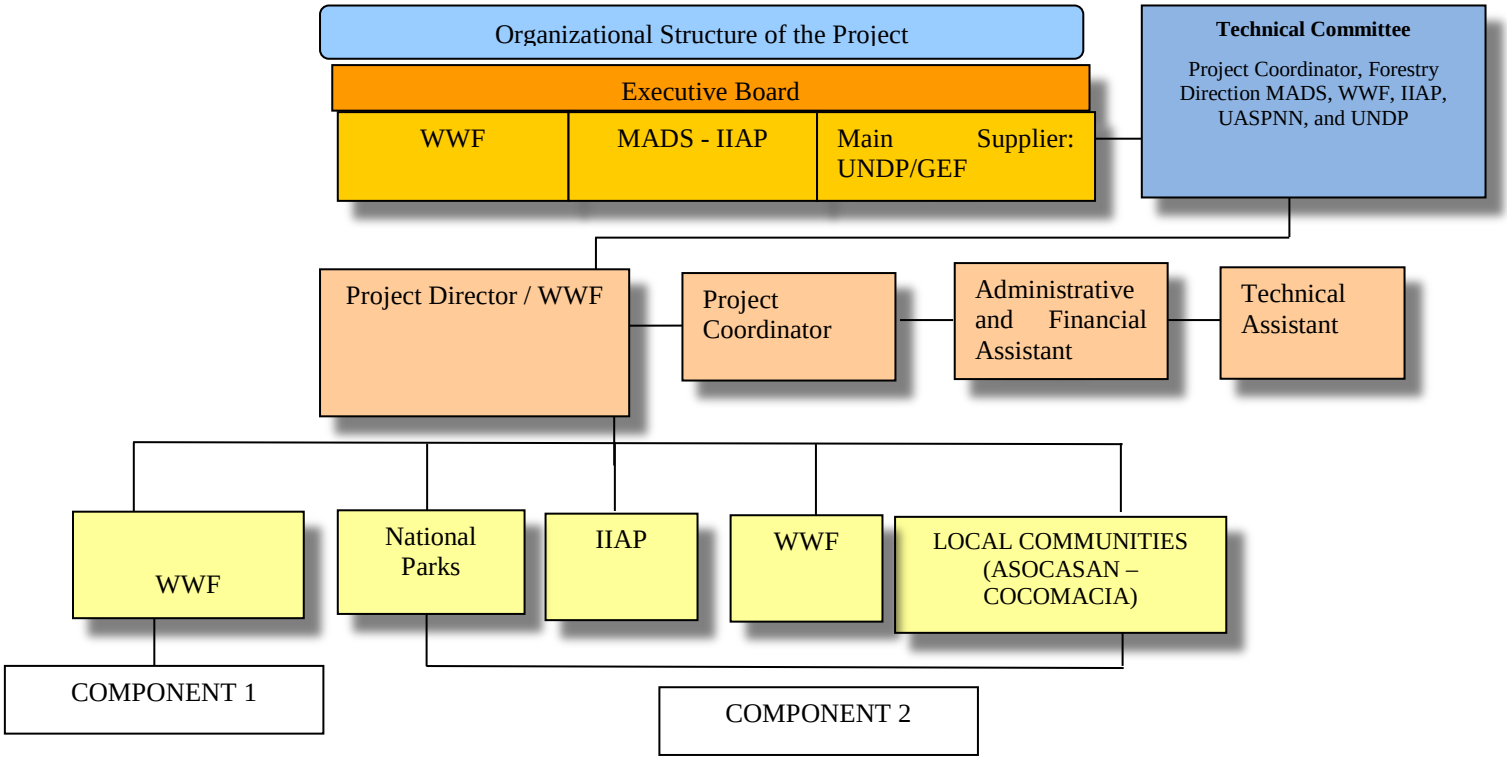
supervision and the political, technical, logistical, and administrative support for the successful implementation of the project following the guidelines of UNDP and GEF.

170. The **Project Coordinator** will be contracted by WWF following the principles of transparency and equal opportunities for everybody, and will be financially supported by project funds. WWF will agree the terms of reference of the Project Coordinator with the Environmental Programme Officer UNDP and UNDP should participate in the selection process. Terms of Reference for the Project Coordinator are included in Annex 8.2 of this Project Document.

171. The Project Coordinator has the authority to run the project on behalf of the Implementing Partner within the constraints/tolerances laid down by the SC. The Project Coordinator's prime responsibility is to ensure that the project delivers the outputs specified in this Project Document, to the required standards of quality and within the specified constraints of time and cost.

172. **Project Assurance**: Project assurance is the responsibility of each SC member. The project assurance role supports the SC by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management and that milestones are achieved. Project assurance is independent of the Project Coordinator; therefore, the SC cannot delegate any of its assurance responsibilities to the Project Coordinator. The TC will be the guarantor of the project.

Figure 9 Organizational Structure of the Project



6. Monitoring Framework and Evaluation

173. Project M&E will be conducted in accordance with the established UNDP and GEF procedures and will be provided by the project team and the UNDP-CO with support from the UNDP/GEF RCU in Panama City. The Project Results Framework in Section 3 provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes an inception report, project

implementation reviews, quarterly and annual review reports, mid-term and final evaluations, and audits. The following sections outline the principle components of the M&E plan and indicative cost estimates related to M&E activities. The project's M&E plan will be presented and finalized in the Project Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

6.1. Project Inception Phase

174. A **Project Inception Workshop** (IW) will be held within the first three (3) months of project start-up with the full project team, relevant GoC counterparts, co-financing partners, the UNDP-CO, and representation from the UNDP-GEF RCU, as well as UNDP-GEF headquarters as appropriate.

175. A fundamental objective of this IW will be to help the project team to understand and take ownership of the project's goal and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the Project Results Framework, GEF Tracking Tool (BD-1 and BD-2), and UNDP's ESSP. This will include reviewing the results framework (indicators, means of verification, and assumptions), reviewing the appropriate next steps for environmental and social assessment and management, imparting additional detail as needed, and on the basis of this exercise, finalizing the AWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

176. Additionally, the purpose and objective of the IW will be to: a) introduce project staff to the UNDP-GEF team that will support the project during its implementation, namely the CO and responsible RCU staff; b) detail the roles, support services, and complementary responsibilities of UNDP-CO and RCU staff in relation to the project team; c) provide a detailed overview of UNDP-GEF reporting and M&E requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), as well as Mid-term and Final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project-related budgetary planning, budget reviews including arrangements for annual audit, and mandatory budget re-phasings.

177. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines and conflict resolution mechanisms. The Terms of Reference (ToRs) for project staff and decision-making structures will be discussed, as needed, in order to clarify each party's responsibilities during the project's implementation phase. The IW will also be used to plan and schedule the Tripartite Committee Reviews

6.2. Monitoring responsibilities and events

178. A detailed schedule of project review meetings will be developed by the project management in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: a) tentative timeframes for Tripartite Committee (TPC) Reviews, Steering Committee (or relevant advisory and/or coordination mechanisms); and b) project-related M&E activities.

179. **Day-to-day monitoring** of implementation progress will be the responsibility of the PC based on the project's AWP and its indicators. The PC will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The PC will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the IW with support from UNDP-CO and assisted by the UNDP-GEF RCU. Specific targets for the first-year implementation progress indicators together with their means of verification will be developed at this workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the AWP. Targets and indicators for subsequent years will be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

180. Measurement of impact indicators related to global benefits will occur according to the schedules defined through specific studies that are to form part of the project's activities and specified in the Project Results Framework.

181. **Periodic monitoring** of implementation progress will be undertaken by the UNDP CO through quarterly meetings with the project implementation team, or more frequently as deemed necessary. This will allow parties to take stock of and to troubleshoot any problems pertaining to the project in a timely fashion to ensure the timely implementation of project activities. The UNDP CO and UNDP-GEF RCU, as appropriate, will conduct yearly visits to the project's field sites, or more often based on an agreed upon schedule to be detailed in the project's Inception Report and AWPs to assess first-hand project progress. Any other member of the Steering Committee can also take part in these trips, as decided by the Steering Committee. A Field Visit Report will be prepared by the UNDP CO and circulated no less than one month after the visit to the project team, all Steering Committee members, and UNDP-GEF.

182. **Annual monitoring** will occur through the Tripartite Committee (TPC) Reviews. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to TPC review at least once every year. The first such meeting will be held within the first twelve (12) months of the start of full implementation. The project proponent will prepare an APR and submit it to UNDP CO and the UNDP-GEF regional office at least two weeks prior to the TPC for review and comments.

183. The APR will be used as one of the basic documents for discussions in the TPC. The PC will present the APR to the TPC, highlighting policy issues and recommendations for the decision of the TPC participants. The PC will also inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The TPC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the IW, based on delivery rates and qualitative assessments of achievements of outputs.

184. The **Terminal TPC Review** is held in the last month of project operations. The PC is responsible for preparing the Terminal Report and submitting it to UNDP-CO and to UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the TPC meeting in order to allow review, and will serve as the basis for discussions in the TPC meeting. The terminal TPC review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learned can be captured to feed into other projects being implemented.

6.3. Project Monitoring Reporting

185. The PC, in conjunction with the UNDP-GEF extended team, will be responsible for the preparation and submission of the following reports that form part of the monitoring process and that are mandatory.

186. A **Project Inception Report** (IR) will be prepared immediately following the IW. It will include a detailed First Year/AWP divided in quarterly timeframes detailing the activities and progress indicators that will guide implementation during the first year of the project. This work plan will include the dates of specific field visits, support missions from the UNDP CO or the RCU or consultants, as well as timeframes for meetings of the project's decision-making structures. The IR will also include the detailed project budget for the first full year of implementation, prepared on the basis of the AWP, and including any M&E requirements to effectively measure project performance during the targeted 12-month timeframe. The IR will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions, and feedback mechanisms of project-related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the IR will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to the IR's circulation, the UNDP CO and UNDP-GEF's RCU will review the document.

187. The **Annual Project Report** (APR) is a UNDP requirement and part of UNDP CO central oversight, monitoring, and project management. It is a self-assessment report by the project management to the CO and provides input to the country office reporting process and the Results-Oriented Annual Report (ROAR), as well as

forming a key input to the TPC Review. An APR will be prepared on an annual basis prior to the TPC review, to reflect progress achieved in meeting the project's AWP and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The format of the APR is flexible but should include the following sections: a) project risks, issues, and adaptive management; b) project progress against pre-defined indicators and targets, c) outcome performance; and d) lessons learned and best practices.

188. The **Project Implementation Review** (PIR) is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for one year, a PIR must be completed by the CO together with the project management. The PIR can be prepared any time during the year and ideally prior to the TPC review. The PIR should then be discussed in the TPC meeting so that the result would be a PIR that has been agreed upon by the project, the Implementing Partner, UNDP CO, and the RCU in Panama. The individual PIRs are collected, reviewed, and analyzed by the RCU prior to sending them to the focal area clusters at the UNDP-GEF headquarters. In light of the similarities of both APR and PIR, UNDP-GEF has prepared a harmonized format for reference.

189. **Quarterly Progress Reports** outlining main updates in project progress will be provided quarterly to the local UNDP CO and the UNDP-GEF RCU by the project team. Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform and the risk log should be regularly updated in ATLAS based on the initial risk analysis included in Annex 8.1.

190. **Specific Thematic Reports** focusing on specific issues or areas of activity will be prepared by the project team when requested by UNDP, UNDP-GEF, or the Implementing Partner. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

191. A **Project Terminal Report** will be prepared by the project team during the last three (3) months of the project. This comprehensive report will summarize all activities, achievements, and outputs of the project; lessons learned; objectives met or not achieved; structures and systems implemented, etc.; and will be the definitive statement of the project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's activities.

192. **Technical Reports** are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List detailing the technical reports that are expected to be prepared on key areas of activity during the course of the project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive and specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national, and international levels. Technical Reports have a broader function and the frequency and nature is project-specific.

193. **Project Publications** will form a key method of crystallizing and disseminating the results and achievements of the project. These publications may be scientific or informational texts on the activities and achievements of the project in the form of journal articles or multimedia publications. These publications can be based on Technical Reports, depending upon the relevance and scientific worth of these reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and (in consultation with UNDP, the GoC, and other relevant stakeholder groups) will also plan and produce these publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

6.4. Independent Evaluation

194. The project will be subjected to at least two independent external evaluations as follows:

195. An independent **Mid-Term Evaluation** will be undertaken at exactly the mid-point of the project lifetime. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, ToRs, and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The ToRs for this Mid-Term Evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF RCU. The management response of the evaluation will be uploaded to the UNDP corporate systems, in particular the UNDP Evaluation Resource Center (ERC). All GEF Tracking Tools for the project will also be completed during the mid-term evaluation cycle.

196. An independent **Final Evaluation** will take place three months prior to the terminal Steering Committee meeting, and will focus on the same issues as the Mid-Term Evaluation. The Final Evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP ERC. The ToRs for this evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF RCU. All GEF Tracking Tools for the project will also be completed during the final evaluation.

6.5. Audit Clause

197. The project will be audited in accordance with the UNDP Financial Regulations and Rules and applicable audit policies.

6.6. Learning and knowledge sharing

198. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition, the project will participate, as relevant and appropriate, in UNDP-GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP-GEF RCU has established an electronic platform for sharing lessons between the project managers. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identify and analyzing lessons learned is an ongoing process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every twelve (12) months. UNDP-GEF shall provide a format and assist the project team in categorizing, documenting, and reporting on lessons learned.

Table 17. ***M&E work plan and budget***

Type of M&E activity	Responsible Parties	Budget US$*	Time frame
Inception Workshop	• Project Coordinator • UNDP CO • UNDP GEF	4,000 (GEF) 2,000 (COF)	Within first two months of project start-up
Inception Report	• Project Team • UNDP CO	None	Immediately following IW
Measurement of Means of Verification of project	• UNDP GEF Regional Technical Advisor/Project Coordinator	To be determined during the initial phase of	Start, mid-point, and end of project

results	will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	implementation of the project and the IW.	
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	• Oversight by Project Coordinator • Project Team	No separate M&E cost: to be absorbed within salary and travel costs of project staff	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	• Project Coordinator and Team • UNDP-CO • UNDP-GEF	None	Annually
Tripartite Committee Reviews and Reports	• GoC counterparts • UNDP CO • UNDP GEF RCU	None	Annually, upon receipt of APR
Steering Committee/Board Meetings	• Project Coordinator • UNCP-CO • GoC representatives	2,500 (GEF) 4,000 (CoF) (1,300 per year)	Two times per year
Quarterly progress reports	• Project Coordinator and Team	None	Quarterly
Technical reports	• Project Coordinator and Team • Hired consultants as needed	5,000 (GEF) 4,000 (CoF)	To be determined by Project Team and UNDP-CO
Mid-term Evaluation	• Project Coordinator and Team • UNDP- CO • UNDP-GEF RCU • External Consultants (i.e., evaluation team)	44,000 (GEF) 20,000 (CoF)	At the mid-point of project implementation
Final Evaluation	• Project Coordinator and Team • UNDP- CO • UNDP-GEF RCU • External Consultants (i.e. evaluation team)	54,500 (GEF) 25,000 (CoF)	At least three months before the end of project implementation
Terminal Report	• Project Team • UNDP-CO	2,500 (GEF) 2,000 (CoF)	At least three months before the end of the project
Lessons learned	• Project Coordinator and Team • UNDP-GEF RCU (suggested formats for documenting best practices, etc.)	7,500 (GEF) 4,000 (CoF) (2,300 per year)	Yearly
Audit	• UNDP-CO • Project Coordinator and Team • Auditors	29,250 (GEF) (5,850 per year)	Yearly
Visits to field sites	• UNDP-CO • UNDP-GEF RCU (as appropriate) • GoC representatives	No separate M&E cost: paid from IA fees and operational budget	Yearly
TOTAL INDICATIVE COST (*Excluding project team staff time and UNDP staff and travel expenses)		GEF 149,250 CoF 61,000 **Total 210,250**	

7. **Legal Context**

199. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement (SBAA) between the GoC and the UNDP signed by the parties in 1974 and approved by Law 62, 1973. The host country implementing agency shall, for the purpose of the SBAA, refer to the government co-operating agency described in that Agreement.

200. The UNDP Resident Representative in Colombia is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes: a) revision of, or addition to, any of the annexes to the Project Document; b) revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation; c) mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and d) inclusion of additional annexes and attachments only as set out here in this Project Document.

201. This document, together with the CPAP, which was signed by the GoC and UNDP and is incorporated by reference, constitutes a Project Document as referred to in the SBAA. All CPAP provisions apply to this document.

202. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner.

203. The Implementing Partner shall:

a) put into place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried out;

b) assume all risks and liabilities related to the Implementing Partner's security and the full implementation of the security plan.

204. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required herein shall be deemed a breach of this agreement.

205. The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, and that the recipients of any amounts provided by UNDP herein do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

206. **Changes in Exchange Rates.** Eventual changes in exchange rates due to the differences in the rates will be increased or decreased in the corresponding value of U.S. dollars (USD) for each deposit, in accordance with Chapter 5, rule 5.04 of the UNDP Financing Manual. The adjustment will be made through budgetary revision.

207. **Anticipation of Changes in Exchange Rates.** On a quarterly basis, the UNDP, jointly with the Project Director, will perform an analysis of the how much the available budget can cover and of the available project funds (as a result of eventual variations in exchange rates) in order to adjust the work plans.

208. In order for the UNDP to account for the income from cost-sharing contributions for the month during which they were deposited into the UNDP account, the contributing institution shall immediately send a formal communication to the UNDP office detailing that the deposit has been made, with the bank deposit slip attached.

209. **Equipment Transfer.** The transfer of equipment acquired through the project herein is subject to the formal agreement by the executing body that said equipment will be used in service of the project and its purposes, until

the finalization of project activities. The Project Director will be responsible for the placement and use of the equipment obtained through the project.

210. **Completion of the Project.** The present project will end: 1) By expiration of the duration of time anticipated without any extension; 2) By mutual agreement of the parties; 3) By completion of its objective; 4) By force majeure.

Communication and visibility requirements

211. The Directives about the UNDP Institutional Image must be fully complied with. They may be accessed at: http://intra.undp.org/coa/branding.shtml. The specific directives about use of the UNDP logo may be accessed at: http://intra.undp.org/branding/useOfLogo.html. Among other things, these directives describe how and when the UNDP logo may be used, as well as the form in which the logos of the UNDP project donors may be used. To avoid any doubt as to when the use of the logo is necessary, the UNDP logo may be used together with the GEF logo. The GEF logo can be accessed at: www.thegef.org/GEF/GEF_logo. The UNDP logo can be accessed at: http://intra.undp.org/coa/branding.shtml.

212. The Communication and Visibility Directives of the GEF must also be fully complied with (the "GEF Directives"). These directives may be accessed at:www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Among other things, the GEF directives describe how and when the GEF logo may be used in publications of the project, vehicles, supplies, and equipment of another project. The GEF directives also describe other promotion requirements of the GEF with regard to press requirements, press conferences, press visits, government official visits, productions, and other promotional articles.

213. When other institutions and project partners have lent support through co-financing, their policies and requirements for their brand should be applied in a similar manner.

8. Annexes

8.1.Risk Analysis

Project Title: Conservation of biodiversity in landscapes impacted by mining in the Chocó Biogeographic Region	**Award ID:** 00077977	**Date:** December 13, 2013

9.

	Description	Date Identified	Type	Probability and Impact	Countermeasures/ Management Response	Owner	Submitted, Updated By	Last Update	Status
1	The proposed legal and policy reforms are not achieved in a timely manner	During the CEO ER	Political	P=3 I=4	The proposed legal and policy reforms will happen within a political environment that includes the Colombian "peace talks," which are currently underway, and presidential and congressional elections in 2014. These events may include structural policy and legal reforms that slow down the delivery of the related legal and policy outputs despite the current support from environmental and mining authorities. The project will maintain all interested existing and future authorities informed about the project's objectives and progress, and will incorporate the necessary follow-up activities in the annual plans to ensure that the results of the "peace talks" and the presidential/congressional	MME, MADS, UNDP, and WWF	UNDP	During the CEO ER	Remains

					elections are incorporated into project planning and management.				
2	Government policies and programs will support unrestrained mining development in the biogeographic region of the Chocó as global prices for gold, silver, and platinum rise	During the PIF	Political	P=4 I=3	Government support for amending the national mining policy and associated policy instruments is essential for the project's success. The government has expressed its commitment to addressing the impacts of mining on BD, leading to the development of this initiative. To garner the legislative support necessary to review and approve new laws and incorporate environmental considerations into the policy and legislative agenda, should this commitment waver, the project will also draw upon the advocacy skills of the project's partners, NGOs, and public research organizations.	MME, MADS and UNDP	UNDP	During the CEO ER	Tends to increase
3	Non-compliance of companies with new policy prescriptions, aimed at safeguarding BD	During the PIF	Institutional	P = 4 I = 4	The project will support monitoring compliance of the commitments and conditions of the environmental licenses, and will support the environmental authorities in their monitoring and enforcement processes. The project will promote coordination between environmental and mining	ANM, CARs, Antioquias´s Governor Authority	UNDP	During the CEO ER	Remains

					authorities in such a way that the approval of mining titles for companies that do not comply with the environmental safeguards is avoided. The project will develop inspection and tracking protocols, which will be adopted by both environmental and mining authorities with the purpose of articulating information for decision-making.				
4	Insecurity and violence in the Chocó impede project operation and execution	During the PIF	Social	P = 3 I = 4	For the selection of areas where the project will be implemented (Viga del Fuerte, Murindó, Frontino, Bojayá, Carmen del Darien, Rio Sucio, Tadó, San Jose del Palmar, and Buenaventura), safety conditions were considered as a criterion and the UNDP security group was consulted. If the selected areas demonstrate unsafe conditions, the project will re-focus their efforts to other areas of Chocó biogeographic region.	Public force	UNDP	During the CEO ER	Remains
5	Resistance in local communities to the project due to distrust of government and high gold, silver, and platinum prices	During the PIF	Political and Social	P = 3 I = 4	Communities and other stakeholders will be participating in project design, planning, implementation, and evaluation processes starting with the PPG phase. Communities and other key	ANM, MME, MADS, WWF	UNDP	During the CEO ER	Remains

					stakeholders participated in the project design process, and all local stakeholder groups related to the project were properly identified and engaged in the project. Local communities will actively participate in the implementation of the project, both in the capacity-building, as well as in the implementation of a sustainable use management system for NTFP and in the development of land management/ sustainable use plans for Indigenous Reserves/Afro-Colombian territories.				
6	The necessary permits for using NTFP are not granted by the environmental agency in a timely manner.	During the CEO ER	Institutional	P = 3 I = 4	The project will promote capacity-building of local stakeholders for the design and implementation of sustainable productive initiatives, as well as capacity-building of environmental authorities for enforcement and monitoring of said initiatives. The capacity of local communities to comply with standards will also be strengthened.	WWF, CARs	UNDP	During the CEO ER	Remains
7	There is uncertainty due to constant changes in the national, regional, and local governments to adopt the tools designed	During the CEO ER	Political	P = 5 I = 3	The project will promote inter-institutional mechanisms for cooperation and information sharing, thus guaranteeing that	WWF, UNDP	UNDP	During the CEO ER	Remains

	within the project framework.				government agencies are informed about the project (progress and achievements, and maintaining their commitment with the project during its implementation. Officials will be invited to participate in the implementation and the monitoring and evaluation processes of the project.				
8	The frequent rotation of officials and contractors of the participating entities in the project makes timely implementation of planning and training activities difficult.	During the CEO ER	Institutional	P = 4 I = 4	The participation of the personnel who previously participated in the related formulation and processes will be encouraged. Events designed to familiarize personnel with the project processes will be encouraged for new officials in order for them to appropriate the tools created by the project.	MADS, MME, ANM, ANLA, CARs, Local authorities	UNDP	During the CEO ER	Remains
9	Climate change negatively impacts BD in the Chocó biogeographic region.	During the CEO ER	Environmental	P = 3 I = 4	The project will implement BD conservation actions in important areas of tropical rainforest that remain through traditional in situ conservation schemes in public PAs and non-traditional actions through schemes such as REDD+, as well as sustainable management of the collective territories. The establishment of new PAs will take into account climate change projections so that landscape and boundary designs	WWF, UASPNN	UNDP	During the CEO ER	Remains

					contribute to mitigating potential impacts on BD, including corridors to facilitate species movement and provide refugia in a changing climate.				
9	Dependency on the training to be delivered by the project for the achievement of the expected outcomes	During the CEO E / R	Institutional	P = 3 I = 3	Training will begin early in the implementation phase of the project to ensure that the required skills and knowledge are in place in a timely manner. The project will monitor the use and incorporation of knowledge gained by the different stakeholders using development capacity indicators (UNDP Development Capacity Scorecard). The UNDP's in-country and regional technical staff will provide support to project implementation. Finally, the project will be executed by the WWF, which has extensive experience in project implementation and will make use of its wide network of national and international BD and social experts for additional project support.	WWF, UNDP	UNDP	During the CEO E / R	Remains

8.2.Terms of Reference for Key Personnel

The following are the indicative ToRs for the project management staff. The PIU will be staffed by a full-time PC, a full-time Technical Assistant, and a full-time Project Administrator/Finance Assistant, and all of whom will be nationally-recruited positions. ToRs for these positions will be further discussed with UNDP´s CO and will be fine-tuned during the IW so that roles and responsibilities and UNDP GEF reporting procedures are clearly defined and understood. Also, during the IW the ToRs for specific consultants and sub-contractors will be fully discussed and, for those consultancies to be undertaken during the first six months of the project, full ToRs will be drafted and selection and hiring procedures will be defined.

Project Coordinator (PC)

The UNDP CO will hire the PC to carry out the duties specified below, and to provide further technical assistance as required by the project team to fulfill the objectives of the project. He/she will be responsible for ensuring that the project meets its obligations to the GEF and the UNDP, with particular regard to the management aspects of the project, including supervision of staff, serving as stakeholder liaison, implementation of activities, and reporting. The PC will be responsible for the day-to-day management of project activities and the delivery of its outputs. The PC will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. The PC will report to the UNDP Project Officer and will be responsible for the following tasks:

Tasks:

- Prepare detailed work plan and budget under the guidance of the SC and UNDP;
- Make recommendations for modifications to the project budget and, where relevant, submit proposals for budget revisions to the SC, and UNDP;
- Facilitate project planning and decision-making sessions;
- Organize the contracting of consultants and experts for the project, including preparing ToRs for all technical assistance required, preparation of an action plan for each consultant and expert, supervising their work, and reporting to the UNDP Project Officer;
- Provide technical guidance and oversight for all project activities;
- Oversee the progress of the project components conducted by local and international experts, consultants, and cooperating partners;
- Coordinate and oversee the preparation of all outputs of the project;
- Foster, establish, and maintain links with other related national and international programs and national projects, including information dissemination through media such as web page actualization, etc.;
- Organize SC meetings at least once every semester as well as annual and final review meetings as required by UNDP, and act as the secretary of the SC;
- Coordinate and report the work of all stakeholders under the guidance of UNDP;
- Prepare PIRs/APRs in the language required by the GEF and the UNDP´s CO and attend annual review meetings;
- Ensure that all relevant information is made available in a timely fashion to UNDP regarding activities carried out nationally, including private and public sector activities, which impact the project;
- Prepare and submit quarterly progress and financial reports to UNDP as required, following all UNDP quality management system and internal administrative process;
- Coordinate and participate in M&E exercises to appraise project success and make recommendations for modifications to the project;
- Prepare and submit technical concepts and requirements about the project requested by UNDP, the GoC, or other external entities;

- Perform other duties related to the project in order to achieve its strategic objectives;
- Ensure the project utilizes best practices and experiences from similar projects;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project activities are carried out on schedule and within budget to achieve the project outputs;
- Solve all scientific and administrative issues that might arise during the project.

Outputs:

- Detailed work plans indicating dates for deliverables and budget;
- Documents required by the control management system of UNDP;
- ToRs and action plan of the staff and monitoring reports;
- List of names of potential advisors and collaborators and potential institutional links with other related national and international programs and national projects;
- Quarterly reports and financial reports on the consultant's activities, all stakeholders' work, and progress of the project to be presented to UNDP (in the format specified by UNDP);
- A final report that summarizes the work carried out by consultants and stakeholders during the period of the project, as well as the status of the project outputs at the end of the project;
- Minutes of meetings and/or consultation processes;
- Yearly PIRs/APRs;
- Adaptive management of project.

All documents are to be submitted to the UNDP Project Officer and in MS Word and in hard copy.

Qualifications (indicative):

- A graduate academic degree in areas relevant to the project (e.g., SFM, SLM, and BD conservation);
- Minimum 8 years of experience in project management with at least 2 years of experience in SFM, SLM, or BD conservation;
- Experience facilitating consultative processes, preferably in the field of natural resource management;
- Proven ability to promote cooperation between and negotiate with a range of stakeholders, and to organize and coordinate multi-disciplinary teams;
- Strong leadership and team-building skills;
- Self-motivated and ability to work under the pressure;
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives;
- Familiarity with logical frameworks and strategic planning;
- Strong computer skills;
- Flexible and willing to travel as required;
- Excellent communication and writing skills in Spanish and English;
- Previous experience working with a GEF-supported project is considered an asset.

Technical Assistant

This person will provide technical assistance required to fulfill the project objectives. He or she will support the project coordinator in all project management activities. This position has the following responsibilities:

Task:

-Providing general technical support to the project
-Supporting compliance to the duties scheduled in national protected areas for the development of strategies.
-Support and coordinate multiple use plans.
-Coordinate, along with the coordinator, early REDD+ initiatives.
-Support the activities of the restoration pilot.
-Support and provide advisory to the project coordination in all technical aspects of the project.

Qualifications (indicative):

-Bachelor's degree in natural sciences, preferably with specialization or Masters in conservation, biological sciences, or related fields.
-At least two years of experience in the design or implementation of projects or strategies for biodiversity conservation.
-Experience in rather active projects in rural areas or natural resource management
-Specific experience in environmental projects and public policy analysis, sectorial as well as environmental.
-Experience in interinstitutional work
-Experience in projects that involve working closely with communities
-Excellent interpersonal skills.
-Written and oral medication skills; preferably with an advanced knowledge of the English language.
-Knowledge and experience using Office (Word, Outlook, Power Point and Excel).

Administrative and Financial Assistant of the Project

The Project Administrator/Finance Assistant is responsible for the financial and administrative management of the project activities and assists in the preparation of quarterly and annual work plans and progress reports for review and monitoring by UNDP. The Project Administrator/Finance Assistant will have the following responsibilities:

- Responsible for providing general financial and administrative support to the project;
- Take own initiative and perform daily work in compliance with annual work schedules;
- Assist project management in performing budget cycle: planning, preparation, revisions, and budget execution;
- Provide assistance to partner agencies involved in project activities, performing and monitoring financial aspects to ensure compliance with budgeted costs in line with UNDP policies and procedures;
- Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized;
- Assist project team in drafting quarterly and yearly project progress reports concerning financial issues;
- Ensure that UNDP procurement rules are followed during procurement activities that are carried out by the project and maintain responsibility for the inventory of the project assets;
- Perform preparatory work for mandatory and general budget revisions, annual physical inventory and auditing, and assist external evaluators in fulfilling their mission;
- Prepare all outputs in accordance with the UNDP administrative and financial office guidance;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;

- Ensure that all project financial activities are carried out on schedule and within budget to achieve the project outputs;
- Perform all other financial related duties, upon request

Qualifications and skills:
- At least an Associate's Degree in finance, business sciences, or related fields;
- Experience in administrative work, preferably in an international organization or related to project implementation;
- A demonstrated ability in the financial management of development projects and in liaising and cooperating with government officials, NGOs, etc.;
- Self-motivated and ability to work under the pressure;
- Team-oriented, possesses a positive attitude, and works well with others;
- Flexible and willing to travel as required;
- Excellent interpersonal skills;
- Excellent verbal and writing communication skills in Spanish and English;
- Good knowledge of Word, Outlook, Excel, and Internet browsers is required;
- Previous experience working with a GEF-supported project is considered an asset.

8.3.Stakeholder Involvement Plan

Stakeholder Participation during Project Preparation

During the PPG stage of the project, the main stakeholders participated in project planning and design workshops as well as multiple sessions and work meetings, including workshops in the project's prioritized areas. These participatory events included: a) PPG phase inception workshop; and b) a project results framework workshop. Additionally, multiple individual meetings and consultations with key national, regional, and local stakeholders were held during the PPG phase by the project team, UNDP CO, and staff from the MADS and WWF. Descriptions of the PPG phase workshops are presented below.

PPG phase inception workshop: The PPG phase inception workshop took was held November 12-13, 2012, in Bogotá, Colombia. The main objective of the workshop was to ensure the PIF and PPG forms approved by GEF for the project were made familiar to the different stakeholders involved in the process, and to define a work plan for the formulation of the ProDoc. The workshop's specific objectives were: a) to inform about the institutional context and operational base for the project's development; b) to inform about the specific mechanisms and requirements of the PPG stage; c) to present the objectives of the project, including expected outcomes and outputs; d) to coordinate the actions and commitments from all partners involved; and e) to inform about the responsibilities of the consulting team.

Participants in the PPG inception workshop included officials from the MADS, MME, ANLA, ANM, UASPNN, IDEAM, CARs representatives (CODECHOCÓ, CORPONARIÑO), representatives from Antioquia's departmental administration, IIAP, WWF, representative of the regional UNDP/GEF office, officers from the UNDP Colombia program, and the team of consultants for the PPG phase.

Project results framework workshop: The workshop was held June 4-5, 2013, in Bogotá, Colombia. The objectives of this workshop were: a) to define the results framework for the project, including outputs, indicators, baseline information, goals, verification mechanisms, and assumptions; b) to define the preliminary project activities per output; c) to define the budgetary basis of the project, including co-financing; and d) to update the PPG work plan. Participants in this workshop included

officials from the MADS, MME, ANLA, ANM, UASPNN, IDEAM, CODECHOCÓ representatives, representatives from Antioquia's departmental administration, IIAP, WWF, representatives of the regional UNDP/GEF office, UNDP Colombia program officials, and consultants for the PPG stage.

Stakeholder Participation Plan for the Project Implementation Phase

The objectives of the stakeholder participation plan are: a) to clearly identify the basic roles and responsibilities of the main stakeholders of the project; b) to ensure the full awareness of the stakeholders with regard to the progress of the project's development and any obstacles that may arise, and to utilize the experience and skills of these stakeholders to improve the projected actions; and c) to identify key moments within the project's lifecycle during which participation will be most effective. The final objective of the stakeholder's participation plan will be to ensure the long-term sustainability of the project's achievements, based on transparency and effective participation.

Summary of Stakeholder Roles in Project Implementation:

Stakeholders	**Description of Stakeholders' Roles in Project Implementation**
MADS (Ministry of Environment and Sustainable Development)	MADS is the GEF focal point and the public agency responsible for the formulation of national policy related to the environment and renewable natural resources and the establishment of guidelines for land use planning to ensure the sustainable use and management of renewable natural resources and the environment. It will be responsible for the adoption of proposed methodological guidelines and for providing political and legal support to the proposed legal and policy reforms.
MME (Ministry of Mines and Energy)	MME is responsible for formulating and implementing the national policy for the exploration, exploitation, transport, refining, processing, benefit, transformation, and distribution of minerals and hydrocarbons, as well as the policy on generation, transmission, interconnection, distribution, and establishment of technical regulations regarding electric power, the rational use of energy and the development of alternative sources. This Ministry will lead reforms in the Mining Code and will prepare best practices guidelines for restoration of areas degraded by mining.
UNDP	UNDP-Colombia will provide orientation, technical and administrative support, management tools, and theoretical as well as practical knowledge to national and regional institutions involved in project implementation.
UASPNN (Special Administrative Unit of National Natural Parks)	The UASPNN is responsible for the management and administration of the National Parks System and the coordination of the National System of Protected Areas (SINAP). It will be the entity in charge of implementing actions within the prioritized national-level PAs, and a key player in the development becoming that key actor in LMS construction processes in municipalities surrounding those protected areas.
Mining and Energy Planning Unit of the MME	Its purpose is to plan in a comprehensive, clear, permanent, and coordinated manner with public and private entities in the mining and energy sectors, the development and use of energy and mining resources to prepare, release, and disseminate required information on the sectors. It is play a key role in the incorporation of environmental considerations into mining policies.
ANLA (National Environmental Licensing Authority)	ANLA is in charge of projects, works, or activities subject to requirements of environmental licensing, permit, or procedures aimed to ensure compliance with environmental regulations, such a way they contribute to the country's sustainable development. ANLA will support the management with the CARs and will be part of the group of entities targeted for the capacity-strengthening actions to improve enforcement and project implementation. In addition, it will support the articulation of environmental management information systems, granting, and monitoring of licenses and mining rights, providing additional support to

Stakeholders	Description of Stakeholders' Roles in Project Implementation
	decision-making processes.
ANM (National Mining Agency)	ANM aims to achieve efficient and effective administration of mineral resources that are property of the State to promote the sector's productivity and competitiveness to maximize its contribution to the country's sustainable development. Its leadership in articulating mining and environmental information systems will be essential during decision-making, as well as in the participation of monitoring and control processes at the regional level jointly with environmental authorities.
CARs (CORPOURABA, CODECHOCÓ, and CVC)	The CARs will support the articulation of environmental management information systems, monitoring, and control of environmental licenses and mining rights, the formulation of land management plan, including conservation areas, and also land use planning the limitation for the assessment of indirect impact of mining activities in the areas they manage. Likewise, they will actively participate in training and capacitation events, as defined in the project.
Governor's Office of Antioquia	This entity is the highest mining authority in the department of Antioquia, as delegated by the MME, and is in charge of the administration of mineral resources that are property of the government within the department. Its participation in the project will be essential for coordinate actions to reduce the direct and indirect impacts of mining on BD and ecosystem services.
IIAP (Institute for Pacific Environmental Research)	This entity develops scientific and technological research aiming to contribute to the population well-being and development, to preserve the quality of the environment, and to use natural resources sustainably. IIAP will support actions at the regional and local levels for land use and sustainable use management. It will be an executing partner of the project, particularly in Component 2 for the conservation of BD in areas that are highly vulnerable to mining.
NGOs	Local NGOs will promote conservation and sustainable BD use. Most of their activities are consistent with the project's objectives. In the prioritized project area, NGOs like the Espavé Foundation (*Fundación Espavé*) and AMICHOCÓ will provide technical support to communities that are developing initiatives for alternative uses of the forest and its associated resources.
Municipal government offices Offices (Vigía del Fuerte, Frontino, Murindó, Bojayá, Carmén del Darién, Riosucio, Tadó, San José del Palmar, and Buenaventura)	The municipal government offices are local entities responsible for improving the quality of life for the population of their municipalities, by providing access to essential public utilities and promoting agricultural, livestock, and commercial development. Municipal government offices play a pivotal role in the incorporation of BD consideration into the management of land use through the preparation of POTs and EOTs.
OIA (Indigenous Organization of Antioquia)	The OIA is a non-profit entity charged with representing indigenous communities and the department of Antioquia in order to ensure a dignified way of life, the well-being of the community, and the population's cultural survival. It will provide legal and technical support to indigenous communities in the project-related policies in the indigenous reserves.
ASOCASAN (Municipal Community Council of the upper San Juan River basin)	ASOCASAN manages the collective titles held by afro-Colombian communities in the municipality of Tadó where the project will be implemented. These communities have established internal regulations, land use zoning, biocultural guidelines, and are currently preparing an ethnic development plan. The local communities will be the direct beneficiaries of the project with regard to increased local capacity of governmental systems, planning activities, participation tools, REDD+, and others.
COCOMACIA (Municipal Community Council of the Integral Association of	COCOMACIA is orchestrating cooperation and technical support from different institutes to strengthen productive, organizational, and social aspects of BD and forest use and conservation in the region of the Atrato River basin.

Stakeholders	Description of Stakeholders' Roles in Project Implementation
Farmers of the Atrato River basin)	The organization will provide support to local communities in the implementation of sustainable use management system of NTFP and reduced dependence on mining activities
(WWF) World Wide Fund for Nature	WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature. WWF will be the executing entity of the project, in coordination with national, regional, and local agencies; it would also lead Component 1 of the project with regard to the legal, political, environmental, and mining planning frameworks.
USAID (United States Agency for International Development)	USAID supports the efforts of the Colombian government, the private sector, and citizens to improve the living conditions of the vulnerable groups. It also provides options for social and economic development. USAID will support the development of the project through the BIOREDD program, aimed towards BD and ecosystem conservation as well as socially equitable and economically viable activities. USAID currently carries out REDD+ within the area of influence of the project.

Participation mechanisms: Three key phases for stakeholders' participation have been identified for the implementation phase of the project: planning, implementation, and evaluation: planning, implementation, and evaluation. **Project planning** will include annual meetings with key stakeholders including national and local governments, civil society, local communities (indigenous and afro-Colombians communities, and farmers), and co-financers, during which annual goals for each component of the project with established. These annual planning meetings will also serve to specify activities that will be financed through each source of co-financing.

Implementation of the project will be carried out according to annual plans that will be approved by the Steering Committee/Executive Board**,** which comprises: UNDP, MADS, IIAP, and WWF**.** The project director may invite other key stakeholders of the project to participate (for example CARs, municipalities, NGOs, community organizations) to guarantee active participation in complete representatives. Furthermore, key stakeholders will be direct beneficiaries of the project's activities such as training and PA management. The project design has taken into account opinions and points of view from members of communities that have participated in the project's socialization workshops since its PPG stage. This process of socialization and consultation with communities with continue during implementation.

Project evaluation will occur annually with the participation of key stakeholders at the end of each planning year and previous to defining the annual plan for the following year of project implementation. It is emphasized that the monitoring of the project and specific monitoring activities planned as part of the project strategy (Section 2 of this Project Document) will be participatory in nature; these activities will include gender considerations in order to ensure the participation of both women and men and the equitable distribution of benefits and for which specific indicators have been included in the Project Results Framework (Section 3.2 of this Project Document). Also, mid-term and final evaluations will be carried out as part of the project cycle. Due to the independent nature of these evaluations, they will be key moments during the project's life when stakeholders, including the local communities, local organizations, and government, can express their views, concerns, and assess whether the project's outcomes are being achieved, and if necessary, define the course of correction.

8.4. Tracking Tool

The Tracking Tool for BD monitoring and follow-up for the Las Orquídeas NP, Farallones de Cali NP, Tatamá NP, and Munchique NP are available as an attached file to the present document.

8.5.Capacity Analysis of Executors (implementing partners)

This section details the capacity results of the Implementing Partner, which was evaluated using the -CSO capacity assessment tool- for the evaluation of the capacities of organizations of the civil society. The method it values the commitment of the CSO with the beginning of human participative development and democratic government of the PNUD, as well as the capacity of project management of the OSC.

The outcome of this evaluation classifies WWF Colombia an implementation partner of high capacity, so much in the joint and commitment with the beginning of human development of the PNUD, as well as in the project management. WWF has wide experience in planning, supervision and coordination of activities; facilitation of infrastructure and support logistic and suitable management of financial funds. For a better development of the project, WWF one recommends to establish alliances in the region (v.g. Quibdó) in order to facilitate the implement activities and the consolidation of partnerships with the local and community organizations.

Methodology Employed. The UNDP CO utilized the methodology: Tool of Evaluation of the Capacities of Organizations of the Civil Society (CSO capacity assessment tool), which consists of two principal categories: evaluation of the commitment of the OSC with the beginning of human participative development and democratic government of the PNUD; and evaluation of the capacity of project management of the OSC. Every category subdivides in sub-categories, which are qualified in discharge, average and fall. The value of discharge means the major level of capacity. The qualification of every category is resultant of the average of the subcategories, and the global qualification is resultant of the average of both categories.

Implementing Partner: World Wildlife Fund

Evaluation of the commitment of the OSC with the beginning of human participative development and democratic government of the PNUD. High capacity.

Legal condition and precedents: High capacity. WWF achieve with the legal requirements, has a legal capacity and is registered. WWF works for to safeguard the natural world helping people live more sustainably and take action against climate change, and his mission is to stop the degradation of the natural environment of the Earth and to construct a future in which the human being lives in harmony with the nature. WWF, it has existence from 1961, with presence in more than 100 countries. WWF Colombia was created in 1995.

Mandate, policies, and governance: High capacity. The mandate and the nature of the organization do not have ends of profit and he shares the beginning of human development of the PNUD. The mission and WWF's policies are formulated clearly and have a strong role in support in the implementation of the conventions of United Nations and it is employed at alliance with institutions involved. WWF has an organic sharp structure and brings to the Secretariat of Latin America and the Caribbean, with headquarters in Washington DC.
Local and external support: High capacity. The partner of implementation has the aptitude to establish relations of collaboration so much to local as national level. WWF is an independent foundation with headquarters in Switzerland (International WWF), which leads WWF's office network worldwide, including WWF Colombia. He is a member of UICN, an international group of organizations, which there promotes the beginning of the sustainable development and the conservation of the biodiversity. Likewise, it has alliances with regional organizations as CAN, OTCA and agencies of United Nations like UNEP and FAO. On the national level it develops projects with governmental organizations and works with sectors as palm, ranching, mining industry and infrastructure.

Evaluation of the capacity of project management of the OSC. High capacity.
Technical capacity: High capacity. WWF Colombia has the aptitude to execute the project. It achieves wide experience in the implementation of international agreements and of regional, national and local policies. The entity counts with experience in problems of governance, especially in the region of the Choco Biogeographic, with near 20 years of work in alliance with local and community organizations. WWF has a line of robust base information of the eco-regions of The Amazon, The Orinoco, Andes of the North and It hit, and it implements plans of actions in priority landscapes in these eco-regions, together with key stakeholders of different scales (national, regional and local).

•Capacities of management: High capacity. WWF has aptitudes to plan, to supervise and coordinate the activities of the project. WWF Colombia has strategic plan measurable indicators. The strategy of communications is aligned and articulated by the above-mentioned plan. An annual meeting is carried out of planning and other one of evaluation. The audits have found total fulfillment in almost all the cases. Additional, and with base in the project evaluation, they include the partners and beneficiaries to analyze the impact and to do the necessary adjustments.

Administrative Capacity: High capacity. WWF has aptitude to provide infrastructure and logistic support sufficient, as well as to acquire goods, services and works of a transparent and competitive way. It has 3 offices in Colombia, with principal headquarters in Cali, where the Administrative headquarters are located, zone of intervention of the project.
Financial Capacity: High capacity. The budget is prepared annually, for a fiscal year understood between July 1 and June 30 of the following year. The budget is prepared by sufficient detail considering donors and requirements to be the sources for every project. The budget for 2013 was about 7.5 million American dollars. WWF Colombia uses the Program of Accounting Accpac, version 5,3B, that is being used also by other Offices of WWF's Program to bring to the Secretariat of Latin America and the Caribbean.

World Wildlife Fund - WWF

CSO Capacity Assessment Tool
PART I. ASSESSING CSO COMMITMENT TO THE UNDP PRINCIPLES OF PARTICIPATORY HUMAN DEVELOPMENT AND DEMOCRATIC GOVERNANCE

1.1 Legal status and historyDegree of legal articulation and biographical indications. Very low level risk

INDICATOR	AREAS FOR ASSESSMENT	ANSWERS	APPLICABLE DOCUMENTS/TOOLS
1.1.1 Legal status	Is the CSO legally established? Does the CSO comply with all legal requirements of its legal identity and registration?	Yes. WWF is legally established and complies with all requirements of registration law.	Name and name of officers Registration with government or umbrella CSO Legal incorporation documents
1.1.2 History	Date of creation and length in existence Reasons and circumstances for the creation of the CSO Has the CSO evolved in terms of scope and operational activity?	WWF Colombia was established the 28th of August of 1995 through the legal Act 3903 of (Notary 13 Cali). It was amended by the legal Act 1516 of the 31st of August 2004 (Notary 16, Cali). Since then the office has gone from being a project office in the beginning, to a program office	Annual reports Biographical note on CSO; Media kit; Website

		today. WWF came into existence on 29 April 1961, when a small group of passionate and committed individuals signed an international declaration to protect the World´s Wildlife that came to be known as the Morges Manifesto. This apparently simple act laid the foundations for one what has grown into the world's largest independent conservation organization. More then 50 years on, the black and white panda is a well known household symbol in many countries. And the organization itself is lucky enough to have won the backing of more than 5 million people throughout the world, and can count the actions taken by people in support of its efforts into the billions. The organization has evolved in terms of scope focusing at the beginning in the protection of species to a more integrated approach. Currently WWF's mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth.Our vision is to build a future where people live in harmony with nature.	

1.2 Mandate, policies and governance: Compatibility between the goals of the CSO with those of UNDP and a sound governance structure. Low level risk

INDICATOR	AREAS FOR ASSESSMENT		APPLICABLE DOCUMENTS/TOOLS
1.2.1 CSO mandate and policies	Does the CSO share UNDP principles of human development? Does the CSO share similar service lines to UNDP? Is it clear on its role?	Yes, WWF shares UNDP's principles for human development. WWF policies are according to the UNDP policies and declarations. Yes, WWF has a clear role in supporting the implementation of the UN Conventions and work in alliance with UN institutions.	Policy statements
1.2.2 Governance	Who makes up the governing body and what is it charged with? How does the independent governing body exert proper oversight?	Yes, we have a clear organizational structure, composed by the director (who is the legal representative), and the following divisions: conservation, administration and finance, communication, policy, governance and planning and	Reports on the meetings of the governing body Profile of board members/trustees Copies of rules and procedures Minutes of management or

	Does the CSO have a clear and communicated organizational structure?	monitoring. The structure defines clearly the roles and responsibilities. We do not have a board in Colombia.WWF Colombia reports to the LAC secretariat who is based in WWF US in relation to administrative procedures.	decision-making meeting Code of Conduct CSO organizational chart

1.3 Constituency and external supportAbility to build collaborative relationships and a reputable standing with other sectors. Low level Risk

INDICATOR	AREAS FOR ASSESSMENT		APPLICABLE DOCUMENTS/TOOLS
1.3.1 Constituency	Does the CSO have a clear constituency? Is the organization membership based? Is there a long-term community development vision? Does the CSO have regular and participatory links to its constituency? Are constituents informed and supportive about the CSO and its activities?	Yes, WWF is an independent foundation registered under Swiss law, governed by a Board of Trustees under an International President. Gland, Switzerland is the home of WWF International, the secretariat for WWF's global organization. Its role is to lead and coordinate the WWF Network of offices around the world, through developing policies and priorities, fostering global partnerships, coordinating international campaigns, and providing supportive measures in order to help make the global operation run as smoothly as it can.	Mission-statement-goal Webpage / webforum Newsletter Report of field visits Media coverage Resource center or public assembly space
1.3.2 CSO local and global linkages	Does the CSO belong to other CSO organizations and/or CSO networks in its own sector? Does the CSO have strong links within the CSO community and to other social institutions?	WWF is one of the UICN an other international group of organizations that promote sustainable development principles, equity, conservation of the biodiversity, etc. WWF is a civil society organization and work in partnership with a great number of CSO from the environmental and social sector	Membership / affiliation in a CSO umbrella Letters of reference Participation in regional / national / international CSO meetings and conferences Partnerships agreements with other CSOs
1.3.3 Other partnerships , networks and external relations	Does the CSO have partnerships with government / UN agencies / private sector / foundations / others? Are these partnerships a source of funding?	yes, a great number of alliances with different stakeholders. Moreover, agreements and collaborative actions with key regional institutions such as CAN and ATCO and UN agencies such UNEP and FAO. Strong partnerships and projects with government institutions such as The Ministry of Environment, IDEAM, AVHI, Sinchi, among others. Moreover, work with key sectors such as Oil Palm, Cattle ranching, mining and infrastructure. Alliance with the corporate sector. The alliance with	Partnerships agreements and/or MoUs Records of funding and list of references Reports on technical external support from national and/or international agencies Minutes of partnership interactions

		these institutions will be based on joint MoU and specific projects that provide funding for technical staff and conservation projects. Alliance also with the media: TV: Caracol TV (Caracol TV is one of the two highest-rated private funded channels in the country) – press: El Espectador (is the leading independent newspaper in Colombia) and radio: Caracol Radio (First Colombian radio network).	

PART II. ASSESSING CSO CAPACITY FOR PROJECT MANANGEMENT

2.1 Technical capacity: Ability to implement a project.LLR/ High capacity implementation

INDICATOR	AREAS FOR ASSESSMENT	ANSWERS	APPLICABLE DOCUMENTS/TOOLS
2.1.1 Specialization	Does the CSO have the technical skills required? Does the CSO collect baseline information about its constituency? Does the CSO have the knowledge needed? Does the CSO keep informed about the latest techniques/ competencies/policies/trends in its area of expertise? Does the CSO have the skills and competencies that complement those of UNDP?	Yes, we have a solid policy division area that in alliance with the other divisions supports the implementation of international conventions and policy incidence at regional, national and local level. This includes working with multiple sectors and public partners influencing decision making. We have a very high capacity due to the professional training of the staff working on advocacy issues. Moreover, as part of the conservation division, we have a decision support system managed by the GIS staff. We are always using the best information and technology needed to strengthen our portfolio of priority conservation areas. Moreover, we are continually updating our intervention strategy in priority areas based on the policy context. Additionally we also count on with staff expertise in governance issues, especially on the ground and in the Ecoregion Chocó, long term alliances with local and community organizations, as well as	Publications on activities, specific issues, analytical articles, policies Reports from participation in international, regional, national or local meetings. Tools and methodologies Evaluations and assessments

INDICATOR	AREAS FOR ASSESSMENT	ANSWERS	APPLICABLE DOCUMENTS/TOOLS
		deep knowledge in the region base on around 20 years of conservation work in the Pacific. We have important skills and competencies regarding our conservation strategy that will complement the UNDP strategy. We have a porfolio of priority conservation areas in the Chocó Ecoregion that	
2.1.2 Implementation	Does the CSO have access to relevant information/resources and experience? Does the CSO have useful contacts and networks? Does the CSO know how to get baseline data, develop indicators? Does it apply effective approaches to reach its targets (i.e participatory methods)	Yes (see above), WWF is seen as a very powerful and knowledgeable leader. Part of this acknowledgment is derived from the fact that we always try to work in collaboration with all possible qualified stakeholders and to increase the capacities of our partners (local networks). Moreover, WWF is a network and work in alliance with WWF offices in Europe, US and other regions. WWF Colombia has a solid strategic plan that is built applying the open standards with a clear vision with measurable indicators. WWF has already strong base line information about the ecoregions (Amazon, Orinoco, Northern Andes and Chocó) and develop participatory approaches for the development of WWF Conservation Vision. It is also successfully implementing action plans in priority landscapes in these ecoregions, jointly with key stakeholders from different scales (national, regional and local).	Evaluations and Assessments Methodologies/training materials Use of toolkits, indicators and benchmarks/capacity-development tools Databases (of CBOs, partners, etc.)
2.1.3 Human resources	Does the CSO staff possess adequate expertise and experience? Does the CSO use local capacities (financial/human/other resources)?	Yes, (see C6 and C7), WWF has strong experience and presence on the field given all the work developed in region, including local strategic alliances and information. WWF work in	Profile of staff, including expertise and professional experience Staff turnover Chart of assignments of roles and functions Reports on technical

INDICATOR	AREAS FOR ASSESSMENT	ANSWERS	APPLICABLE DOCUMENTS/TOOLS
	Does the CSO have a strong presence in the field? What is the CSO's capacity to coordinate between the field and the office?	partnership with a great number of stakeholders at a local level. Our approach is to strengthen the capacity of local stakeholders for supporting conservation projects. Our presence is through our field office in Mocoa and through our partners. We have developed coordination mechanisms through continuous conference calls, email and visits to coordinate field and offices activities	experience from national or international agencies for operations and capacity-building

2.2 Managerial capacity: Ability to plan, monitor and co-ordinate activities. LLR

INDICATOR	AREAS FOR ASSESSMENT	ANSWERS	APPLICABLE DOCUMENTS/TOOLS
2.2.1 Planning, monitoring & evaluation	Does the CSO produce clear, internally consistent proposals and intervention frameworks? Does the development of a programme include a regular review of the programme? Does the CSO hold annual programme or project review meetings? Is strategic planning translated into operational activities? Are there measurable objectives in the operational plan?	Yes, we have a solid strategic plan that is built applying the open standards with a clear vision with a monitoring system and measurable indicators. We are adjusting our communications strategy to be fully aligned and articulated with the strategic plan. We are developing our business plan plan to support our fund raising strategy. WWF Colombia is in the process of sub-regionalization, and we will cover Ecuador, Panamá and Venezuela. Therefore, we are completing our strategic plan for the subregion and a new monitoring plan with measurable indicators and baseline. This is a living document that is evolving permanently, but provides us with enough guidance to design new interventions, communicate lessons learned, and raise funds. Based on our strategic plan, we develop technical proposals in alliance with key stakeholders. Based on our planning meetings we provide follow up to the program and projects. We carried out two annual planning meetings (one for planning and the other for evaluation). The strategic plan is the basis for the development of	Well-designed project and programme documents as well as evaluations and reports Action/operational plans Evaluation and monitoring reports

		objectives and operational activities including targets and indicators.	
2.2.2 Reporting and performance track record	Does the CSO report on its work to its donors, to its constituency, to CSOs involved in the same kind of work, to the local council, involved government ministries, etc.? Does the CSO monitor progress against indicators and evaluate its programme/project achievement? Does the CSO include the viewpoint of the beneficiaries in the design and review of its programming?	Yes, WWF reports on time and delivers to the donors. Our reports have all the required info, and audits have found full compliance in almost all cases.Internal and external evaluation reflected very good outcomes from our initiatives, programs and projects. We monitor our progress based on indicators. Moreover, based on our projects evaluation, we include partners and beneficiaries to analyse the impact and make adjustments in our strategy.	Reports on performance Reports to donors and other stakeholders Internal and external evaluation and impact studies

2.3 Administrative capacity: Ability to provide adequate logistical support and infrastructure

INDICATOR	AREAS FOR ASSESSMENT		APPLICABLE DOCUMENTS/TOOLS
2.3.1 Facilities and equipment	Does the CSO possess logistical infrastructure and equipment? Can the CSO manage and maintain equipment?	Yes, WWF have three offices in Colombia. The main office is located in Cali, where the administrative office is located. All the offices have adequate logistic infrastructure and equipment for all the staff. The Colombian Office reports directly to the LAC secretariat which is based on Washington DC. Therefore all the administrative policies and procedures are followed. We have inventories of all the equipments and furnitures that have all the insurances.	Adequate logistical infrastructure: office facilities and space, basic equipment, utilities Computer capability and library materials Proper equipment for area of specialization/inventory to track property and cost
2.3.2 Procurement	Does the CSO have the ability to procure goods, services and works on a transparent and competitive basis?	Yes, we have all the policies and special procedures for the procurement based on transparent and competitive process. For instance, to procure goods and services, at least three estimates are requested that will guarantee that all the suppliers have the same conditions and that will be selected considering not only the best price but also the best service. Moreover, considering that some donors have special requirements, we will follow our internal and donor procedures.	Standard contracts Examples of how procurement is done Written procedures for identifying the appropriate vendor, obtaining the best price, and issuing commitments

2.4 Financial capacity: Ability to ensure appropriate management of funds

INDICATOR	AREAS FOR ASSESSMENT		APPLICABLE DOCUMENTS/TOOLS
2.4.1 Financial management & funding resources	Is there a regular budget cycle? Does the CSO produce programme and project budgets? What is the maximum amount of money the CSO has managed? Does the CSO ensure physical security of advances, cash and records? Does the CSO disburse funds in a timely and effective manner? Does the CSO have procedures on authority, responsibility, monitoring and accountability of handling funds? Does the CSO have a record of financial stability and reliability?	Yes, the budget is prepared annually, considering the fiscal year that is managed by WWF (which is between the 1st of July to the 30th of July of the following year). The budgets are prepared with enough detail considering the donor sources for each project and requirements. The budget for FY13 was around USD7.5 million At WWF all accounting documents and records are adequated, managed and stored. In the area of accounting, the removal of the documents from the office is not allowed. It is clarified that all project resources are handled through bank accounts and no cash is handled.Disbursements are scheduled 2 times a week, and this requires that the request for payment, invoice or equivalent document has been previously reviewed and approved by the responsible person and must clearly indicate where cost center should be accounted WWF has all necessary internal procedures and policies for the entire area of Finance and Administration. WWF have a record of financial stability and reliability.	Operating budgets and financial reports List of core and non-core donors and years of funding Written procedures ensuring clear records for payable, receivables, stock and inventory Reporting system that tracks all commitments and expenditures against budgets by line
2.4.2 Accounting system	Does the CSO keep good, accurate and informative accounts? Does the CSO have the ability to ensure proper financial recording and reporting?	Yes, WWF Colombia uses the Accounting Programme ACCPAC, version 5.3 B, that is been used by the WWF program offices that report to the LAC secretariat. The accounting registers are made following all the procedures, internal policies and local legislations and also considering the donor requirements and restrictions. The financial reports are elaborated based on the accounting system and are available or internal and donors' revision if it is required.	A bank account or bank statements Audited financial statements Good, accurate and informative accounting system Written procedures for processing payments to control the risks through segregation of duties, and transaction recording and reporting

8.6.Stakeholer Capacity Analysis

The capacity analysis form was applied to fourteen (14) stakeholders involved in the project, which classified according to their action level, five (5) belong to the national category: MADS, MME, ANLA, ANM and WWF; six (6) regional: Munchique NNP, Las Orquídeas NNP, Tatamá NNP, Farallones de Cali NNP, CODECHOCÓ and IIAP; and three (3) locals: ASOCASÁN,

COCOMACIA and Espavé. On the other hand, stakeholders were classified according to the type of entity: four (4) belong to the private sector (ASOCASÁN, COCOMACIA, Espavé and WWF) while the remaining ten (10) to the private sectors. The complete form is found in the CD attached to this document.

Supporting Strategic Area	TOPIC	ANLA	ANM	MME	MADS	WWF	NNP Munchiq	NNP Orquidea s	NNP Tatamá	NNP Farallon es	Codecho có	IIAP	Asocasa n	Cocoma cia	Espavé
1. Involvement capacities	Legitimacy of the stakeholders and leadership transparency	2	1	2	3	3	2	3	2	2	2	3	1	2	1
	Existence of prior cooperation with groups of interest	1	1	2	3	3	3	1	1	2	1	1	2.5	0	3
	Stakeholders generate mechanisms to cooperate with different groups of interest	2	2	2	3	3	2	2	1	4	2	2	2	2	2
2. Capacity to generate, manage, and use information and knowledge	Authorities have been necessary information to fulfill their duties and interact with different groups of interest	1	2	2	2		2	2	2	2	3	2	1	2	1
	Stakeholders possess knowledge and sensitivity in regards to environmental issues	1	3	2	1	3	2	0	0	1	3	2	1.5	1	2
	Access and possibilities to share environmental and mining information between stakeholders	1	2	2	2		1	1	1	0	2	1	1	1	0
	Existence of environmental education and good mining practices programs	1	0	1	2		0	2	0	0	1	1	2	0	2
	At the relation between environmental and mining research, with public policy development	1	1	3	1	3	0	2	0	0	3	2	2	0	2
	Inclusion of traditional knowledge in decision-making regarding environmental and mining issues	1	2	2	1		0	1	1	2	1	1	3	1	1
3. Capacities for strategy, policy, and regulation design	Scope of the planning process and design of studies for sustainable use of natural resources	2	0	2	1		0	2	1	0	1	1	2	0	0
	Existence of an adequate political and regulatory environmental and mining framework	1	2	2	1		0	1	1	2	1	2	1.5	0	0
	Leadership capacities in environmental	2	2	2	1		2	2	1	1	2	2	1	2	2

Supporting Strategic Area	TOPIC	ANLA	ANM	MME	MADS	WWF	NNP Munchiq ué	NNP Orquidea s	NNP Tatamá	NNP Farallon es	Codecho có	IIAP	Asocasa n	Cocoma cia	Espavé
	entities														
	Existence of legally constituted entities for activity implementation	0	2	1	0	3	1	1	0	1	0	2	1	1	1
4. Capacities for management and implementation	Existence and execution of resources	2	1	2	1	2	1	1	1	1	2	1	1	1	1
	Existence of sufficient technical capacities and technology transfer capacities	0	1	2	0		1	2	2	0	1	2	2	2	2
	Information on environmental monitoring tools in mining areas	0	0	2	2		0	1	0	1	1	1	0	0	0
5. Monitoring and evaluation capacities	Information and tools for evaluation	0	1	2	2		0	2	1	2	3	2	0	0	0
	Civil society participation in the social control of natural resources management	1	1	2	2	3	1	2	2	2	1	1	1	3	2
	The entities have a good response and adaptation capacity	1	2	2	1	3	2	2	2	1	2	2	3	1	1
6. Capacities for control and surveillance	Control and monitoring of environmental regulations	1	2	2	2		1	2	1	0	1	1	1	2	2
	Existence and execution of resources for control and monitoring	2	0	2	2		1	1	1	0	2	2	1	0	1

8.7.Prioritized Areas Analysis

	Areas / Criteria	Municipality / Area	Institutional Strength	Project Background	Social Feasibility	Mining Affectation	Public Order	Geographic Location	TOTAL	Relevant Persons (Stakeholders)	Justification
AREAS SUGGESTED IN INTERNAL TEAM MEETING	ANTIOQUIA/ URABA	Unguía	1	3	2	1	2	1	10		In the Colombian Urabá region, substitution of forests by banana and African palm plantations (WWF). Livestock-related activities are also widespread.
		Middle Atrato basin region: Vigía del Fuerte, Murindó and Frontino	2	3	3	2	2	3	15	Espavé, BIOREDD; ACDIVOCA, RI JAKERAZABI, Antioquia departmental administration, Corpourabá, WWF, Fundacion Natura	Gold and platinum mining activity in the area; logging and soil affect patients when water pumps,, dredgers, and backhoes are transported through. In this river significant fishing is done during spawning, but inadequate fishing techniques and mining activities are affecting the resource. In the middle Atrato River basin there is a greater anthropic pressure on the right margin of the river given the occupation of riverbanks by Afrodescendant communities. As most of the territory made up by floodplains, natural landscape transformation of course mostly on lands with agricultural potential, such as banks and elevated areas. The left margin of the river experience is less antropic pressure, as surrounding terrains are less arable. (WWF) An integral forest use initiative within the program (Mini-chain of products from the Middle Atrato forests) supported
	CHOCÓ	Middle Atrato region: Bojayá	1	3	3	3	2	3	15		

											by the Espavé Foundation consists of productive chains articulated in the regional business initiative Bosque Humedo Biodiverso SAS and with companies such as Ecoflora and Naidi. It integrates 28 communities in two municipalities with possibilities of extension across the whole Middle and Lower Atrato regions. Contiguous to the NNP Los Katíos and NNP Orquídeas Middle Atrato wetlands management plan
		Lower Atrato region: Carmen del Darién and Riosucio	1	2	2	1	1	2	9		
		Tadó	1	3	3	3	2	3	15	CODECHOCÓ - ORO VERDE PROGRAM, IIAP, ASOCASAN, OTE-Javerana	Intensive exploitation of alluvial gold The mining area of the San Juan River is one of the areas with active landscape transformation, not only due to its sizable population, but also to mining operations that imply forest logging and soil affectation. Although it is true that mining areas retain many cases its vegetation cover, such vegetation frequently belongs to the fast-growth secondary forest category, with a species composition and structure that reveals these are impoverished forests (WWF). Its community council has a clear bet on sustainable development of the territory and its community, with delimitation of zones, land use management, and

											regulation initiatives supported by the Ethnic Territories Observatory of the Pontificia Universidad Javeriana Contiguous to NNP Tatamá
		San José del Palmar	1	1	2	2	2	2	10	National Parks, CODECHOCÓ, ASOMUTA, IIAP.	There is strong pressure caused by mining exploitation, adding to the proliferation of illicit crops. The Association of municipalities is an administrative and political figure for the development of the project. Most areas are in very good state of conservation; the municipality has a 51% share of the National Park's area.
		Condoto	1	3	1	3	2	3	13		Intensive exploitation of alluvial gold Condoto is home to the fourth largest platinum alluvium in the world, and the first in America. //. The mining area of the San Juan River is one of the areas with active landscape transformation, not only due to its sizable population, but also to mining operations that imply forest logging and soil affectation. Although it is true that mining areas retain many cases its vegetation cover, such vegetation frequently belongs to the fast-growth secondary forest category, with an species composition and structure that reveals

											these are impoverished forests (WWF).
		NNP Tatamá	3			1			4	CODECHOCÓ - Colombian Agricultural Research Corporation (CORPOICA)	There is an urgent need for short-term conservation initiatives, as this area is part of a very important buffer corridor standing between a great pressure from the expanding coffee region and cattle raising areas into the Pacific lowlands.
		NNP Orquídeas							0	CODECHOCÓ	Expansion of the Natural Park intends to ensure conservation of the area in a wider altitudinal gradient, covering from lowlands to páramos.
	VALLE DEL CAUCA	Anchicayá	3						3	CORPOICA, BIOREDD	There are plans for the development of energy generation on the Anchicayá River, Buenaventura municipality. // The Cali-Buenaventura vehicle corridor also exerts high level of anthropic pressure on its area of influence, from the high Andean slopes to the mouth of the Anchicayá River.
		Dagua River basin	2	3	2	3	1	3	14	CORPOICA, BIOREDD, CIPAV	CORPOICA develops restoration programs in strategic areas of the Dagua River basin. // The Cali-Buenaventura vehicle corridor also exerts high level of anthropic pressure on its area of influence, from the high Andean slopes to the mouth of the Dagua River.

		Buenaventura	3	3	3	2	2	2	15	Farallones NNP; CORPOICA Community Councils Mayor de Anchicaya, Bella Vista, Mayorquin, Naya, Raposo River, Cajambre River, Yurumangui River. Local roundtable with the Community Councils of the Pacific (Mesas de Cajambre, Mayorquin, Raposo, Naya, Yurumangui and Anchicayá)	Confluence of strong institutions CORPOICA, WWF, BIOREDD; local PA creation projects, high level of mining affectation, restoration project in Farallones NNP and in indigenous and Afrodescendant communities.
	CAUCA	Guapi	1	2	3	3	1	2	12	CRAC, ASOMANOSNEGRA, BIOREDD, ACDIVOCA	
		Timbiquí	1	2	2	3	1	2	11	CRAC, ASOMANOSNEGRA, BIOREDD, ACDIVOCA	

From low to high, scores are 1: Low, 2: Mid and 3: High Regarding public order, 1: Poor conditions while 3: Better conditions; for geographic location, 1: Easy access while 3: Difficult access.

8.8.Environmental legislation framework for mining activities

LEVEL	SECTOR	REGULATION	SCOPE	AUTHORITY
National	Environmental - Forest resource	Law 2/1959	Adopts the Pacific Forest Reserve and establishes restrictions for mining development within this conservation area.	MADS and CARs
National	Environmental - Forest Resource, Water Resource	Decree-Law 2811/974	Which set forth the National Code for Renewable Natural Resources and Environment Protection	MADS and CARs
National	Sanitary and environmental - Solid residues	Resolution 2309/1983	Regulates classification, management, transportation, treatment, and disposal of special solid residues. Likewise, regulates records, sanitary authorizations for the abovementioned activities, and	MADS and CARs

LEVEL	SECTOR	REGULATION	SCOPE	AUTHORITY
			compliance plans.	
National	Environmental - Forest Resource, Water Resource	Decree 1594/1984	Which partially regulates Title I of Law 9/1979, as well as Chapter II of Title VI - Section III - Volume II and Title III of Section III - Book I of Decree 2811/1974 in regards to Water Use and Liquid Waste.	MADS and CARs
National	Environmental - Mining	Resolution 541/1984	Which regulates loading, unloading, transportation, storage, and final disposal of debris, materials, elements, concrete, loose aggregates from constructions, demolitions, organic layers, soil and excavation subsoil.	MEE and CARs
National	Environmental - General	Law 99/1993	Whereby the Ministry of Environment is created, the public sector in charge of conservation and management of the environmental and renewable natural resources is reorganized, and the environmental national system (NES) is organized, among other provisions.	MADS and CARs
National	Environmental - General	Decree 605/1996	Which regulates Law 142/1994 regarding the provision of domiciliary public sanitation services. Chapter I of Title IV (Prohibitions and Sanctions)	MADS and CARs
National	Sanitary-Environmental, Water Resource Management	Decree 475/1998	Whereby technical guidelines for drinking water quality assurance are set forth.	MADS and CARs
National	Sanitary-Environmental, solid waste integral management	Decree 1713/2002	Which regulates Law 142/1994, Law 632/2000, and Law 689/2001 regarding the provision of public sanitation services; and Decree 2811/1974 and Law 1993 regarding solid residue integral management.	MADS and CARs
National	Sanitary-Environmental, hazardous waste integral management	Decree 4741/2005	Which partially regulates prevention and management of hazardous waste or residues generated within an integral management framework.	MADS and CARs
National	Sanitary-Environmental: Air Quality	Resolution 601/2006	Whereby the Air Quality Standard or Inmission Level for all the national territory is established, under specific reference conditions.	MADS and CARs
National	Sanitary-Environmental:	Resolution 627/2006	Which establishes the national rule for sound emission and	MADS and CARs

LEVEL	SECTOR	REGULATION	SCOPE	AUTHORITY
	Air Quality, Noise		environmental noise.	
National	Environmental - Licensing	Decree 2820/2010	Which defines the scope of Environmental Licensing, and the competence of the Ministry of Environment and Autonomous Corporations for Sustainable Development for granting environmental licenses to mining operations.	MADS, ANLA, and CARs
National	Environmental - Licensing	Resolution 1517/2012	Adoption of the biodiversity loss compensation manual	MADS, ANLA, and CARs
National	Mining	Law 685/2010	Which regulates mining exploitation in Colombia, from exploration actions to the exploitation, closure, and abandonment of mines.	MME, INGEOMINAS, Municipal administrations
National	Mining	Decree 1382/2010	Reform of the Mining Code that was deemed unenforceable by the Constitutional Court, and maintains for two years, until a new regulation is released, a ban on mining in ecosystemic and environmental interest areas, including páramos.	MME, INGEOMINAS, Municipal administrations
National	Ethnic groups	Law 70/1993	Law for Afrodescendant communities that recognizes collective ownership of ancestral territories.	MIJ MME, MADS, Municipal administrations, Community Councils of Afrodescendant communities
National	Environment	Public Policy	National policy for Integral Management of Biodiversity and Associated Ecosystem Services	Environmental Authorities
National	Environment	CONPES3680/2010	Guidelines for the consolidation of the National System of Protected Areas	NNP
National	Environment	Decree 2372/2010	Which regulates the Protected Areas National System	NNP
Local	Ethnic groups	Internal Regulations of Community Councils	Defines internal guidelines for territorial administration	Community Councils, Municipal administration, CARs
Local	Ethnic groups	Management Plans for Collective Territories	Instrument for planning the use and management of the territory and its natural resources, supported by a component for the zoning of the collective area	Community Councils, Municipal administration, CARs
Local	Ethnic groups	Biocultural protocols	Concept document and guide describing customary connections,	Community Councils,

LEVEL	SECTOR	REGULATION	SCOPE	AUTHORITY
			natural resources offer, cultural identity, and principles for sustainability of collective territories.	Municipal administration, CARs

8.9.Feasibility of Productive Alternatives

An economic feasibility assessment of productive alternatives suggested by the project strategies was performed, developing recommendations to achieve an adequate monitoring and ensuring implementation of proposed measures to guarantee sustainability. This analysis also includes an evaluation of social and economic benefits of increasing forest area; improvement of mining operations for minimal environmental impact, and strengthening mining planning.

Mini-chain of Products from the Middle Atrato Forest - COCOMACIA and Espavé				
Productive alternatives	**Justification Facing Mining Pressures**	**Feasibility**	**Environmental, Social and Economic Benefits**	**Recommendations for monitoring**
Jagua	The Mini-chain of Products from the Middle Atrato is an initiative that promotes knowledge, use, and sustainable development of non-timber forest products through value chains based on the principles of biotrade. The portfolio of products in the mini-chain includes Jagua (*Genipa americana*), sold to Ecoflora for dye extraction; Naidí palm (*Euterpe oleracea*), sold to Productos del Bosque Naidí SAS for the production of frozen pulp and palm hearts; and the Milpesos palm (*Oenocarpus bataua*) for the extraction of natural oils sold to different cosmetic laboratories. Providing incentives for knowledge decision and use of biodiversity is a strategy the communities and the Espavé Foundation employee to neutralize pressures on the forest and the deterioration of sustainable means of life for communities. The Middle and Lower Atrato	The strategic alliance with Ecoflora has open at window for a potential niche blue dye in international markets (USA, Brazil, Ecuador). Current market conditions are equivalent to a 500 ton fruit demand from year 2014 onwards. Espavé has provided the foundation for a a productive chain researching on a species and coupling findings with the formulation of a participative management plan and protocol for exploitation, development and transfer of harvesting techniques, management and propagation of species, training of producers in management and of harvesters in canopy harvesting techniques; the progress in procedures for legalization of such activities directly with CODECHOCÓ and CORPOURABÁ; the definition of commercial agreements for benefit distribution, fair price, quantity conditions and all required for the creation of a local enterprise to operate a supply system.	Economic benefits, the price of the fruit is paid to the producer in charge of handling at COP$ 800/kg. Bosque Húmedo SAS sells Ecoflora fruit at COP$ 3,500/kg and is responsible for harvesting, selection, traceability, and management plan monitoring. Ecoflora SAS is currently developing the dye market in the US, which requires FDA approval and preparing a production plant for the extraction of dye for optimal working conditions. In addition it holds the patent for the extraction process, protecting their technological achievement for xx years. Under these conditions, a producer with 100 trees can produce a 8 tons/year, leading to a monthly income of COP$ 533,000. To harvest 1 ton of Jagua per day, to harvesters and two helpers are required, meaning direct employments (hired harvesters) and occasional jobs I created.	The Jagua case requires monitoring tree density, but also the reduction of other species as consequence of the promotion of the productive tree. For this reason, promotion must be made in a controlled manner and employing agroforestry arrangements that ensure ecosystem integrity within the tropical rainforest. Likewise, monitoring species as well diseases and plagues that may deteriorate or manifest themselves after sufficient pressure has been exerted on the species. Income generated by productive families, including harvesters and community supporters in addition to the company's profitability and improvement of quality of life must be monitored to ensure the new endeavor provides social and economic advantages.

	region has been highly affected by timber extraction but, indirectly, informal mining activity in the upper zone of the Atrato River basin has affected the additional productive systems due to increased river silt and flooding, as well as desiccation of marshes (important fish sources); these pushes people to return to the forest searching for alternative income sources. Thus, in the Middle Atrato region there is already informal mining activities and third parties are interested in exploration (requests for mining rights), and also interests from municipalities to provide incentives for mining in their development plans. For this reason, the initiative allows for ethnic-territorial organizations to provide development alternatives that are compatible with principles of autonomy and sustainability within a community.	The grand challenge is production scaling, incorporating new communities to acquire new producers, and training sessions to satisfy demand in 2014, thus consolidating the value chain.	The profitability of Bosque Húmedo is 50%, rain bested in the communities as it corresponds to the participation of two non-for-profit organizations, namely Espavé and COCOMACIA, Environmental benefits: Up until people realized that Jagua has commercial value, these trees were made into timber for domestic use, promoting deforestation. The promotion of Jagua, both in situ and in agroforestry, is instead contributing to vegetation cover. Social benefits: indigenous people to prevent infections as well as ritualistic body paint have traditionally used Jagua. Jagua use may provide essential conditions for the recognition of a cultural identity through biodiversity among indigenous and Afrodescendent communities. Likewise, a new source of income is being generated and logically it is expected to improve the quality and conditions of life for involved families.	
Naidí		This species has not been used in the region, except for building trenches with its trunk. Using its fruits and hearts is relatively new in the region.	Economic benefits: a producer in Brazil harvests between 300 and 350 kg of fruit a day. Current yield in the Atrato area hovers between 80 and 100	Given that the species has not been traditionally exploited, monitoring impacts on palm stands due to management and extraction is necessary through

		In Brazil, the Naidí o Açaí palm is widely consumed and the market for exports has developed greatly during the last years. There is a growing demand for it as foods as well as a functional product in markets across the United States and Europe. Naidí pulp has been used to prepare drinks, powders, tablets, cosmetics, among other applications. Naidí pulp has an outstandingly high anthocyanin content, which has certain anti-aging and cancer prevention properties. Along the Atrato river basin there are wild Naidí stands, both mixed and pure. From 2006 onwards, the Espavé foundation and group of businessmen led by Ecoflora developed a business model for the value chain of this product. Today, the chain has a management plan for the species, a model for the use of the plant, pulp and heart extraction processes for export; a company created for extraction and marketing, PB Naidí SAS, and an ongoing business arrangement with CORPOCAMPO. Pulp price is set by the market and ranges between 2.6 and 3.2 USD/kg. Purchase prices in Brazil are around COP$1,200/kg of fruit.	kg/day. The producer gets paid COP$ 160 for fruit still on the palm, with Bosque Húmedo hiring a harvester later. Once a dynamic of recollection has been reached and producers are capable of harvest the fruits, the 5-month harvesting season may generate approximately 150,000 per day. Environmental benefits: the Naidí palm is found on buffer zones close to floodplains and marshes. Therefore, the species' ecosystem function is key in water regulation processes. In situ or in agroforestry environments, its permanence in the ecosystem is guaranteed. Social benefits: Idem.	the generation of control areas and performing associated species and soil monitoring.

		The company's business models when buying the fruit to the producer suggested that COP$ 656/kg of fruit and COP$ 1000/unit for heart production were adequate prices. The great challenge is to dynamist a culture accustomed to fruit collection; currently, yield levels of field personnel, difficult access conditions, state of the plants, and transportation costs, among other factors make production quite expensive, resulting in a kilogram of fruit costing three times more than paper are willing to pay for it. In this case, actions are being taken to improve pulp sale price: implementing processes that provide added value, leveraged contributions or subsidies to ensure actual production costs are covered.		
Milpesos		Oil extracted from the Milpesos palm has been traditionally used by Afrodescendant communities as cooking oil. However, Friedrich collection practices involved felling the poll, reducing greatly the species population density in neighboring forests. In 2005 the Espavé Foundation started a research project on native palm species to assess the extraction of pulp and oil, finding a strikingly high quality	Economic benefits: Producing a liter oil locally costs between COP$ 12,000 and 20,000. Current clients are paying COP$ 27,000 for bottle of oil sold in Medellin. Oil production implies paying harvesters and processor personal, which are usually women. Environmental benefits: The Middle Atrato region is well known as a very diverse area for	Monitoring impacts on stands due to management and extraction is required, through the creation of control areas and monitoring of associated species and effects on the soil.

		in the variety of oils extracted. As a consequence, the cosmetic industry has expressed great interest on these oils. Laboratorios Neyber y Ecoflora Cares SAS are interested in their use and applications within the cosmetic industry There you currently has a management territory plan and a protocol for exploitation of the species, along with a protocol for oil extraction and agreements on research for potential applications of extracted oils signed by Laboratorios Neyber and Ecoflora. There are many secrets still hidden within this and other native oil palms, which will eventually become a highly attractive portfolio of oils in the middle of the market with a preference for natural cosmetics, containing biodiversity derived products. The extraction process is currently perform in an artisanal manner, using a traditional system. Bosque Húmedo is implementing improvements to obtain a more homogeneous and higher-quality oil.	palms, with many species still unstudied. As with other species, proper biodiversity use ensures the preservation of vegetation cover and the value it has for communities, while maintaining the ecosystem's integrity. Social benefits: Idem.	

8.10. Community Workshop Memories and Assistance List

Purpose

The workshops aim to guarantee an effective articulation of the community with the project "Biodiversity Conservation in Landscapes Affected by Mining Operations" of the MADS and UNDP, financed by GEF, through the generation of dialogue and participative construction with all interested parties on a community level.

Expected Outcome

- The participants are aware of the general topics of the project.
- The participants are aware of the activities proposed to reach the project objectives.
- The participants are aware of the process that has been going on during the formulation stage.
- The participants are aware of they are role in the project's formulation.
- The participants are aware of, and agree with, that productive alternatives and incentives identified and suggested for the implementation of the project.
- The participants fill out the score form on capacity development.

Assistance

PROYECTO N° 83679 -CONSERVACIÓN DE LA BIODIVERSIDAD EN PAISAJES IMPACTADOS POR LA MINERÍA EN EL CHOCÓ BIOGEOGRÁFICO

Tadó, Chocó - Miércoles 3 de Julio de 2013.

FASE DE FORMULACIÓN DEL PRODOC - Reunión Comunitaria para la socialización de los avances del proyecto.

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PROYECTO N° 83679 -CONSERVACIÓN DE LA BIODIVERSIDAD EN PAISAJES IMPACTADOS POR LA MINERÍA
EN EL CHOCÓ BIOGEOGRÁFICO
Quibdó, Chocó - Martes 2 de Julio de 2013
FASE DE FORMULACIÓN DEL PRODOC - Reunión Comunitaria para la socialización de los avances del proyecto.

AMICHOCO GESTIÓN ESTRATÉGICA

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Methodology

Topic	Outline of Activities	Methodological tools
1. Presentation of the formulation process of the project the consulting company has been leading	**1.1 Opening:** Assistance list Greeting; introduction to the meeting Introductions (name, institution, the military organization, prior info on the project, expectations) Presentation methodology and agenda	✓Assistance list form ✓Flip chart, for gathering expectations ✓ Checklist of results obtained and fulfillment of expectations: on the board place results and additional spec patients that arise from the presentation with a checkbox to indicate what has been achieved and what has not. ✓Visual chronometer: in each section of the meeting, the exhibitor is given cards times which represent 10 min. each. The moderator removes the card from the chronometer every 10 min (please, where visible by the executor) ✓Presentation of the agenda for the meeting
	1.2 Presentation of the project: 1. About us 2. PIF formulating entities 3. Objective of the project 4. Added value of the project 5. PIF/PPG formulation process 6. Intervention areas 7. Implementation schedule 8. Components: outcomes and outputs	✓Presentation part 1.ppt ✓Printed map
	1.3 Opinions and feedback from participants about the project Some questions will be asked to direct the discussion towards the expected results of the project as well as the issues it pretends to engage and suggested strategies and activities.	✓Leading questions ✓Paleograph for systematized participants interventions Leading questions - examples -Does the project engage issues that are affecting communities today? -What are the considerations that someone was about to execute the project must have in mind? -What should be the role of communities in the project and how do they participate? -Who are the key persons within a community?

Topic	Outline of Activities	Methodological tools
2. Discussion on the feasibility of existing alternatives or new alternatives to implement	2.1 **Presentation of productive alternatives that the project intends to promote**	✓Presentation ✓Printed map ✓Gather perceptions, expectations,, warriors, proposals as identified or suggested alternatives
	2.2 Feasibility analysis of alternatives Assign scores to each of the initiatives with the predefined chart of criteria, and select the most viable ones.	✓Paper flip chart with predefined criteria and plenary meeting.
3. Meeting conclusions	Reviewing the results of the meeting and the expectations of the participants Defining the next step, commitments and chronogram.	✓Checklist of expected results and other expectations ✓Steps to follow
4. Capacity assessment and location of counterparts	The meetings with community leaders	✓Individual meetings

Workshop development

Quibdó, July 2

The documentation center of the IIAP witnessed the workshop between 10:00 am and 4:00 pm.

Participants included 4 COCOMACIA directives, the regional representative of Espavé foundation, an IIAP researcher, a WWF representative and a delegate of the BIOREDD USAID program.

Topics addressed

1. Presentation of the project
2. Presentation of proposed areas
3. Presentation and discussion on identified initiatives
4. Exercise on strategy construction
5. Individual interviews on capacities and counterparts

The first topic was socializing the project, its formulations stage, current state, and stakeholders which have participated in its formulation aiming to have participative sessions with the communities. Components, goals, and outputs where explained, making much more clear what is the expected outcome of the project.

Facing the project, the regional representative of Espavé says that one of the greatest risks of the project is to ensure that public entities fulfill their duties. And wonders what to do to prevent this from happening, given that institutional weakness is due primarily to the quality of people and institutions they are made of. There may be rules, procedures, training, but if officers do not assume their function, nothing gets done. Who should make sure that these improvements suggested by the project, do happen? It's a responsibility of the State, of its ministries, to ensure that corporations and local mining authorities, namely the Municipal administration) truly act as a figure for planning, control, and surveillance, and that actions are taken.

The second topic presented two areas of focus of the project and initiatives for each of the products of component 2. this topic was developed by explaining with a funnel diagram how the consulting team has reached this shortlist.

Later on, the discussion on selected areas opened. For COCOMACIA, Espavé Foundation and the IIAP there were no objections on the selected areas. The direct impacts communities are leaving as a consequence of mining in the upper portion of the Atrato River basin is ratified. Attendants expose the following impacts: Sedimentation or silting, heavy metals, desiccation of marshes, diminished fish stocks, alteration of traditional product of systems, the presence of armed groups behind informal mining activity using backhoes, erosion, and flooding due to land removal.

The communities were presented with some REDD+ initiatives and they recognize the progress is achieved by USAID's BIOREDD program; the delegate of the program states that the list of identified communities must be updated, as said list is highly dynamic. Currently the programs still in a socializing process; after that, bases shall make a decision regarding the implementation of a REDD+ project. Such decisions require considerable organizational strength in the community to ensure its success, while also require everyone

involved to be well informed about it. Likewise, the delegate exposed that one of the products from the BIOREDD program was to leave the country as the baseline, reference state for carbon stocks in the Pacific coast.
25% consisted of a presentation by the representative of Espavé and COCOMACIA on the status of the Mini-Chain Forest Products initiative, to be able to validate activities proposed by the consulting team in support of this one. The following voids are pointed out: species knowledge and appropriation, added value in Jagua processing from quality; strengthening the company; weaknesses in licensing processes for the use of forest resources with the CAR; need to scale and expand areas and productive communities even the potential market, which should be adjusted and appropriated by the turnout regulations of the communities for the use of natural resources; training for producers, harvesters, food handlers.
The main challenge of the Mini-chain of Forest Products today is the authorization for the use of resources. Four years with an above process for this at CODECHOCÓ, and they still do not have this permit. Among the reasons for this are gaps in current regulation for the use of non-timber products, and a nonexistent will to carry out transparent, efficient, and optimal processes Another challenge is the appropriation of internal regulations within communities to ensure sustainable use of natural resources in accordance with the provisions of management plans. For this reason, Espavé has switch to a participative manner the construction of management plans, regulations, training, and sensitization of communities Nonetheless, once economic income is perceived is necessary to establish control and monitoring measures to ensure sustainability of the initiative and ecosystem integrity.
These difficulties are a risk to the project: Institutional weakness due to the will of its officers and directors, the approbation of communities, and the lack of traditional articulation between communities and territorial entities
After the presentation of the initiative Mini-chain of Forest Products, a proposal for support and activities was push forward.
The Espavé requested some time to review the problem
In general activities are in accordance with the necessities, although they are always too general for me.
The last part of the workshop consisted of assessing capacities of Espavé Foundation and COCOMACIA as stakeholders of the project. The results are presented in the attachments.
Final comments:

- Any project that's going to be implemented in the COCOMACIA territory must be notified and socialized to all communities.
- The project responds a need in the region to protect a sustainable alternative practice to mitigate mining impacts.
- The mini-chain is an initiative from communities varies quite dedicated when facing so many social and economical difficulties and also State abandonment. Therefore, fast action is required in order to broadcast this situation caused by mining and other non-sustainable practices in the region. Quality of life is highly affected, as are food security, opportunities for income generation and ecosystem services.

Tadó, 3 July
The auditorium of the environmental station of the IIAP in Tadó hosted the workshop between 10 and 4 PM

Attendants on this occasion were nine representatives of ASOCASAN, between directors and members of the social or technical team, two of which are part of the IIAP and one is a young investigator in Antioquia University; and finally 4 members of the NNP Tatamá crew.
Similarly to the prior location, the following topics were developed:

1. Presentation of the project
2. Presentation of proposed areas
3. Presentation and discussion on identified initiatives
4. Exercise on strategy construction
5. Individual interviews on capacities and counterparts

The interview can was carried out in the same manner as before. Below do the representatives of ASOCASAN and NNP Tatamá engage the comments of the discussion:

- Protected areas shouldn't be simply categories established in the NSPA, as for example the communities also have conservation initiatives within their own territories. To this, the director of the NNP Tatamá replies that such regulations must come from the MIJ. ASOCASAN's representative stated that regulation found in Chapter IV could solve these and other environmental issues from an environmental standpoint.

- ASOCASAN's representative recommends referring to them as community councils or "cabildos" instead of community organizations.

- ASOCASAN's members comment that they see very little chance for their communities to have any incidence on public policies. ASOCASAN has participated in multiple scenarios for broadcasting ideas and issues and has never seen those efforts reflected in a policy. Only during the current Municipal administration and thanks to the support provided by the USAID's ACIP program, they managed to incorporate their visions in the municipal development plan (PDM). However it remains as a plan to this day, as none of it has been implemented.

- A review of planning and regulation instruments in mining policies shows a large void of any ethnic perspective. Once again, the representative states that regulate the chapter, Chapter V, would partially resolve the political and legal void. We should seek for ethical perspectives to become incorporated into these documents.

- Regarding the ethical development plan for Afrodescendant communities, ASOCASAN's representative states that Law 70/1993 demands its formulation to be participative, as an expression of the community's response to developments within their territory and that the state must guarantee its implementation; this however has not been enforced. Therefore, any actions taken correspond to the autonomous efforts of communities with the help of strategic allies but without adequate help or leadership from the State.

- ASOCASAN's has its own internal regulations, guidelines for an ethnic development plan and for a territory use, management, and administration plan. It also has cartographic and capacities for the use and interpretation of geographic information. The territory use and management plan includes a zonal delimitation of the territory in categories according to use: areas of interest or protection, strategic areas for territorial defense, restoration areas, multiple use areas, water preservation areas, heritage areas, and populated centers.

- The needs of ASOCASAN for territory planning with an ethic perspective are: full-scale violation of the management plan, cartographic development, community appropriation, communication strategies, municipal stipulations, and control and monitoring of the plan.

- The ethnic development plan, in a section dedicated to natural resources and business ventures, establishes a portfolio of productive alternatives, including: Oro Verde, a technique on mining

development under the Fairmined standard; an aquaculture project with 95% female employees); firstly development through a commentary company that provides forest management plan and license), ecotourism and agroforestry. The principal needs for strengthening among these initiatives are in the partnership, business development, and market articulation areas.

- Among the risks ASOCASAN lists for the project is that there aren't enough resources for participation and support of local personnel and an effective articulation with CODECHOCÓ or the municipality, given its political will, quality of the officers, and little diligence in internal processes.

- Representatives of the NNP Tatamá expressed great concern for the disarticulation of conservation strategies of the project when the REDD+ project areas were presented. We cleared up that due to resources optimization, focus and time, the consulting team proposed initiatives that were already well underway. Nonetheless, the UASPNN argues that the project should have a landscape management focus, when all strategies are combined within a single territory.

At the end of the workshop, the project was understood by representatives of the community and accepted to continue its formulation. They stated that with their two current resource management cases they could send a partial contribution request to the UNDP. Both managed areas are the second phase of support of USAID's ACIP program, as part of a project with the IDB and the Alliance for Responsible Mining for the promotion of mining under the fair trade standards of Fairmined.

8.11. Projected carbon benefits for a REDD+ pilot project in the Choco biogeographical region

Year	Baseline					Scenario with project					Project benefits			Leaks		Net emissions reduction		Carbon credits		
	Forest area	Deforestation rate	Projected deforestation without project	Projected emissions without project		Forest area	Deforestation rate	Projected deforestation with project	Projected emissions with project		Avoided deforestation	Projected emission reduction with project		% change in emissions reduction in the project area	Emissions with project	With project		Credits VCS AFOLU Buffer	Debits VCS AFOLU Buffer	VCUs
	ha	%	ha/year	tCO_2-e/year	tCO_2-e	ha	%	ha/year	tCO_2-e/year	tCO_2-e	ha	tCO_2-e/year	tCO_2-e	%	tCO_2-e/year	tCO_2-e/year	tCO_2-e	tCO_2-e	tCO_2-e	tCO2-e
2013	70,000.00	-1.70%			-	70,000.00		0.4	-	-	-	-	-	0%		0	-			
2014	68,810.00	-1.70%	-1190.0	925,027	925,027	68,810.00	-1.70%	-1190.0	925,027	925,027	-	0	0	0%	-	0	0			
2015	67,640.23	-1.70%	-1169.8	909,301	1,834,328	67,640.23	-1.70%	-1169.8	909,301	1,834,328	-	0	0	0%	-	0	0			
2016	66,490.35	-1.70%	-1149.9	893,843	2,728,171	67,180.28	-0.68%	-460.0	357,537	2,191,865	689.93	-536,306	-536,306	10%	53,631	-482,675	-482,675			
2017	65,360.01	-1.70%	-1130.3	878,648	3,606,819	66,728.14	-0.67%	-452.1	351,459	2,543,324	1,368.13	-527,189	-1,063,495	10%	52,719	-474,470	-957,145			
2018	64,248.89	-1.70%	-1111.1	863,711	4,470,529	66,283.69	-0.67%	-444.4	345,484	2,888,809	2,034.80	-518,226	-1,581,721	10%	51,823	-466,404	-1,423,549	569,420		854,129
2019	63,156.66	-1.70%	-1092.2	849,028	5,319,557	65,846.80	-0.66%	-436.9	339,611	3,228,420	2,690.14	-509,417	-2,091,138	10%	50,942	-458,475	-1,882,024			
2020	62,083.00	-1.70%	-1073.7	834,594	6,154,151	65,417.34	-0.65%	-429.5	333,838	3,562,257	3,334.34	-500,757	-2,591,894	10%	50,076	-450,681	-2,332,705	363,662		545,493
2021	61,027.58	-1.70%	-1055.4	820,406	6,974,557	64,995.17	-0.65%	-422.2	328,162	3,890,420	3,967.59	-492,244	-3,084,138	10%	49,224	-443,019	-2,775,724			
2022	59,990.12	-1.70%	-1037.5	806,459	7,781,017	64,580.18	-0.64%	-415.0	322,584	4,213,003	4,590.07	-483,876	-3,568,013	10%	48,388	-435,488	-3,211,212	351,403	139,962	667,067
2023	58,970.28	-1.70%	-1019.8	792,749	8,573,766	64,172.25	-0.63%	-407.9	317,100	4,530,103	5,201.97	-475,650	-4,043,663	10%	47,565	-428,085	-3,639,297			
2024	57,967.79	-1.70%	-1002.5	779,273	9,353,039	63,771.25	-0.62%	-401.0	311,709	4,841,812	5,803.46	-467,564	-4,511,226	10%	46,756	-420,807	-4,060,104	339,557		509,335
2025	56,982.34	-1.70%	-985.5	766,025	10,119,064	63,377.07	-0.62%	-394.2	306,410	5,148,222	6,394.74	-459,615	-4,970,841	10%	45,962	-413,654	-4,473,757			
2026	56,013.64	-1.70%	-968.7	753,003	10,872,066	62,989.59	-0.61%	-387.5	301,201	5,449,423	6,975.96	-451,802	-5,422,643	10%	45,180	-406,621	-4,880,379	328,110		492,165
2027	55,061.41	-1.70%	-952.2	740,202	11,612,268	62,608.70	-0.60%	-380.9	296,081	5,745,504	7,547.29	-444,121	-5,866,764	10%	44,412	-399,709	-5,280,088			
2028	54,125.36	-1.70%	-936.0	727,618	12,339,886	62,234.28	-0.60%	-374.4	291,047	6,036,551	8,108.92	-436,571	-6,303,335	10%	43,657	-392,914	-5,673,001	317,049	271,828	747,402
2029	53,205.23	-1.70%	-920.1	715,249	13,055,135	61,866.23	-0.59%	-368.1	286,099	6,322,651	8,661.00	-429,149	-6,732,484	10%	42,915	-386,234	-6,059,236			
2030	52,300.74	-1.70%	-904.5	703,089	13,758,224	61,504.43	-0.58%	-361.8	281,236	6,603,886	9,203.69	-421,854	-7,154,338	10%	42,185	-379,668	-6,438,904	306,361		459,542
2031	51,411.63	-1.70%	-889.1	691,137	14,449,361	61,148.79	-0.58%	-355.6	276,455	6,880,341	9,737.16	-414,682	-7,569,020	10%	41,468	-373,214	-6,812,118			
2032	50,537.63	-1.70%	-874.0	679,388	15,128,748	60,799.19	-0.57%	-349.6	271,755	7,152,096	10,261.56	-407,633	-7,976,652	10%	40,763	-366,869	-7,178,987	296,033		444,050
2033	49,678.49	-1.70%	-859.1	667,838	15,796,586	60,455.53	-0.57%	-343.7	267,135	7,419,231	10,777.04	-400,703	-8,377,355	10%	40,070	-360,632	-7,539,620			
2034	48,833.96	-1.70%	-844.5	656,485	16,453,071	60,117.72	-0.56%	-337.8	262,594	7,681,825	11,283.76	-393,891	-8,771,246	10%	39,389	-354,502	-7,894,121	286,054	368,971	798,051
2035	48,003.78	-1.70%	-830.2	645,324	17,098,395	59,785.65	-0.55%	-332.1	258,130	7,939,955	11,781.87	-387,195	-9,158,441	10%	38,719	-348,475	-8,242,596			
2036	47,187.72	-1.70%	-816.1	634,354	17,732,749	59,459.22	-0.55%	-326.4	253,742	8,193,696	12,271.51	-380,612	-9,539,053	10%	38,061	-342,551	-8,585,148	276,411		414,616
2037	46,385.52	-1.70%	-802.2	623,570	18,356,319	59,138.35	-0.54%	-320.9	249,428	8,443,124	12,752.82	-374,142	-9,913,195	10%	37,414	-336,728	-8,921,875			
2038	45,596.97	-1.70%	-788.6	612,969	18,969,289	58,822.93	-0.53%	-315.4	245,188	8,688,312	13,225.96	-367,782	-10,280,976	10%	36,778	-331,003	-9,252,879	267,092		400,639
2039	44,821.82	-1.70%	-775.1	602,549	19,571,837	58,512.87	-0.53%	-310.1	241,020	8,929,332	13,691.04	-361,529	-10,642,506	10%	36,153	-325,376	-9,578,255			
2040	44,059.85	-1.70%	-762.0	592,305	20,164,143	58,208.08	-0.52%	-304.8	236,922	9,166,254	14,148.23	-355,383	-10,997,889	10%	35,538	-319,845	-9,898,100	258,089	438,059	825,191
2041	43,310.83	-1.70%	-749.0	582,236	20,746,379	57,908.47	-0.51%	-299.6	232,894	9,399,148	14,597.64	-349,342	-11,347,231	10%	34,934	-314,408	-10,212,508			
2042	42,574.55	-1.70%	-736.3	572,338	21,318,717	57,613.96	-0.51%	-294.5	228,935	9,628,084	15,039.41	-343,403	-11,690,634	10%	34,340	-309,063	-10,521,570	249,388		374,082
2043	41,850.78	-1.70%	-723.8	562,608	21,881,326	57,324.45	-0.50%	-289.5	225,043	9,853,127	15,473.67	-337,565	-12,028,199	10%	33,757	-303,809	-10,825,379			
2044	41,139.32	-1.70%	-711.5	553,044	22,434,370	57,039.87	-0.50%	-284.6	221,218	10,074,345	15,900.55	-331,826	-12,360,025	10%	33,183	-298,644	-11,124,023	240,981		361,471
2045	40,439.95	-1.70%	-699.4	543,642	22,978,012	56,760.12	-0.49%	-279.7	217,457	10,291,802	16,320.17	-326,185	-12,686,211	10%	32,619	-293,567	-11,417,590			
2046	39,752.47	-1.70%	-687.5	534,400	23,512,413	56,485.13	-0.48%	-275.0	213,760	10,505,562	16,732.66	-320,640	-13,006,851	10%	32,064	-288,576	-11,706,166	232,857	484,618	833,904
2047	39,076.68	-1.70%	-675.8	525,316	24,037,728	56,214.81	-0.48%	-270.3	210,126	10,715,688	17,138.13	-315,189	-13,322,040	10%	31,519	-283,670	-11,989,836			
2048	38,412.38	-1.70%	-664.3	516,385	24,554,114	55,949.09	-0.47%	-265.7	206,554	10,922,242	17,536.71	-309,831	-13,631,871	10%	30,983	-278,848	-12,268,684	225,007		337,511
2049	37,759.36	-1.70%	-653.0	507,607	25,061,720	55,687.88	-0.47%	-261.2	203,043	11,125,285	17,928.52	-304,564	-13,936,435	10%	30,456	-274,108	-12,542,792			
2050	37,117.46	-1.70%	-641.9	498,977	25,560,698	55,431.12	-0.46%	-256.8	199,591	11,324,876	18,313.66	-299,386	-14,235,822	10%	29,939	-269,448	-12,812,240	217,422		326,133
																				7,893,233