United Nations Development Programme
Country: Colombia
PROJECT DOCUMENT

Institutional and policy strengthening to increase biodiversity conservation on production lands (PL) in Colombia

UNDAF Outcome(s):	National and regional capacity consolidated for the knowledge, conservation and sustainable use of biodiversity and for the preservation, management and recovery of the ecosystems in order to guarantee the maintenance of environmental assets and services
UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:	National capacities are strengthened in order to promote environmental sustainability, comprehensive disaster risk management and sustainable spatial planning
Expected CP Outcome(s):	Public and Civil Society Organizations strengthen their capacity to formulate and implement Environmental Management programs and initiatives that guarantee the provision and maintenance of environmental goods and services, with an emphasis on conservation, restoration, sustainable use of strategic ecosystems processes; and provision, rational, and efficient use
Executing Entity/Implementing Partner:	The Nature Conservancy
Implementing Entity/Responsible Partners:	United Nations Development Program (UNDP) Colombia

Brief Description

Colombia is one of 12 countries in the world with the highest indices of biodiversity; just 0.8% of its land surface contains approximately 15% of all known terrestrial species. Colombia is home to 1,870 species of birds; 754 species of amphibians; and between 40,000 and 55,000 species of plants. Colombia is also the country in Latin America with the highest number of ecological regions (18) and ecosystems (65). The Llanos is a nationally and internationally recognized ecoregion with some of the world's richest tropical grasslands. In Colombia the Llanos contains unique natural environments that are shared with Venezuela as well as biodiversity of global and regional significance. The last decades have seen drastic changes that threaten biodiversity in the Llanos, including the loss or transformation of habitat due to the expansion of intensive agriculture, water and soil pollution, the introduction of non-native species, and the growing threat of climate change. The project objective is to promote voluntary biodiversity conservation practices on cattle ranching and forestry production lands (PL) through a revised legal/policy framework and institutional strengthening, and with the application of a pilot program in the Llanos region of Colombia. The project objective will be achieved through three interrelated outcomes that will generate benefits for global-, national-, and local-level biodiversity. These benefits include: a) an increase in habitat availability for resident and migratory species in natural savannas (high plains and flooded savannas), grasslands, and gallery forests through the promotion and establishment of biodiversity-friendly production practices in 40,000 hectares (ha) of PL, including the establishment of 10,000 ha of new private reserves; b) improvement in the quality of water and soils through the reduced use of agrochemicals, spatial arrangements with native species for production systems that make use of introduced species, and management of wastes generated by the cattle production system; and c) regulation of climate change through the development of sustainable conservation-production models that will incorporate landscape management tools (e.g., live fences [hedges], wind-breaking barriers, agroforestry systems, soil stability, and biological corridors) and a stable carbon stock. The above will be framed within a participatory, awareness-raising, and training strategy for producers and decision-makers at the local, municipal, and regional levels of the forestry and cattle ranching sectors to mitigate economic, social, and environmental impacts of non-sustainable production and to promote the implementation of sustainable and biodiversity-friendly production models. The project will contribute to the conservation of biodiversity of global importance, including mammals, resident and migratory birds, and reptiles whose habitats will also be protected through this project. The ecosystem representation of the Llanos ecoregion in the National Protected Areas System will be increased through the creation of private reserves, the establishment of connectivity through biological corridors, and the establishment of additional hectares in PL conservation around or between public protected areas.

Programme Period:	2010-2014
Atlas Award ID:	00060909
Project ID:	00076894
PIMS #	4208
Start Date:	May 2011
End Date:	May 2014
Management Arrangements	NIM
PAC Meeting Date	_____

Total resources required	**3,135,728**
Total allocated resources:	*1,866,410*
– GEF	974,727
– TNC	349,479
– WWF	40,000
– Fundación Pantera	55,000
– Acción Verde	30,000
– Paz de Ariporo Livestock Committee	8,108
– FAAN	238,122
– Government of Casanare	69,378
– CORPORINOQUIA	101,596
In-kind contributions:	*1,269,318*
– TNC	150,521
– WWF	135,300
– Fundación Natura	150,000
– RESNATUR	150,000
– Fundación Pantera	145,000
– Fondo Patrimonio Natural	200,000
– UAESPNN	90,862
– Paz de Ariporo Livestock Committee	72,973
– Acción Verde	20,000
– FAAN	61,878
– Government of Casanare	92,784

Agreed by (Government):

Date/Month/Year

Agreed by (Executing Entity/Implementing Partner):

Date/Month/Year

Agreed by (UNDP):

Date/Month/Year

LIST OF ACRONYMS

AOPRCS	Articulator Organization of Private Reserves of Civil Society
APR	Annual Project Report
ASOCARS	Association of Regional Autonomous Corporations
AWP	Annual Work Plan
BPG	Best Cattle Farming Practices
CAR	Regional Autonomous Corporation
CBD	Convention on Biological Diversity
CIF	Forestry Incentive Certificate
CIPAV	Fundación Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria
CONPES	National Council of Economic and Social Policy
CORPOICA	Agriculture Research Corporation
CORPORINOQUIA	Regional Autonomous Corporation for the Orinoco
CPAP	Country Program Action Plan
EOT	Land Zoning Scheme
FAAN	Fondo para la Acción Ambiental y la Niñez
FAO	Food and Agriculture Organization (United Nations)
FEDEGAN	Colombian Livestock Federation
FEDEMADERAS	National Federation of Timber Industries
FEDEMUNICIPIOS	Colombian Federation of Municipalities
FEDEPALMA	National Federation of African Palm Growers
FHV	Fundación Horizonte Verde
FINAGRO	Agriculture Financing Fund
FNC	Fundación Natura Colombia
FSC	Voluntary Forest Certification
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GoC	Government of Colombia
GSP	General System of Participation
ha	Hectare
ICR	Rural Capitalization Incentive
IADB	Inter-American Development Bank
IAVH	Alexander von Humboldt Research Institute
INCODER	Colombian Institute of Rural Development
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
IW	Inception Workshop
km^2	Square Kilometer
M&E	Monitoring and Evaluation
MADR	Ministry of Agriculture and Rural Development
MAVDT	Ministry of Environment, Housing, and Territorial Development
NGO	Non-Governmental Organization
NIM	National Implementation Modality
NNPS	Natural National Parks System
NSPES	National Strategy for Payment for Ecosystem Services
OSHAS	Occupational Health and Safety Management System
PA	Protected Area
PARBO	Biodiversity Action Plan of the Orinoco Basin
PAT	3-Year Action Plan
PBOT	Land Zoning Base Plan

LIST OF ACRONYMS, CONTINUED

PES	Payment for Ecosystem Services
PGAR	Regional Management Plan
PIF	Project Identification Form
PIR	Project Implementation Review
PL	Production Lands
PMU	Project Management Unit
POMCAS	Management Plan for Watersheds
POT	Land Zoning Plan
PPG	Project Preparation Grant
PRCS	Private Reserves of Civil Society
PROCUENCA	Forestry Project for the Watershed of the Chinchiná River
RAS	Sustainable Agricultural Network
RCU	Regional Coordination Unit
RESNATUR	Natural Reserves Network of the Civil Society
SBAA	Standard Basic Assistance Agreement
SC	Steering Committee
SENA	National Learning Service
SINA	National Environmental System
SINAP	National System of Protected Areas
SIRAP	Regional Protected Areas System
SOP	Standard Operating Procedure
TNC	The Nature Conservancy
ToR	Terms of Reference
TPC	Tripartite Committee
UAESPNN	Administrative Unit of the Protected Areas System of Colombia
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNDP CO	United Nations Development Program Country Office
USD	U.S. Dollars
WB	World Bank
WWF	World Wide Fund for Nature

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1. SITUATION ANALYSIS

1.1. Context and global significance

Environmental context

1. Colombia is one of 12 countries in the world with the highest indices of biodiversity; just 0.8% of its land surface contains approximately 15% of all known terrestrial species. Colombia is home to 1,870 species of birds; 754 species of amphibians; and between 40,000 and 55,000 species of plants. Colombia is also the country in Latin America with the highest number of ecological regions (18) and ecosystems (65). The Llanos ecoregion, located in both Colombia and Venezuela, has been identified as one of the 200 ecoregions given worldwide priority for the Living Planet Campaign of the World Wide Fund for Nature[1] (WWF) (see map in Figure 1). The Llanos ecoregion has an area of 355,112 square kilometers (km^2), 30% of which is in the Colombian region of the Orinoco (generally referred to as the Llanos) in the eastern portion of the country. The Llanos ecoregion represents a typical Neotropical savanna where climate, geology, soil, and fire variations are the main determinants of the four large subregions of savanna ecosystems: foothills, high plains, flooded savannas, and eolian or wind plains. The density of trees on the savannas, apart from the gallery forests, varies from low to fairly dense. The Llanos ecoregion is located within the watershed of the Orinoco River and includes the Departments of Vichada (covering the entire territory of the department), Meta (covering 62% of departmental territory), Casanare (covering 97% of departmental territory), and Arauca (covering 91% of departmental territory).

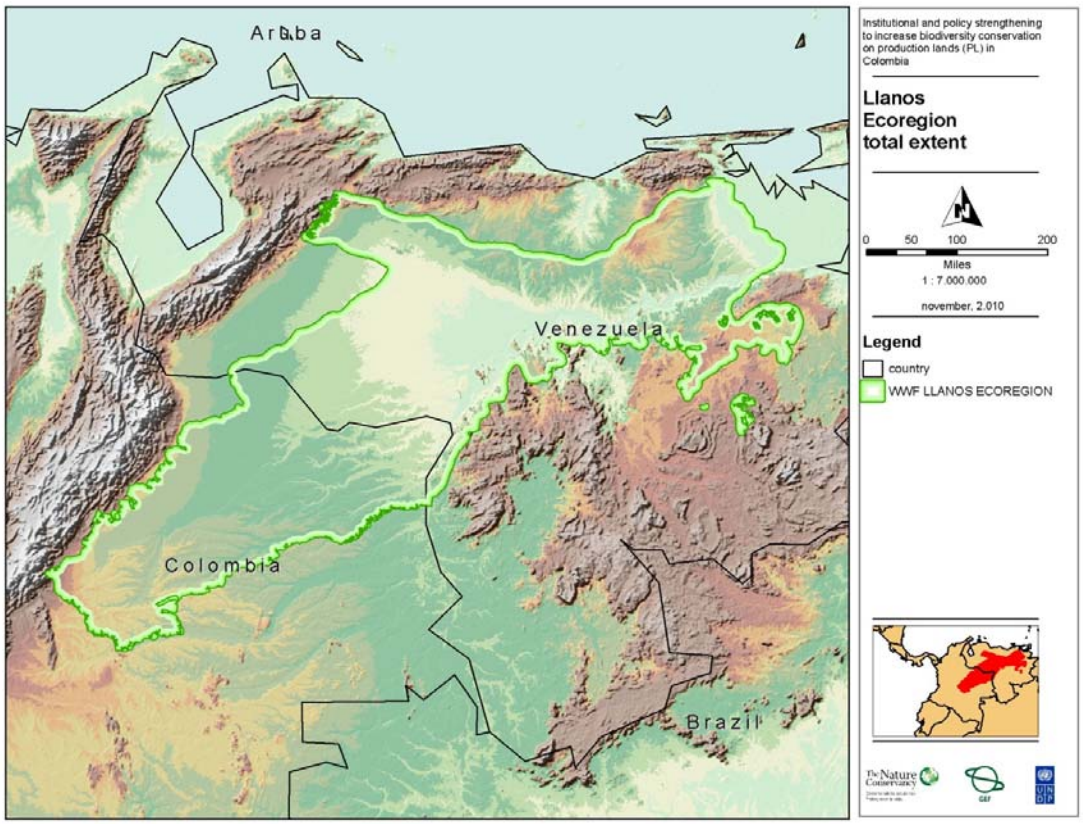


Figure 1. Location of the Llanos ecoregion.

[1]WWF. 2000. A workbook for conducting biological assessments and developing biodiversity visions for ecoregion-based conservation. Part I: Terrestrial Ecoregions. WWF, Washington.

Project Area

2. The project will focus on three areas in the Llanos ecoregion representing both seasonally flooded savannas and high plains (see map in Figure 2). The first focus area, which covers approximately 1,102,629 hectares (ha), includes the municipalities of Paz de Ariporo and Hato Corozal, located in the Department of Casanare. This focus area includes forests, seasonally flooded savannas, and wetlands of the Ariporo River, Picapico Creek, and Hermosa Creek. The area is characterized by ecosystems of gallery forests, savanna forests, savannas, and flooded forests with aquatic vegetation. The second focus area, located in the Department of Vichada, covers approximately 786,799 ha and includes the municipalities of Puerto Carreño and La Primavera. This area comprises savannas and forests of the Bita River, Liqui River, and Negro Creek, as well as high plain ecosystems, gallery forests, and flooded forests. The third focus area, located in the Orocué municipality in the Department of Casanare, covers 467,909 ha. This focus area is part of the forests and savannas of Orocué and includes well drained and poorly drained savanna ecosystems, savanna forests, gallery forests with different flooding levels, and the presence of aquatic vegetation and grasslands.

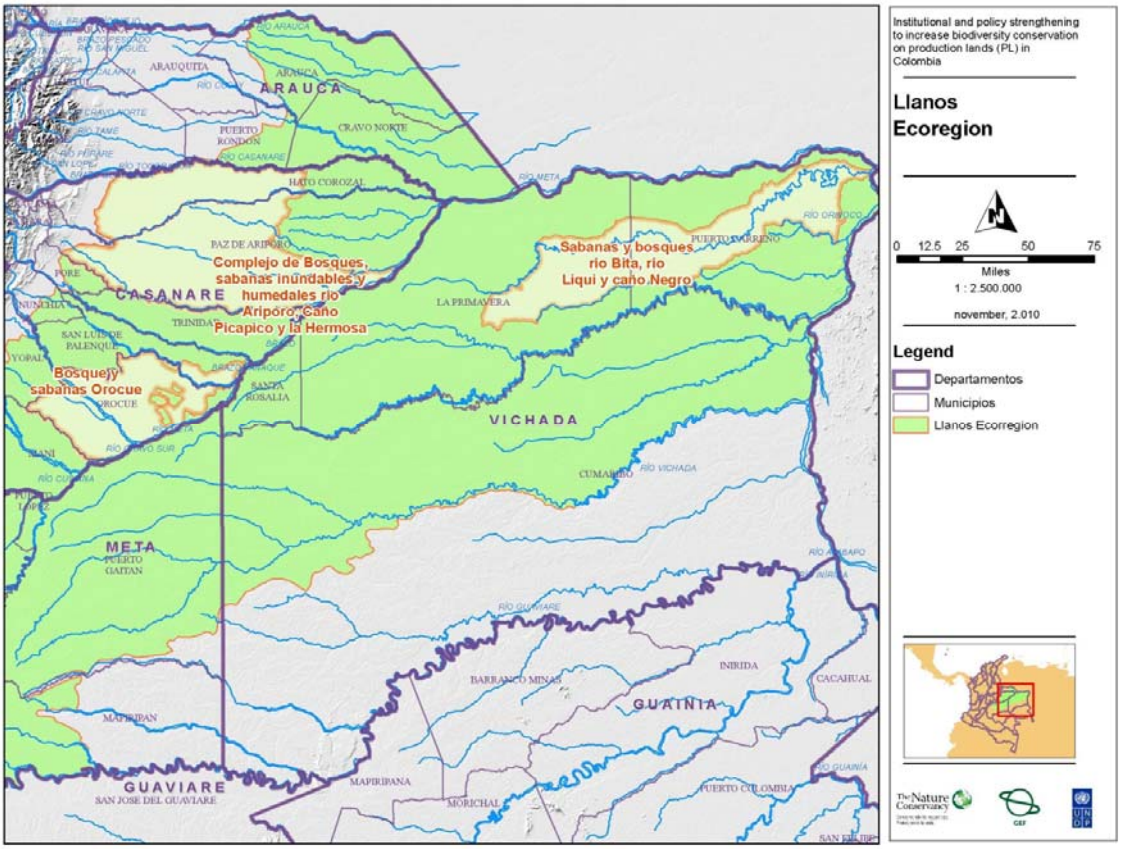


Figure 2. Focus areas in the Llanos ecoregion.

3. The focus areas were selected using the criteria of uniqueness and value of biodiversity in the Llanos, as well as the results of previous work on the identification of critical areas for conservation: Biodiversity Action Plan of the Orinoco Basin (PARBO)[2], Biological Conservation Priorities in Colombia[3], Migratory Birds of the Orinoco[4], Criteria for Declaration of Natural Areas[5], Environmental Planning of the Hydrocarbon Sector for the

[2] Correa H.D., Ruiz S.L. y Arévalo L.M. (eds). 2006. Plan de Acción en Biodiversidad de la cuenca del Orinoco-Colombia/ 2005-2015-Propuesta técnica. Bogotá D.C. Corporinoquia, Cormacarena, IAvH, Unitrópico, Fundación Omacha,Fundación Horizonte Verde, Universidad Javeriana, Unillanos, WWF-Colombia, GTZ-Colombia, Bogotá,Colombia. 330 p.

[3] Fandiño-Lozano, M. & W. van Wyngaarden, 2005. Prioridades de Conservación Biológica para Colombia. Grupo ARCO, Bogotá. 186 pp. con mapa de ecosistemas de Colombia.

[4] TNC & WWF. 2010. Providing Safe Haven: Habitat Conservation for Migratory Birds in the Orinoco River Basin. Final report to the U.S. Fish and Wildlife Service. Work Document.

Conservation of Biodiversity in the Orinoco Savannas of Colombia[6], Administrative Unit of the Protected Areas System of Colombia (UAESPNN): Shortcomings in the National System of Protected Areas (SINAP)[7], and Bi-National Workshops for Conservation[8]. Information from these studies was incorporated into a model overlaying biological data and information on conservation actions taking place in the Llanos onto a Geographic Information System (GIS) (see Figure 3). A relative value of importance was given to each layer of information with the objective of determining the areas with the greatest representation of the Llanos ecoregion. The final selection was made during a workshop for experts, with representatives of UAESPNN, The Nature Conservancy (TNC), Natural Reserves Network of the Civil Society (RESNATUR), and Fundación Natura Colombia (FNC) in attendance.

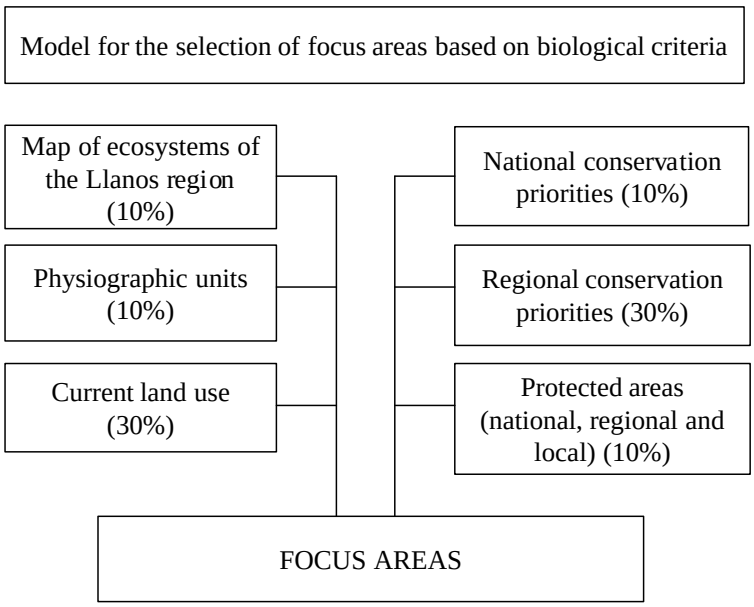


Figure 3. Model for the selection of the project focus areas.

Global Significance

4. The Llanos is a nationally and internationally recognized ecoregion with some of the world's richest tropical grasslands. In Colombia the Llanos contains unique natural environments that are shared with Venezuela as well as biodiversity of global and regional significance, which is comparable to the biodiversity present in the Pantanal of Brazil, Bolivia, and Paraguay[9]. Over 2,126 species of plants have been identified, belonging to 807 genera and 180 families. At the species level, the more diverse families are *Rubiaceae* (705), *Leguminosae* (255), *Poaceae* (214), and *Cyperaceae* (96), while the families with the larger number of genera are *Rubiaceae* (105), *Leguminosae* (76), *Poaceae* (66), and *Asteraceae* (41). The trend in the distribution within subregions shows that the high plains (Subregion 3) has the largest number of species (1,505) belonging to 653 genera and

[5] Biocolombia. 2000. Criterios para la declaratoria de áreas naturales protegidas de carácter regional y Local. Informe Técnico.
[6] ANH, Agencia Nacional de Hidrocarburos – ANH, Instituto de Investigación de Recursos Biológicos Alexander von Humboldt – IAvH, The Nature Conservancy – TNC Instituto de Hidrología, Meteorología y Estudios Ambientales – Ideam. 2007. Planeación ambiental del sector hidrocarburos para la conservación de la biodiversidad en los llanos de Colombia.
[7] UAESPNN. Vacíos de Conservación del sistema de Áreas Naturales Protegidas de Colombia, Documento de trabajo.
[8] Lasso, C., M. Morales, S. Usma & F. Trujillo. 2009. Taller binacional "identificación de las áreas prioritarias para la conservación y uso sostenible de la biodiversidad en la cuenca del Orinoco" síntesis de los principales resultados.
[9] Ruiz, D. 2010. La biodiversidad en la ecorregión de los llanos de Venezuela y las prioridades para su conservación. http://redalyc.uaemex.mx/pdf/540/54013215.pdf

155 families; followed by the foothills subregion with 754 species, 393 genera, and 127 families; and last, the alluvial plains subregion with 232 species, 173 genera, and 72 families[10].

Even though the Llanos is an ecoregion rich in vertebrate fauna, specific data regarding these species and their population sizes are lacking. There are 119 species of reptiles in the Llanos, 45 of which belong to the snake suborder, representing 39 genera and 7 families. The family *Colubridae* is the most diverse family in the region with 25 genera and 38 species. There are 58 species within the *Sauria* suborder, belonging to 5 families and 27 genera. The most diverse family of this suborder is *Iguanidae*, with 9 genera and 21 species. *Anolis* is the most diverse genera with 10 species. Turtles and caimans stand out among the reptiles represented in the Llanos, with endangered species such as the Big-Headed Amazon River turtle (*Peltocephalus dumerilianus*), the Giant South American turtle (*Podocnemis expansa*), and the Orinoco crocodile (*Crocodylus intermedius*)[11]. Bird life in the region is also particularly diverse, with 61 families, 376 genera, and 644 species reported. The most diverse family is *Tyrannidae* with 54 genera and 80 species. The genera with the largest number of species are *Myrmotherula* with 9 species and *Tangara* with 8 species[12]. In addition, there are 5 families, 15 genera, and 28 species of amphibians. The most diverse family is *Hylidae* with 5 genera and 13 species, while the richest genera in number of species is *Leptodactylus* with 5 species[13]. There are 190 known species of mammals in the Llanos, most notably the giant river otter (*Pteronura brasiliensis*), ocelot (*Felis pardalis*), cougar (*Felis concolor*), jaguar (*Pantera onca*), armadillo (*Dasypusnovem cintus*), deer (*Odocoileus virginianus*), paca (*Agouti paca*), wild pigs (*Tayassu tajacu*), tapir (*Tapirus terrestris*), manatee (*Trichechus manatus*), and the capybara (*Hydrochaeris hydrochaeris*)[14]/[15].

5. The protection of biodiversity in Colombia has taken place largely through the establishment of the SINAP. The total coverage of protected areas (PAs) in Colombia is 11,624,540.9 ha, or approximately 12% of the country. However, there are ecoregions and ecosystems that are not well represented in the SINAP, such as the Llanos ecoregion, which has less than 4% (194,300.5 ha) of its territory under some type of protection. The establishment of Private Reserves of Civil Society (PRCS) has complemented, connected, and expanded existing public PAs, as well as contributed to the consolidation of buffer zones. There are ecoregions where the establishment of PRCS is the only viable conservation strategy, especially in areas where biodiversity is present in production lands (PL). In Colombia, the PRCS are organized into networks and articulated under organizations of PRCS (or the Articulator Organization of PRCS [AOPRCS]), which may operate nationally or locally. The leading organization in this field is RESNATUR, a national non-governmental organization (NGO) that has 14 regional branches, 16 NGOs that support its work with PRCS, and more than 246 private reserves for the conservation of biodiversity (covering 80,000 ha). The Orinoco branch of RESNATUR has 32 reserves (30,300 ha) and is coordinated by the Fundación Horizonte Verde (FHV). In addition, the UAESPNN and local environmental authorities are developing activities to promote the conservation of biodiversity on private lands and the creation of PRCS. Existing PAs in the Departments of Casanare and Vichada are listed below.

National Category of PA	Location	Name	Area (ha)
National Park	Vichada	El Tuparro	554,841
National Forest Reserve	Casanare	Río Satocá	4,152
Regional & Municipal Reserve	Casanare	San Miguel de Farallones	No data
Regional & Municipal Reserve	Casanare	Cuenca hidrográfica del Río Unete	No data

[10] Rangel, O; H. Sanchez, M.; P. Lowy-C., M. Aguilar-P. & A. Castillo. 1995. Región de la Orinoquía. In: J. O. Rangel-Ch. (cd.) Colombia Diversidad Biótica I. Instituto de Ciencias Naturales. Universidad - Nacional de Colombia. Bogotá, 1995, pp. 239-254.

[11] Acosta-Galvis 2000, Instituto de recursos biológicos Alexander Von Humboldt [IAVH], 1999.

[12] Rangel et al 1995 (5).

[13] Rangel et al, 1995 (5).

[14] Cortés, A. 1986. Las tierras de la Orinoquía, Capacidad de uso actual y futuro. Universidad Jorge Tadeo Lozano, Bogotá.

[15] Batipste, L.G. y A.I. Ariza. 2008. Ecología de las sabanas inundables del Casanare. In: Memorias de 1º congreso internacional producción y desarrollo sostenible versión sabanas inundables y 1º simposio recursos genéticos del trópico húmedo. Universidad Cooperativa de Colombia Facultad de Medicina Veterinaria y Zootecnia - Sede Arauca, Arauca, 29, 30 y 31 de octubre de 2008.

National Category of PA	Location	Name	Area (ha)
Regional & Municipal Reserve	Casanare	Microcuencas La Cascada, San Juan y Monquira	No data
Regional & Municipal Reserve	Casanare	Santiago de las Atalayas	No data
Regional & Municipal Reserve	Casanare	Laguna de Tinije	No data
Regional & Municipal Reserve	Casanare	Reserva Natural Protectora Cuenca Quebrada Las Guamas	2,629
Regional & Municipal Reserve	Casanare	Reserva Natural y Patrimonio Ecológico Laguna y Caño Tinje	No data
Regional & Municipal Reserve	Casanare	Reserva Forestal Islas Antiguas y Riberas del río Cuisiana	No data
Regional & Municipal Reserve	Casanare	Reserva Natural Protectora Quebrada El Vainillal	No data
Regional & Municipal Reserve	Casanare	Río Satoca	4,200
Regional & Municipal Reserve	Casanare	Reserva Natural Protectora nacimientos de los río Bojaba, Chiquito, Calañitas, Banadías, San Joaquín, Miguel, Satoca, y Quebrada La Para	No data
Regional & Municipal Reserve	Casanare	Reserva Forestal La Tablona	1,420
Regional & Municipal Reserve	Casanare	Parque Municipal La Iguana	No data
Private Reserve	Vichada	Serranias de Casablanca	350
Private Reserve	Vichada	Bojonawi	3,881
Private Reserve	Vichada	Rancho Santa Barbara 1 y 2	3,366
Private Reserve	Arauca	El Torreño	993
Private Reserve	Vichada	La Ventana	1,294
Private Reserve	Vichada	Villa Miriam	1,774
Private Reserve	Vichada	Nimajay	2,012
Private Reserve	Vichada	Pitalito	3,202
Private Reserve	Vichada	Wakuinali	2,384
Private Reserve	Casanare	La Esperanza 1 y 2	1,600
Private Reserve	Casanare	La Gloria	2,563
TOTAL			**590,661**

Socioeconomic context

6. The Colombian Llanos, which comprises four departments (Arauca, Casanare, Meta, and Vichada), has a very diverse population, including indigenous communities, Afro-Colombians, peasants, and traditional farmers, as well as settlers from other parts of the country. There are approximately 48,000 indigenous people, located mostly in Vichada and Meta, and approximately 37,000 Afro-Colombians, located mostly in Meta and Arauca[16]. The traditional farmers of the Llanos are characterized as a population that descended from the ancient settlers and/or those who settled in the territory several generations ago, and who refer to themselves as the original inhabitants of the savanna. They live in the urban areas of the municipalities and on the farms and cattle ranches. The new settlers come from departments such as Valle del Cauca, Tolima, Huila, and Cundinamarca, and are characterized as pioneers from other parts of the country settling mainly in the Andes foothills and the land once considered the wastelands of the Orinoco Basin. They are often referred to by the department of their origin[17].

[16]Viloria, J. 2009. "Geografía económica de la Orinoquia." Banco de la República. N 113. Documentos de trabajo sobre economía regional.

[17] Vásquez, M. de la L.. 2002 ."De la identidad establecida a la búsqueda de la identidad: estrategias de representación y des marginalización en el municipio de Vistahermosa – meta". Informe Final. Universidad de los Andes, CESO, Colciencias. Bogotá, Agosto.

7. The estimated populations of Meta (870,876), Casanare (325,596), and Vichada (62,013) for 2010 combine for a total population of 1,252,344; representing approximately 2.75% of the population of Colombia[18]. Currently, population growth in the Llanos is the highest in the country due to migration. It has been estimated that the Llanos will constitute more than 10% of the total population of Colombia by the year 2020[19]. The traditional *Llaneros* (as the people of Llanos region are known) have established a way to use and manage the savannas without causing a strong impact, in part due to the fact that there are huge areas of available land. However, with the arrival of new settlers, there has been increased pressure on the land that has promoted the substitution of native grasslands with non-native species of grass and tree plantations.

8. The Llanos includes small properties in the foothills and intermediate-sized cattle ranches, such as those found in the municipality of Paz de Ariporo[20], which manage an average of approximately 1,800 to 2,500 ha of seasonally flooded areas. In addition, there are larger cattle ranches in the high plains that employ extensive cattle production activities in properties of up to 10,000 ha. It is important to mention that the Llanos has a high percentage of untitled lands. For example, in Casanare (which covers 44,490 km²) only 38% of the land has been titled to owners[21]. This high percentage of untitled lands is a key constraint to obtaining loans for agricultural activities, tax exemptions, and economic incentives provided by the government, and also creates a lack of willingness to use or manage the natural resources in a sustainable manner.

Productive sectors

9. The Llanos region has undergone a significant change in land use as a consequence of the expansion of agricultural activities, and at the expense of the region's savannas, forests and gallery forests, grasslands, and wetlands[22]. Cattle production covers the largest area (5.5 million ha), followed by rice plantations (190,000 ha), oil palm plantations (87,000 ha), and tree plantations (30,000 ha)[23]. Agriculture dominated the economy of the Llanos until the 1980s, when oil production in the Departments of Casanare and Arauca became the central economic activity in the region. Casanare became a gas-producing department, and in Meta and Vichada the services sector superseded the importance of agriculture[24]. In 2007, agriculture represented 15.91% of Meta's Gross Domestic Product (GDP), 6.57% of Casanare's GDP, 49.11% of Vichada's GDP, and 23.25% for Arauca. The economy of the Llanos represents 5.5% of the Colombian national GDP[25]. It should be mentioned that the market competitiveness of traditional agricultural products is low due to the region's isolation, its low soil fertility, and the scarcity of water in the dry season.

10. According to existing land use information, pasture lands cover approximately 5.5 million ha, or 34% of the entire Llanos region. Between 2001 and 2008, the area of land converted to pasture lands was increased by more than 1.5 million ha[26]. Traditionally, cattle production activities implemented in the savannas, mainly for the breeding and raising of livestock, followed extensive farming practices. In Vichada one head of cattle per 10 ha[27] is the average carrying capacity. Meta and Casanare have a carrying capacity of between 1.7 and 2.1 ha per head of cattle. In these departments the trend towards intensive farming is apparent, and is mainly related to confined cattle production systems which require stabling and mechanization as well as the replacement of native grasses with introduced species such as *Brachiaria sp*. Approximately 1.8 million ha of savannas have been replaced with non-native species of grass in Meta during the last decades. Given the adaptability of

[18] Proyección Poblacional DANE.

[19] Corpes Orinoquia. Orinoquia hacia el siglo XXI. S.L., S.E., 1994.

[20] Secretaria de Agricultura de Casanare, Informe técnico ganadero, 2005.

[21] Correa, H. D, Ruiz, S. L. y Arévalo, L. M. (eds) 2005. Plan de acción en biodiversidad de la cuenca del Orinoco – Colombia / 2005 - 2015 – Propuesta Técnica. Bogotá D.C.: Corporinoquia, Cormacarena, I.A.v.H, Unitrópico, Fundación Omacha, Fundación Horizonte Verde, Universidad Javeriana, Unillanos, WWF - Colombia, GTZ – Colombia.

[22] Baptiste et al. 2008 (10).

[23]Rodríguez, M., G. Andrade, L.G. Castro, A. Durán, G. Rudas, A. Uribe y E. Wills. 2009. "La mejor Orinoquia que podemos construir – Elementos para la sostenibilidad ambiental del desarrollo". Corporinoquia – Universidad de los Andes – Foro Nacional Ambiental – Friedrich Ebert Stiftung (ESCOL)

[24]Viloria 2009 (11).

[25]Benavides, J. 2010. El desarrollo económico de la Orinoquia. Como aprendizaje y construcción de instituciones. Corporación Andina de Fomento /CAF) y Fedesarrollo.

[26]Fedegán. 2007. Reportes de ciclos de vacunación de ganado bovino.

[27] Viloria, J. 2009 (11).

Brachiaria sp. to the environment of the Llanos, it has allowed an increase in the cattle carrying capacity by approximately 300% in some areas (native savannas 5 to 10 ha/animal, non-native pasture 1.0 to 1.5 animal/ha)[28]. As a result, in these areas intensive farming has significantly transformed natural ecosystems that were previously only slightly impacted by traditional farming practices. Ranchers use incentives, such as loans from the Agriculture Financing Fund (FINAGRO) of the Ministry of Agriculture and Rural Development (MADR) and government banks, to further develop their cattle production systems.

11. The Llanos region has an area of approximately 8.2 million ha that is deemed suitable for forestry activities. In 2007, commercial forestry activities were being carried out on 370,000 ha at the national level; 30,000 ha of which were in the Llanos region. The increase in forestry activities in the Llanos, which has been promoted by an accelerated land entitlement program that was initiated in 1996 under the sponsorship of the government, has led to changes in land cover and land use.

Policy and institutional context

12. Biodiversity conservation in Colombia is the responsibility of both public and private entities. The Colombian Constitution of 1991 provides the basis for the participation of civil society in nature conservation. Therefore, it provides a framework for the design of financial and economic tools that foster conservation on private lands. However, there is no tool or unified legal system that promotes conservation on private lands or their sustainable use in the country.

13. The Ministry of Environment, Housing, and Territorial Development (MAVDT) is the leading agency of the National Environmental System (SINA) and is responsible for the definition of policies and regulations that guide the restoration, conservation, organization, management, and use of natural resources in Colombia. The MAVDT manages the Forestry Incentive Certificate (CIF) for Conservation[29], which is an incentive related to the environmental and social benefits provided by ecosystem conservation efforts by landowners on their lands. The MAVDT and the Regional Autonomous Corporations (CARs) are responsible for issuing the official certificate for tax exemptions granted for investments in environmental management and protection[30]. In 2008 the Government of Colombia (GoC), under the leadership of the MAVDT, drafted a National Strategy for Payment for Ecosystem Services (NSPES) scheme; however, it still lacks the development of its overall legal framework. In addition, the MAVDT serves as the Focal Point for the Global Environment Facility (GEF).

14. The protection of biodiversity in Colombia has been developed largely through the establishment of the SINAP, which is managed by the UAESPNN. The UAESPNN is an entity of the MAVDT but with administrative and financial autonomy. It is in charge of the administration and management of the Natural National Parks System (NNPS). It is also in charge of the coordination and operation of the SINAP. Law 99 of 1993 recognizes the importance of PRCS as the only private conservation category that complements the strategy of conservation through the NNPS. The UAESPNN was assigned the responsibility of registration of the PRCS, on behalf of the GoC.

15. The MADR is responsible for the design, coordination, and adoption of policies, plans, programs, and projects of the agriculture, fishing, and rural development sectors. The MADR manages several incentives to advance those productive sectors, such as the CIF for Forest Plantations[31], which provides up to 50% of funding for new plantations with non-native species and up to 75% for plantations with native species. The MADR also manages the Rural Capitalization Incentive (ICR), which provides funding for agricultural projects and will provide payments of up to 40% of the value of loans obtained for this purpose. The GoC has established the Agricultural Fund, created by Law 21 of 1985, as a guarantee for agricultural loans, which provides support of up to 50 to 100% of their value. The MADR also promotes the development of regional and national forestry chains of production.

[28]Gobernación del Meta, Agenda interna de productividad y competitividad del Meta. Secretaría de planeación y desarrollo territorial. Unidad de estadística y estudios. Documento preliminar. Villavicencio, Abril 2005.
[29]Ley 139/94 sobre el CIF, Art. 253 Parágrafo E.T., reglamentado por el Decreto 900/1997.
[30]Art. 158-2 Estatuto Tributario, reglamentado por el Decreto 3192 de 2003.
[31]Law 139 of 1994 on the CIF, as amended by Law 1377 of 2010 and specific regulations contained in Decree 1824 of 1994, as amended by Decree 1044 of 1996.

16. At the regional level, the CARs are responsible for managing the environment and renewable natural resources within their jurisdictional boundaries, and promote their sustainable development under the existing legal framework and the policies of the MAVDT. The CARs are also responsible for conducting field verification visits of PRSC that are proposed for registration under the UAESPNN. The departmental governments and municipalities have divisions within their administrative structures that govern environmental, agricultural, and livestock issues related to planning and environmental conservation at the local level. It is within the faculties of the municipalities to create tax exemptions for environmental purposes and Payment for Ecosystem Services (PES) programs. Law 14 of 1983 establishes the Land Tax and Law 299 of 1996 provide a basis for the possibility of tax exemptions for conservation efforts on private lands. Article 106 of Law 1151 of 2007 states that municipalities should dedicate 1% of their regular income to financing PES schemes, among other activities.

17. In Colombia there is no adequate land registry system. Given the fact that all tax exemptions and economic incentives for production and conservation on private lands require the landowner to demonstrate a registered land title, this requirement excludes a significant portion of Colombians who could potentially become involved in conservation but are unable to because they have not completed the legal process to obtain a land title.

18. The participation of members of civil society in the promotion of conservation on private lands includes the existence of decentralized research institutes and multiple NGOs. The Alexander von Humboldt Research Institute (IAVH) is in charge of researching biotic and hydrological resources in the continental territory of Colombia. It led the development of the PARBO, during which the Technical Board for the region became consolidated. The Technical Board conducts analyses to determine if the development of the Orinoco region is taking place according to existing conservation needs. The Orinoco region has held the interest of several national and international organizations such as TNC, Universidad Javeriana, WWF, FHV, Unitropico, Fundación Omacha, Fundación Mata de Monte, and others.

19. Even though there is no legal framework for establishing conservation agreements in Colombia, NGOs such as FNC (Santander), Fundación Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria (CIPAV) (Valle del Cauca and coffee-growing region), and FHV (Orinoco) have been leading the development of a legal framework in their respective geographical areas of work. There are also ecological easements (the equivalent of conservation easements) that are voluntary conservation agreements based on Colombia's legal system. For example, Fundación ProAves recorded 12 ecological easements to benefit the Yellow-eared parrot (*Ognorhynchus icterotis*) and other endangered species. In addition, the municipality of Manizales in the Central Andes developed ecological easements as part of the Forestry Project for the Watershed of the Chinchiná River (PROCUENCA) with funding provided by the United Nations Food and Agriculture Organization (FAO).[32] The lack of regulations for conservation agreements could make public investments in private lands more difficult as a consequence of the lack of control over the sustainability of those investments. However, it also represents the biggest opportunity, considering that Colombia's Constitution recognizes free will and therefore, freedom for different contracting forms. It is worth noting that the Land Reform Law (Law 160/94) provides for the possibility of giving land tenure over vacant lands to NGOs for conservation purposes, which, with the appropriate regulations in place, could become a significant step in establishing land trusts in Colombia.

20. Law 99 of 1993 recognizes PRCS as the only category for private lands conservation in Colombia. The PRCS are regulated by Decree 1996 of 1999. Colombia has some laws that place the responsibility of creating incentives for conservation on private lands registered with the MAVDT, including PRCS, under the CARs (Decree 1996/1999). The creation of these reserves also allows landowners to apply for tax benefits.

21. The private sector is represented by associations that work at the national, regional, and local levels. The cattle production sector is part of the Colombian Livestock Federation (FEDEGAN). It represents the collective interests of cattle ranchers before public and private institutions and civil society at the national level. Cattle

[32] The goal of the project is to promote forestry, environmental, economic, and social sustainable development within the framework of shared public-private responsibility, through the consolidation of a productive chain that contributes to the improvement of the quality of life for the people of the region.

ranchers are also organized into Livestock Committees at the departmental and municipal levels, which are registered with FEDEGAN. The National Federation of Timber Industries (FEDEMADERAS) represents the forestry sector in the country. Currently, over 700 businesses are members of FEDEMADERAS. The design and implementation of sustainable production systems remains a priority for these groups (Forestry Associations and Livestock Committees or Associations) as long as it generates economic and competitiveness benefits for their sectors and members.

1.2. Threats, impacts, and root causes

Threats to biodiversity

22. One of the greatest threats currently facing biodiversity conservation in the Llanos of Colombia is the **loss or transformation of habitat** due to the expansion of intensive agricultural practices. This change has led to an increase in unsuitable habitat for native species, reduced population numbers, and negative effects imposed upon migratory species. Environmental characteristics of the Llanos have resulted from a long history of interaction and interdependence between humans and their natural surroundings. The traditional use of the land has created natural ecosystems that are managed in such a way that production activities and biodiversity coexist in a synergetic and harmonious way. These ecosystems maintain a composition and structure that have seen minimal impact by traditional land use practices, and have not varied significantly from their original status[33]. However, this traditional use of the land, based mainly on traditional extensive cattle ranching in natural savannas, is now being replaced by intensive cattle production practices, tree plantations with non-native species, and monoculture crops such as rice and oil palm.

23. **Water and soil pollution** also constitutes a threat to the conservation of biodiversity in the Llanos. The intensive production models of cattle, forestry, rice, and oil palm depend on agrochemicals (fertilizers, herbicides, and pesticides) that are frequently and excessively used. This activity causes a loss of wildlife population and genetic malformations among individuals. In some areas of the Llanos the soil must be fertilized with quicklime added in order to neutralize the acidity and elevate concentrations of nutrients. Vegetative life is cut short because of the use of herbicides and pesticides. Runoff from the agrochemicals contributes to pollution of the soils and drains to water sources, leading to water pollution affecting the aquatic biota and creating ecological unbalances due to excessive nutrients.

24. The introduction of **non-native species** to the Llanos for the development of the productive sector is also a threat to biodiversity in the natural savannas. These invasive species often establish themselves and then proliferate, modifying ecosystems, native species, and their natural habitat. For example, in cattle ranching, the non-native species of grass, *Brachiaria sp*., has gradually taken over the natural grasses of the savannas. This transformation has produced genetic uniformity as monoculture of these grasses is sought through seasonal burns. In addition, the partial or total replacement of native cattle with the Brahman breed, or by combining this breed with breeds adapted to the Llanos environment, has also taken place. In the forestry sector, tree plantations with non-native species have been established in the high plains. Some of the species that have been planted are *Eucalyptus pellita*, *E. tereticornis*, *Pinus caribea*, *Pinus oocarpa*, *Hevea brasiliensis*, and *Anacardium occidentale*. Current regional development policies seek to establish 800,000 ha of tree plantations without any restrictions on the use of non-native species and 7.8 million ha with minor restrictions; however, they do not take into account their impact on the environment. These plantations could generate a change in the structure of the savanna landscape as they are transformed from natural savannas to tree plantations, thereby disrupting natural ecosystem cycles.

25. **Climate change** is a growing threat to the biodiversity of the Llanos due to the changes it can cause in hydrological and water cycles (length and intensity of the rain and dry seasons), which are key for the spatial and temporal distribution of animal and plant species. Estimates indicate that by 2050 the mean temperature in the Llanos will increase by approximately 2.7^{o}C, and precipitation levels are expected to diminish by

[33] Andrade, G., L. Castro.,A. Durán., M. Rodríguez., G. Rudas., E. Uribe y E. Wills. 2009. La Mejor Orinoquía que podemos construir. Elementos para la sostenibilidad ambiental del desarrollo. CORPORINOQUIA- Universidad de los Andes – Foro Nacional Ambiental - FESCOL. Bogotá.

approximately 10 to 20%[34]. Likewise, desertification processes are predicted in the dryer forest areas and savannas.

26. For the selected focus areas the most important threats are:

Focus Area	**Threats**
Forests, flooded savannas, and wetlands of the Ariporo River, Picapico Creek, and Hermosa Creek	Impacts or conflicts from the expansion of the agricultural activities, changes in hydrological systems, fires, climate change, and extraction of forest products.
Savannas and forests of Bita River, Liqui River, and Negro Creek	Fires, climate change, increase in density of roads, tree plantations with introduced species, hunting, loss of ecosystem connectivity.
Forests and savannas of Orocué	Expansion of *Brachiaria sp.*, changes in the hydrological systems, construction of new roads, oil palm and rice fields, existence of introduced species in gallery forests, large-scale production projects, fires, climate change, expansion of the agriculture activities, deforestation, and hunting.

Direct and underlying causes

27. The last decades have seen drastic changes that threaten biodiversity in the Llanos. The main underlying causes of these threats include human population growth, expansion of the agricultural frontier, increased intensity in the agricultural sector, and the efforts made by the GoC to promote production models that are not compatible with the Llanos environment.

28. In the Llanos there has been an **expansion of the agricultural frontier**, caused mostly by the development of tree plantations and the growing intensity of cattle production activities. Cattle production activities are taking place on approximately 5.5 million ha (34% of the Llanos area). Commercial tree plantations currently cover close to 30,000 ha (10% of tree plantations in the country). In addition, an area of 7.8 million ha has been deemed suitable for commercial forestry activities[35].

29. The Llanos region is also experiencing an **intensification of the agricultural sector**. Traditional extensive cattle farming is being replaced by intensive cattle operations and tree plantations and oil palm and rice plantations, all of which use non-sustainable technologies such as excessive tilling or mechanization on fragile soils, lack of crop rotations, soil exhaustion caused by overuse, changes in natural hydrological cycles of the savannas, and increased dependence on chemical products[36].

30. **The GoC actively promotes the establishment of tree and oil palm plantations in the Llanos.** Large national and international businesses are investing and using tax breaks and financial incentives to establish tree and oil palm plantations in the region without taking into consideration their environmental impact. The MADR has been promoting the intensive use of the savannas since 2002 with their project "The rebirth of the Colombian Orinoquia." According to National Federation of African Palm Growers (FEDEPALMA), in the Llanos there are over 1.2 million ha with the potential for the establishment of oil palm plantations[37], in addition to the area of 7.8 million ha that has been identified as suitable for commercial forestry activities. Tree and oil palm plantations are drivers in the transformation of ecosystems.

31. **Increased human population growth** in the Llanos has resulted from increased migration. The expansion of the production sectors (agriculture, forestry, oil industry) in the Llanos and the development of infrastructure have attracted people from other regions of the country, creating increased pressure on natural resources. There

[34] Instituto de Meteorología, Hidrología y Estudios Ambientales (IDEAM), 2001. Sistema de información Ambiental de Colombia (SIAC). Tomo 3. Perfil del estado de los recursos naturales y el ambiente en Colombia 2001. Bogotá, Colombia.

[35] Rangel et al, 1995; Correa et al, 2005, Andrade et al, 2009 (5, 17, 39).

[36] Rangel et al, 1995; Correa et al, 2005, Andrade et al, 2009 (5, 17, 39).

[37] IAvH. 2009. Informe sobre el estado de la biodiversidad en Colombia 2007-2008: piedemonte orinoquense, sabanas y bosques asociados al norte del río Guaviare. Instituto Alexander von Humboldt. Bogotá.

has been an increase of approximately 85,000 people per year[38]. The current threats faced by biodiversity in the natural landscapes of the Llanos are correlated with the growing demand by humans for land and natural resources fueled by an unsustainable extraction socioeconomic model that seeks short-term economic benefits, causing rapid loss of natural savannas and a reduction in the population of some native species.

1.3. Long-term solution

32. The long-term solution to the loss of biodiversity in the Llanos consists of mainstreaming biodiversity conservation into cattle ranching and forest plantation production practices implemented on PL. This will be achieved through the use of incentives to establish production systems that are biodiversity-friendly, and the use of conservation tools that favor biodiversity and improve the quality of life for the landowners. Specific project actions that will contribute to developing solutions for the current threats to biodiversity on PL in the Llanos are summarized in Table 1.

Table 1 – Proposed solutions to the threats to biodiversity.

Threats	Solutions
Loss of biodiversity and continuous transformation of natural habitat	– Promote incentives that foster the protection of natural ecosystems (CIF for Conservation, property tax exemptions). – Create awareness among landowners about the importance of maintaining natural cover and conserving biodiversity and ecosystem services at the landscape level. – Negotiate conservation agreements and management plans that respect existing natural habitat on private lands. – Institutional strengthening of PL conservation tools that include conservation of natural ecosystems. – Promote land titling and tenure programs of vacant lands with the Colombian Institute of Rural Development (INCODER), which benefits rural populations that implement sustainable cattle ranching and forestry production practices. – Develop a special credit line by MADR and FINAGRO for the sustainable management of natural ecosystems. – Encourage MADR and FINAGRO to include biodiversity conservation criteria in the production incentives of the CIF for Forest Plantations and the ICR.
Soil and water pollution	– Institutional strengthening of PL conservation tools that include biodiversity-friendly practices related to soil and water pollution. – Draft a handbook outlining sustainable practices for the cattle ranching and forestry sectors. – Raise awareness among landowners about the use of agrochemicals, their impact, and sustainable alternatives. – Create a pilot program for sustainable cattle ranches and tree plantations in the Llanos, including reduction in the use of agrochemicals without lowering production levels, and the development of sustainable alternatives to eliminate the use of agrochemicals. – Encourage MADR and FINAGRO to include biodiversity conservation criteria in the productive incentives of the CIF for Forest Plantations and the ICR.
Introduction of non-native species	– Institutional strengthening of PL conservation tools that include sustainable practices associated with the promotion of native species. – Create a pilot program for cattle and sustainable tree plantations in the Llanos, with tests of tree plantations with native tree species. – Encourage MADR and FINAGRO to include biodiversity conservation criteria in the productive incentives of the CIF for Forest Plantations and the ICR.
Climate change	– Increase awareness among landowners about the impacts of climate change and ways to adapt to its impact. – Develop sustainable conservation-production models at the farm and landscape levels including the use of live fences (hedges), wind-breaking barriers, agroforestry systems, soil stabilization, and biological corridors that will mitigate the impacts of climate change on forest and grassland species, and will provide stable carbon stocks.

[38] Andrade et al. 2009 (39).

1.4. Barriers analysis

33. In order to promote biodiversity conservation on lands outside of PAs and help mitigate the loss of biodiversity in the Llanos of Colombia, the project proposes to encourage landowners to implement biodiversity conservation actions on PL, and promote the use of sustainable practices for cattle and forestry production systems. However, the following barriers to attaining this goal have been identified:

34. An important obstacle for conservation on PL is the **lack of a policy and legal framework** that would make voluntary conservation more attractive to landowners. The GoC encourages production through existing incentives such as the ICR and the CIF for Forest Plantations, which promotes the development of cattle ranches and tree plantations; however, biodiversity conservation criteria are not incorporated into these programs. The ICR lacks a credit line for the establishment of tree plantations that protect, restore, and maintain the natural ecosystems of the Llanos. The CIF for Forest Plantations does not include independent criteria for biodiversity conservation in the plantations. In addition, the existing incentives for conservation on PL are not yet operational. For example, in the case of the CIF for Conservation, the authority for its management and funding generation has not yet been delegated; as a result, it is still not available for landowners interested in applying for those benefits. Even though there is a legal framework for PES programs, there is still a lack of methodological guides for their implementation and operation. Furthermore, although municipalities can grant tax exemptions to landowners who are conserving biodiversity on their lands, the General System of Participation (GSP), through which public funds are distributed, does not provide any compensation for lost revenue to the municipalities granting the property tax exemptions. At the same time, council members in municipalities are not knowledgeable about these incentives, and there is a lack of political interest. In addition, the implementation of economic and fiscal incentives is usually complex; therefore, they are not easily accessible to the general population. Finally, incentives for conservation on PL that are included in Colombian legislation require the landowner to demonstrate ownership of the land with a recorded land title, thereby excluding a significant number of Colombians who do not possess a title for the land they occupy, but who might benefit from the implementation of conservation actions.

35. Biodiversity conservation on PL is also limited by the **lack of capacity of their owners and cooperating agencies to promote biodiversity-friendly practices.** Specifically, conservation on PL is limited by the lack of knowledge, awareness of environmental issues, and interest by landowners about the impacts that non-sustainable cattle farming and forest plantations have on biodiversity and the natural capital upon which they depend. They lack the necessary tools for planning and sustainable management of PL, including the development of business and management plans, and the technical and administrative capacity to evaluate and characterize the production systems they currently use and then compare them with sustainable systems. There is also a lack of knowledge among landowners about biodiversity-friendly production practices and the existence of legal tools and incentives to implement those practices. In those cases where they do know about the incentives, the complexity of the process to obtain them prevents many landowners from applying for them. Based on interviews conducted during the Project Preparation Grant (PPG) phase, it is clear that landowners usually do not participate in conservation-based initiatives that might provide them with long-term environmental and economic benefits. This finding is in agreement with the results from the *Agenda for Science and Technology for the Department of Casanare, 2001-1012*, which had as its main objective to design, in a participatory manner, the technical tools needed to promote sustainable development in the Department of Casanare considering short-, medium-, and long-term scenarios.

36. Public institutions at the national level do not have the capacity to provide timely or effective technical and administrative support to landowners who are interested in incorporating biodiversity conservation into their productive systems. For example, the UAESPNN, the public agency in charge of the registration of PRCS in the SINAP, lacks the necessary staff to support the administrative process to designate private properties as private reserves; nor can they provide technical support to landowners to facilitate their compliance with the requirements to become a PRCS. The UAESPNN depends on the CARs to conduct the field verification visits, which are a requirement of the process to become a PRCS. However, the CARs' administrative priorities do not necessarily match the needs of the owners of PL. This situation makes the process slow, expensive, and in many cases the landowners prefer to withdraw their applications. Regional- and local-level public entities do not view

conservation on PL as a priority, which is made evident by the fact that they do not even mention any biodiversity conservation tools in their planning instruments nor provide funding for their development. It is worth noting that they do focus on efforts to conserve water resources such as reforestation activities in small watersheds and the acquisition of some properties for that purpose. Some of the factors that cause this lack of commitment for conservation on PL include a lack of knowledge about available conservation tools by the staff in charge of the departmental governments, CARs, and municipalities. In addition, PL conservation is not seen as a priority by these entities. For this reason, they are not motivated to include these types of activities in their local and regional development projects. Other deficiencies of public entities include: a) lack of standardized monitoring mechanisms for conservation agreements and incentives that could measure their impact on biodiversity; b) lack of responsible entities to monitor conservation agreements on PL; c) a limited capacity to test, in the field, models and conservation agreements in PL (i.e., usufructs, leases, and trusts), and a lack of mechanisms to make those models and agreements accessible to PL owners once they have been successfully tested; d) lack of skills and knowledge by staff about the legal, financial, and technical components of conservation tools; and e) the lack of mechanisms to increase the knowledge of the importance of conservation tools among political leaders.

37. On the other hand, civil society organizations lack the capacity to replicate successful conservation experiences in PL when they do exist. There is not a sufficient array of mechanisms in these organizations to provide for a permanent exchange of experiences and lessons learned. During the PPG phase it was learned that during the last decades there have been multiple efforts made in Colombia for the development of sustainable technological production models (mostly in the Andean region), but there has been little work done to research their application and adjustment to the Llanos environmental conditions and PL conservation needs. NGOs that promote the creation of PRCS lack economic strategies and the human resources to promote conservation-production initiatives on a larger scale. (i.e., landscape level and ecoregions). Their efforts to implement projects promoting the use of conservation tools are limited by their lack of those same resources, which is caused by the lack of a financial sustainability strategy.

38. Finally, there is limited knowledge among the producers' associations about the use of conservation tools on PL, and their benefits are not widely known. For this reason, support provided to their members is limited and representatives of these associations generally lack knowledge about sustainable farming activities. Finally, there are no models for institutional agreements that would facilitate effective biodiversity conservation on PL as a collaborative effort by all parties (i.e., public entities, NGOs, and production groups).

1.5. Stakeholder analysis

39. The project has been designed and proposed by TNC, WWF, UAESPNN, RESNATUR, and FNC. This is a group of five organizations (G5) with a common objective to conserve biodiversity, advance, and strengthen the growing interest in PL conservation, and the will to work together to foster conservation in private lands.

40. At the national level the MAVDT and the MADR are the agencies responsible for promoting biodiversity conservation and production on PL and are key stakeholders for this project. Key stakeholders at the regional level include the Regional Autonomous Corporation for the Orinoco (CORPORINOQUIA), departmental governments, and regional producers' associations and NGOs. The key stakeholders at the local level are the landowners participating in the pilot program (approximately 14) and the local producers' associations. Other key stakeholders include the municipalities and owners of existing PRCS that will be participating in conservation-production pilot program.

Stakeholders	Description of Stakeholders' Roles in Project Implementation
TNC	TNC (G5 partner) is an international NGO with 15 years of experience in conservation activities in Colombia. TNC has extensive experience in planning and the creation of conservation tools, and is a leader in private lands conservation. In the Llanos the organization works with partners such as CORPORINOQUIA, FHV, the Department of Casanare, and Fundación Biodiversidad to promote sustainable cattle farming, providing support to recognize, conserve, and manage existing biodiversity in the region.

Stakeholders	Description of Stakeholders' Roles in Project Implementation
FNC	FNC (G5 partner) works in areas such as land use planning, conservation corridors, PES, best farming practices, sustainable tourism, zero-carbon program, incentives for conservation and production, private reserves, and ecological certification processes. FNC has experience in conservation tools and is promoting the creation of a Land Trust in Colombia jointly with TNC.
RESNATUR	RESNATUR (G5 partner) is an NGO that represents the PRCS in Colombia. It works in the conservation, production, and creation of partnerships in the member reserves and their surrounding areas. In the Llanos region the Llanos branch of RESNATUR is represented by the FHV. There are 32 reserves represented by RESNATUR in the Llanos.
UAESPNN	UAESPNN (G5 partner), is the organization charged with the administration and management of all areas included in the NNPS. It is also in charge of the coordination and operation of the SINAP. For this project, the UAESPNN is the entity in charge of the registration process of new PRCS.
WWF	WWF (G5 partner) is an international conservation organization created in 1961. WWF's goal is to ensure the ecological integrity of priority ecosystems, at the same time promoting sustainable social and economic development. Since 2002 it has been working in the Orinoco River watershed. WWF has experience in conservation tools and as a leader in cross-sector work such as the current agreement for legal timber for sustainable projects.
MAVDT	MAVDT is a key project stakeholder because it is charged with promoting legal environmental reforms before the National Congress, the President (Decrees), and other entities (Guides, Handbooks, Resolutions, etc). It will be in charge of adopting the proposed Methodological Guides. The MAVDT is the GEF Operational Focal Point
MADR	MADR is a key stakeholder in the project because it is charged with promoting legal reforms related to the cattle and forestry sectors. MADR manages the ICR and CIF for Forest Plantations incentives (with FINAGRO), and plays an important role in incorporating conservation criteria into those production incentives.
CARs	The CARs coordinate legal initiatives in the areas of their jurisdiction, as well as promote and facilitate their implementation and application. They play an important role in the registration process of the PRCS and in the promotion of sustainable production systems. Since 1993, CORPORINOQUIA is the environmental authority in the Departments of Arauca, Casanare, Meta, and Vichada, is an important partner of the G5 at the regional level, and has been an active partner of this GEF project since the design phase.
Departmental Governments	The departmental governments are public institutions connecting national- and municipal-level entities. The Department of Casanare is an active partner of this GEF project and is a partner of TNC and WWF in the conservation of biodiversity in the departmental territory.
Municipal Governments	Municipal governments are partners in the implementation of pilot projects. They are the highest authority at the municipal level, and are in charge of implementing laws and regulations at this level. Municipal Councils are in charge of issuing regulations for the protection of the ecological patrimony of their territory, land use planning, and property taxes.
Fondo para la Acción Ambiental y la Niñez (FAAN)	FAAN is a national NGO focused on building a better relationship between the community and the environment, and supporting projects for children through the financing of environmental and children's projects. It is an active partner in the GEF Project.
Patrimonio Natural	Patrimonio Natural is a national NGO that works in conjunction with the organizations and institutions that are members of the SINAP in the financial sustainability for the PAs of Colombia. It is an active partner in the GEF project.
Fundación Pantera Colombia	The mission of the Fundación Pantera Colombia is to save the existing six feline species in Colombia through strategic research and conservation of wild populations in all of their distribution ranges. It is an active partner in the GEF project.
Fundación Acción Verde	Fundación Acción Verde is a global NGO that works to increase awareness about climate change, and offers alternatives to promote climate change mitigation through forest plantations. It is an active partner in the GEF project through its forestry component.
Other NGOs	Several NGOs work in the Llanos and have extensive experience in the conservation of biodiversity and sustainable development. They will play an important role in the development of PL-level conservation and sustainable production activities: – FHV is the coordinating body of the Llanos branch of RESNATUR and is the entity responsible for granting PRCS status in the area. It has developed sustainable cattle farming projects with TNC. – Fundación Mata de Monte promotes sustainable conservation and production alternatives through strengthening partnerships. It implemented conservation corridors in conjunction with the Department

Stakeholders	Description of Stakeholders' Roles in Project Implementation
	of Casanare. – Fundación Amanecer has developed a loan program for sustainable cattle farming and a monitoring system (conservation and production) at the farm level. – Fundación Omacha works to study and conserve biodiversity and has generated conservation tools for aquatic ecosystems and wetlands. – The CIPAV has important experience in sustainable cattle farming and agroforestry systems. – The Fundación Biológica Puerto Rastrojo has experience in biological characterizations and has developed a proposal for the conservation and management of the Morichales of Paz de Ariporo. – Vivero Arte Ecológico is an entity specializing in the reproduction of native forestry species and the implementation of forestry projects. – Fundación Centro Las Gaviotas manages an experimental center for the forestry sector and sustainable cattle farming in the Llanos.
Cattle Producers' Associations (national, regional, and local)	FEDEGAN is the national federation representing cattle farmers before public and private institutions as well before the general public. It is also charged with responding to the needs of the cattle sector and to collecting and managing taxes. It has a presence in the Llanos through the Departmental and Municipal Livestock Committees. FEDEGAN will play an important role promoting conservation and sustainable production practices among ranchers. In addition, the Livestock Committee of Paz de Ariporo is a local partner co-financing the pilot program to be implemented in this municipality.
Forestry Producers' Associations (national, regional, and local)	FEDEMADERAS is a national forestry federation and represents the different links in the forestry chain, timber, furniture, and providers of goods and services. It is represented in the Llanos through their partners (individuals and groups).
PRCS	The PRCS in the Llanos are key project stakeholders. Their owners will facilitate communication with the other landowners in the focus areas of the project. These reserves include Fundación Palmarito and La Aurora, among others.
Universities and Research Centers	Several universities and research centers actively participate through their academic and research programs, with an emphasis on the use and sustainable management of natural resources and the development of technological options for the cattle farming and forestry sectors in the Llanos. They include IAVH, Universidad de los Llanos, Universidad Nacional, Fundación Universitaria de San Gil - Unisangil, Unitropico, and Universidad Javeriana.
United Nations Development Program (UNDP) Colombia	UNDP Colombia is the Project Implementing Agency that works to overcome poverty and promote sustainable development in Colombia. UNDP Colombia offers guidance, technical support, management tools, and theoretical and practical knowledge to national- and regional-level institutions to aid in implementing public policies, initiatives, and projects intended to overcome poverty.

1.6. Baseline analysis

41. Under the "business as usual" scenario, improvements in biodiversity conservation on PL in Colombia and in the Llanos would be limited. The baseline analysis is comprised of the following three areas related to the expected outcomes of the project.

1. Legal framework relevant to production practices that promote conservation on PL.

42. Colombia has legal incentive tools for biodiversity conservation on PL. In terms of property tax exemption, Article 14 of Law 299 of 1996 states that Municipal Councils may exempt properties from paying taxes that are adequately conserving existing flora and fauna on the property. The tax breaks that have been applied in some municipalities of the country include a discount in the payment of land taxes, depending on the degree of conservation of the land, or applying a set fee without taking into consideration the degree of conservation existing on the specific property; and in some cases there are differential fees for land. The other approach that some municipalities have taken is to exempt properties from paying taxes that are fully or partially dedicated to biodiversity conservation. However, in this case the municipalities risk diminishing their fiscal performance because the income generated from taxes is significantly reduced by these incentives. In the Llanos only the Municipality of San Martín (Department of Meta) has applied the property tax exemption for the PRCS of RESNATUR in their municipality. Experiences in Colombia in the implementation of conservation incentives through land taxes have shown that it is more desirable to have discounts or differential rates instead of full exemptions, as these exemptions reduce municipal finances. Although there are studies published that examined

the experiences from the application of tax exemptions[39], to date there are no methodological guides based on the lessons learned from those experiences.

43. The PES program is an economic incentive proposed within the legal framework of Colombia to promote private lands conservation. In 2008 the GoC drafted an NSPES, and although it has a solid constitutional and legal basis, the regulations for this tool have not been developed. However, there is a draft decree under review in the MAVDT for such purpose. There have been several PES experiences in the country, including payments for agroforestry practices on cattle farms with carbon fixation benefits and increases in biodiversity. One of these initiatives was developed within the framework of the GEF-World Bank (WB) regional project *Integrated Silvo-Pastoral approaches to Ecosystem Management* implemented by CIPAV in Colombia. The water users' associations of the Department of Valle del Cauca have negotiated direct investments in reforestation and conservation of forests that are protecting water resources with the CAR of Valle del Cauca, using a percentage of the fees that users must pay for their water. In the Chaina River watershed (Department of Boyacá), there is a voluntary fee by rural aqueducts for conservation purposes. This experience was developed as part of the GEF-WB project *Conservation and Sustainable Use of Biodiversity in the Andes Region*. As a component of the zoning plan of the watershed of the Aracataca River (Department of Magdalena) the banana industry, with support from the European Union and UAESPNN, had a co-financing mechanism between 2001 and 2002 for the conservation of the forests that protect the watershed. In the Llanos there are no PES experiences, and the stakeholders do not know the methodologies for their design or application. In addition, there are no methodological guides to support PES initiatives specifically for the Llanos.

44. The CIF for Conservation is an incentive that has been granted appropriate resources within the national budget, but has suffered from the difficulties of committing public resources beyond 2 consecutive years. There is the need for third parties to operate this tool (manage resources and related contracts). There have been several studies on how to make it operational[40]; however, to date they have only focused on the regulation of the requirements for its delegation, management, and fundraising. The ICR is also an incentive for the cattle farming and forestry sectors; however, neither one of these incentives has criteria to guide the application for their use, follow up, or monitoring that incorporate biodiversity conservation. FEDEGAN is working with the MADR and FINAGRO to add a credit line for agroforestry systems, which will open the door to generating this type of financing for the natural savannas of the Llanos. To obtain the CIF for Forest Plantations, the landowner is required to present an Establishment and Forestry Management Plan, which includes conservation information, but does not include criteria for follow up or monitoring. The Llanos region receives about 20% of the funds available nationally, and the Llanos Forestry Production Chain has helped landowners with the process to obtain the CIF. It is important to mention that this CIF provides up to 20% of its value for the conservation of natural forest areas within or adjacent to forest plantations.

45. The Land Reform and Rural Development Law (Law160/1994) provides a framework for the establishment of a Special Program by the GoC to grant lands to rural populations who implement sustainable productive forestry and cattle farming practices. Given the fact that these activities are of national and social interest, conditions associated with biodiversity conservation could be included that provide for granting vacant lands under those conditions. This law also indicates that it is the role of the INCODER to create new reserves on vacant lands and grant land titles for people dedicated to sustainable forestry and cattle farming activities. It should be mentioned that there are no precedents in the country for the implementation of this program. This type of program could secure the stability and security of land property rights, which is a basic step in obtaining most of the incentives and economic tools related to biodiversity conservation on PL.

2. Capacity for the management of conservation practices on PL in the Llanos.

Planning Instruments

[39] Erazo, J. (Investigador Principal), Benjumea, J. (Asistente), IAVH. *Análisis de la aplicación de la exoneración del impuesto predial como incentivo para la conservación en Manizales*, Manizales, 2004.
[40] Blanco, J. Corporación Ecoversa, *La Experiencia Colombiana en Esquemas de Pagos por Servicios Ambientales*.

46. CORPORINOQUIA is the legal environmental authority with jurisdiction in the Departments of Casanare and Vichada and is responsible for carrying out its own legal mandates as well as mandates for those actions that are delegated by the MAVDT and UAESPNN. However, it manages large territories with limited resources. Its planning instruments (the 3-Year Action Plan [PAT] and Regional Management Plan [PGAR]) do not mention conservation tools for private lands, nor does it have programs or projects that promote biodiversity conservation in cattle and forestry production systems. It is worth saying that sustainable production is mentioned in its technical documents. CORPORINOQUIA has a sustainable cattle farming guide[41], but it has not widely disseminated these practices and the agency does not have the capacity to provide technical support. Within the forestry sector guidelines that include conservation mechanisms are lacking and mostly monoculture plantations are approved (usually with non-native species), which causes transformation of the landscape and soil degradation.

47. Planning instruments of departmental governments (development plans) do not mention conservation on PL or the development and use of the related tools. In the municipalities the issue of PL conservation is not a priority, and as a consequence their planning instruments (Municipal Development Plans, Land Zoning Schemes [EOT] and Land Zoning Base Plans [PBOT]) make no reference to the subject. Departmental and municipal documents related to land use planning do mention that rural lands must be used in sustainable projects given the fragile biological richness of the Llanos and the importance of the conservation of water resources and forested areas. Some departmental governments and municipalities have resources from oil revenue (e.g., Meta and Casanare) but these funds are not invested in the conservation and protection of the environment. The projects that are designed for the cattle farming and forestry sectors normally seek to increase the productivity and income from those activities and they do not include the development, promotion, or use of conservation tools on private lands. There are projects related to the acquisition of properties in the areas where water is collected for rural and municipal aqueducts, and the reforestation of small watersheds that supply water to those aqueducts; however, there are no projects related to the promotion of sustainable forest plantations or cattle farming.

48. In the Llanos region property tax exemptions exist only in the municipality of San Martín (Meta) for their PRCS, and there is no evidence of the CARs granting conservation incentives for the PRCS owners who are implementing conservation actions their lands. However, landowners in the Llanos have obtained national-level incentives such as the CIF for Forest Plantations and the ICR for cattle farming and forest plantations. For example, in the municipality of Paz de Ariporo, 381 ha were reforested using the incentive, 841 ha were reforested in the Department of Meta, and in municipality of Puerto Carreño in Vichada 5,454 ha were reforested. In summary, it has not been a priority to promote sustainable production models on PL at the local and regional levels. This is caused by a lack of knowledge about existing options for conservation on PL, a lack of capacity at the regional level to promote private lands conservation and provide technical support to interested landowners, and the lack of political will.

Knowledge of Private Lands Conservation Tools

49. The staff of public institutions are usually not knowledgeable about topics such as conservation tools, incentives, sustainable and clean production, or organic cattle farming, among others. However, there are consultants or contractors who occasionally work within the Ministries, CARs, Departmental Governments, and Municipalities who can provide training on these topics. This leads to a lack of built-in capacity in public institutions to promote conservation on PL.

50. According to the results of a study performed during the PPG phase to determine the training needs of the project, there is no evidence that the use of conservation tools by the cattle farming and forestry sectors has been promoted in the Llanos. However, FEDEGAN is currently leading the GEF-WB project *Mainstreaming biodiversity in sustainable cattle ranching* that will have the foothills of the Llanos in the Departments of Meta and Cundinamarca as one of its focus areas. This project will promote a PES program for producers to support agreements for implementing biodiversity-friendly productive systems, in addition to the development of green

[41] CORPORINQUIA, 2008. Sustainable cattle farming guide (working document).

markets for cattle farming products. For this reason, there will be knowledge about these types of incentives within this sector. The few people trained in these topics living in the region are from NGOs or private foundations and not from cattle farming or forestry associations.

51. On the other hand, there is no information published about best practices for the cattle and forestry sectors that focus on the Llanos ecosystems and include conservation strategies on PL. There are some documents such as the *Sustainable Cattle Farming Guide* published by CORPORINOQUIA within the framework of clean production projects, which is based on cattle grazing activities in general in Colombia, but that does not specifically take into account the ecological characteristics of the Llanos. Although FEDEGAN promotes sustainable cattle grazing in the country, it does not have specialized guidelines on the topic that could be used in the project area. The most significant work is the publication by CIPAV entitled *Cattle farming for the future – Research for their development*, which provides guidelines that could be adopted in each region of Colombia with consideration given to tree species, bushes, and native grasslands of each zone and their local management experiences.

Organizations that facilitate the registration of PRCS

52. Currently, in the project area of the Llanos there are three institutions that facilitate registration of PRCS. UAESPNN and CORPORINOQUIA manage the registration of the reserves within the GoC. There are six reserves in the Llanos region that are registered by the UAESPNN, and four of them are in the focus areas of the project. Registration with CORPORINOQUIA usually takes considerable time, and for this reason, landowners usually register through RESNATUR. Registration with RESNATUR is supported by its branch in the Llanos (coordinated by FHV) and at this time, RESNATUR has 31 PRCS in the region. Three of them are within the project's focus areas.

53. There is no evidence of UAESPNN and CORPORINOQUIA providing incentives to landowners that create PRCS, while RESNATUR and FHV have occasionally obtained resources to help with the biological characterizations and management plans of the natural reserves they have registered. Such is the case with the PRCS La Esperanza and PRCS La Gloria in the Department of Casanare. Collaboration between Fundación Omacha and FHV allowed management plans to be drafted for the PRCS Nimajay and PRCS Bojonawi in Vichada. On the other hand, in 2003 with the support of WWF, the Llanos branch of RESNATUR prepared their conservation strategy and defined their priority conservation areas in the Llanos. Unfortunately, neither organization has obtained the resources to support landowners in the implementation of landscape management tools or the conversion to sustainable production systems. In this area there are few specific initiatives that support landowners, such as the RESNATUR-FHV-TNC project that took place at PRCS La Esperanza and PRCS La Gloria. In this case, a pilot project was implemented to improve cattle farming productivity by providing food supplements to cattle during the dry season and implementing a pasture rotation system. This experience has not yet been replicated due to a lack of resources.

54. Considering the large expanse of the Llanos, the FHV requires additional economic and human resources to support and create more PRCS. In addition, it requires other local organizations to complement its work. According to the stakeholder analysis carried out during the PPG phase, potential organizations that could complement FHV's work include Fundación Omacha (Vichada), Fundación Mata de Monte (Casanare), and Fundación Palmarito (Casanare) because of their capabilities and experience in the region. However, none of these organizations have the financial strategies in place to guarantee continued assistance to landowners interested in the creation of PRCS or in the implementation of sustainable productive systems on their lands. These local NGOs depend on projects funded by public entities or national/international NGOs that usually provide them with short-term donations.

Conservation agreements in PL

55. There are examples in the country of legal agreements for conservation on PL, such as the ecological easements created by Fundación ProAves in the Department of Antioquia and conservation agreements created by FNC in the Oak Tree Corridor in the Departments of Santander and Boyacá (both examples are in the Andean region). For the Llanos, the only known conservation agreements are those created by the TNC-RESNATUR-FHV project *Neochenjubata: generating and implementing conservation processes in the seasonal*

flooded savannas of the Llanos, linked to sustainable cattle farming, which was implemented during 2009 for farms in Paz de Ariporo (Casanare). On the other hand, FNC and TNC have developed a proposal to establish a Land Trust in Colombia following the example of those existing in Spain and the United States of America. The Land Trust is a new conservation tool to be used in Colombia that could facilitate the management of conservation agreements, fundraising for conservation activities, and the monitoring of those agreements. However, since it has not yet been implemented, its reach and benefits are unknown. Finally, during the last decades projects for the development and use of private lands conservation tools have been developed, but their financial and technical sustainability has been uncertain and there has been a lack of follow up and monitoring mechanisms. For this reason, their maintenance has been entirely in the hands of the landowners. In the case of PRCS, continued institutional support has not occurred, and for this reason it is common that landowners, using their own resources, carry out the activities that are the most beneficial to them; however, their contributions to biodiversity conservation remain undocumented.

3. Biodiversity conservation and production models in Los Llanos.

56. Although there has been no specific work done to implement landscape connectivity models, several institutions are developing biodiversity conservation activities with the objective of protecting the ecosystems and species of this region. Until recently the conservation of biodiversity in the Llanos had not been addressed from a regional perspective; however, during the last decade the scientific community has produced conservation initiatives that recognize the uniqueness, value, and threat level of the Llanos biodiversity. This includes an analysis of the value of existing natural sites and the proposal for new areas to be included in the SINA and to become part of the Regional System of Protected Areas (SIRAP) of the Llanos[42], as well the identification of important areas for conservation at the regional and watershed levels (Colombia and Venezuela)[43] and for some species, including migratory birds[44]. Since 1997, through the project *Biodiversity and Development in Strategic Ecoregions of the Orinoco Region of Colombia* the IAVH has provided technical support for the establishment of information networks among different institutions. This project developed several technical documents in support of the environmental management of the Orinoco region. Its most important outcome is the PARBO and the main focus areas include the foothills, the seasonal flooded savannas, and the high plains with guidelines for its implementation.

Biodiversity-friendly productive models

57. Although there are few cases of biodiversity-friendly productive models for both cattle farming and forestry systems in the Llanos, there are some criteria to build sustainable production models based on research developed by different institutions. In this regard, for the cattle farming sector a voluntary mechanism for conservation known as the Certificate for Best Cattle Farming Practices (BPG) is being promoted by the Department of Meta Livestock Committee. It presents an integral management model for cattle farming that generates awareness among producers about the importance to conserve biodiversity in order to receive the associated socioeconomic, ecological, and cultural benefits. This certificate is within the framework of Resolution ICA3585 of October 20, 2008, which establishes an inspection and evaluation system and official certification for primary milk production, thereby motivating landowners to implement the BPG as a preventive system and to improve the quality and traceability of milk from cows[45].

[42] In 2000 Fundación Biocolombia identified 12 key locations in the Llanos, and Fandiño Lozano and van Wyngaarden (2005) selected 25 priority sites for conservation in the same region. The UAESPNN (2007) identified 19 priority sites given their high threat level.

[43] ANH, TNC, IDEAM y el IAVH (2009) y IAVH, WWF Colombia, Fundación Omacha, Universidad Nacional de Colombia, Fundación La Salle de Ciencias Naturales (2005), (35, 17).

[44] In 2005, Birdlife International and Conservation International presented a publication with the important tasks for birdlife conservation in the tropical Andes. It included five areas in the Colombian Orinoco: the canyon of the Guatiquía River, La Lipa Wetland, PNN Serranía de la Macarena, Duda River, El Tuparro National Park, and the Bojonawi reserve. WWF and TNC, with the support of the U.S. Fish and Wildlife Service, carried out a regional evaluation of the current status of migratory bird species and key migratory sites, paying special attention to highly vulnerable species.

[45] The requirements for the BPG certificate can be found at http://www.ica.gov.co.

58. FHV, with the support of TNC, WWF, and RESNATUR, has developed projects for the conservation and sustainable development of RESNATUR's Llanos Branch. It combines general planning elements that include conservation with sustainable production in the seasonal flooded savannas. Similarly, CIPAV has been conducting research related to agroforestry systems in seasonal flooded savannas and foothills, allowing for the design of a model for agroforestry production on cattle ranches in the northern Llanos in the Department of Arauca.

59. In addition, the Agriculture Division of the Department of Casanare and Fundación Amanecer Llanero carried out a project for the depiction and rescue of the native cattle of Casanare, which characterized the breed as traditional, rustic, and well adapted to the Llanos environment. The Agriculture Research Corporation (CORPOICA) has developed studies dealing with technology transfer for breeding cattle and dual-purpose cattle in Casanare and Meta. In Vichada, CORPOICA conducted a study with the Agriculture Division of the Department to analyze the meat production chain. It included an assessment of the efficiency of using local resources for food security, traceability programs, grasslands management, commerce, and marketing. There are also several initiatives in the Llanos that have been developed by producers with an interest in conserving biodiversity. Some of them are related to the Voisin rational grazing method, which includes components of animal health and well being, planning, and sustainable use and biodiversity conservation. These are all topics to be considered when building sustainable production models and farm planning.

60. For the forestry sector, the Fundación Centro Experimental Las Gaviotas has advanced efforts in forestry development projects in Vichada that include the development of sustainable productive systems for sustainable tropical forests (multipurpose with conventional technologies). Other initiatives include the identification of sustainable forestry models through several projects, such as drafting productive proposals for the high plains of the Llanos by CORPOICA, and the promotion of agroforestry projects by the National Learning Service (SENA) in the Department of Vichada. It is important to highlight the initiative that has been implemented by FHV in Vichada to promote the cultivation of cashew trees (*Anacardium occidentale*) as a proposal for sustainable production, at the same time facilitating the development of business plans. Other efforts include those by Refocosta (a private company) to establish a socioeconomic and environmental baseline related to areas with high conservation values within the forest management units in the Municipality of Villanueva (Casanare).

61. Based on the above information and other sources, the PPG project team described five cattle farming and forestry production systems in the project's focus areas that are considered biodiversity-friendly: a) breeding cattle and beef cattle production system with traditional extensive farming for medium- and large-scale producers in Focus Area 2: Paz de Ariporo, Hato Corozal, and Orocué; b) breeding cattle production system with traditional extensive grazing for medium- and large-scale producers in Focus Area 2: Paz de Ariporo, Hato Corozal, and Orocué, Casanare; c) multiple-use forest plantations associated with traditional extensive breeding cattle farming for Focus Areas 2 and 3; d) multiple system of breeding cattle for small, medium- and large-scale producers in Focus Area 3; and e) agroforestry system associated with cashews for medium- and large-scale producers in Focus Area 3. A description of each system is included in Annex 8.6.

Business Plan Models

62. According to the preliminary economic analysis completed during the PPG phase for forestry and cattle farming activities, profitability should increase when conservation incentives are introduced. The profitability of forestry systems is likely to be higher than for cattle farming systems. However, the period of time to obtain those benefits is much longer for forestry systems. Unfortunately, at the time of the PPG phase there were no examples in the field that could attest to this. However, in the Department of Vichada there is an organized cashew market with high commercialization opportunities, which is an example of clean production and is geared toward green markets.

Management plans, conservation agreements, and monitoring systems

63. There are currently approximately 66 PAs in the Llanos. The UAESPNN and CORPORINOQUIA work in the consolidation of the regional board of PAs with the objective of designing a SIRAP for the Llanos. In addition, RESNATUR and FHV are working to strengthen the Llanos Branch of RESNATUR, providing

support to landowners to prepare management plans and conservation agreements for their reserves. RESNATUR has 11 reserves in the project work area covering 22,000 ha. All reserves have been biologically characterized and seven of them have management plans, while Fundación Mata de Monte has worked in the preparation of management plans for PL in Casanare. It is worth nothing that these are isolated initiatives, as most landowners do not carry out plans that allow them to develop production activities that are biodiversity-friendly.

64. Given the fact that the implementation of conservation-production activities has not undergone major development in the Llanos, there are no monitoring programs that can evaluate the impact of those actions at the farm and landscape levels. It is expected that this project will provide conceptual and methodological tools to implement monitoring systems of biodiversity at the farm and landscape levels, with the objective of facilitating the process to monitor the impact of production actions on biodiversity.

2. STRATEGY

2.1. Project rationale and policy conformity

65. This project will develop laws and policy proposals to create new and review existing conservation incentives for PL, and will strengthen public and private organizations to establish conservation agreements for the management of PL. The project will have a field pilot program for forest plantations and cattle ranching in Colombia's Llanos ecoregion that will include the participation of producers' associations. In addition, it will generate change in existing incentives to support conservation so that PL owners will have access to new markets. As a result, the project is consistent with the Strategic Objective Biodiversity: Incorporation of biodiversity in productive landscapes and sectors, through Strategic Program 4: Strengthening of policy and regulatory framework to integrate biodiversity and Strategic Program 5: Fostering for markets biodiversity goods and services.

66. Colombia is eligible to receive assistance from the UNDP through its Standard Basic Assistance Agreement (SBAA) with the United Nations, which was signed in 1974. The proposed initiative is in line with the Program of Action prescribed by the UNDP Colombia Country Program Document. In response to United Nations Development Assistance Framework (UNDAF) National Priority Area II: to strengthen national capabilities to promote sustainable development, the UNDP Country Office proposes to provide support for initiatives that are intended to strengthen the national framework for biodiversity management by governmental and non-governmental agencies at the national, regional, and local levels.

2.2. Country ownership: country eligibility and country drivenness

67. Through this project, Colombia partially fulfills the country's commitments to conserve biodiversity of global significance as expressed in the Convention of Biological Diversity (CBD, Law 165/1994) and in its National Biodiversity Policy (1996) by developing policies and implementing conservation actions on PL in high-priority areas. The project also complements government activities directed towards strengthening Colombia's SINAP. One objective of SINAP's Action Plan is to generate a favorable inter-sectoral scenario for conservation actions and PA management. The project is consistent with this plan and contributes to sector-level actions as stated in its proposed outcomes. In 2008, the MAVDT developed the NSPES, which defines working areas and actions to promote conservation. The project's activities will help to generate financing and implementation models in support of the NSPES.

68. The project is consistent with the country's development plans at the national, regional, and local levels. The goals of Colombia's National Development Plan (2006-2010 and 2010-2014) include promoting a land tax exemption in recognition of forest conservation and implementing sector actions that integrate agrochemical environmental considerations such as efficient use, integrated pest management, good agricultural practices application, and review of inter-sectoral environmental agendas. Aspects related to conservation in PL and conservation incentives have been included in department- and municipal-level development plans, and in CORPORINOQUIA's PAT. Additionally, the project is consistent with the Fight against Desertification and Drought National Action Plan (2004), through implementation of sustainable and economically viable cattle ranching practices in critical areas. According to this plan, 28 municipalities in the Department of Meta, six

municipalities in Vichada, and three in the Department of Casanare contain desertification areas, all of which are located in the Llanos.

2.3. Design principles and strategic considerations

69. Project Identification Form (PIF) Conformity: The project design is closely aligned to the original PIF. The structure of the project components closely resembles the PIF that was approved by the GEF.

70. UNDP's Comparative Advantage: This project fits under the UNDP comparative advantage selected as the GEF Implementing Entity by the GoC due to its experience in developing the capacity of local governments to conserve biodiversity as well as use resources in a sustainable manner, in addition to generating, disseminating, and adopting better practices in biodiversity conservation, developing capacity, and increasing the financial sustainability of the PA systems. Furthermore, the UNDP is working with different institutions and stakeholders in Colombia on PA, private lands, and environmental and governance issues and, as the Implementing Entity of the projects mentioned previously that constitute Colombia's programmatic approach to catalyzing the sustainability of its PAs, it is in a good position to ensure inter-project learning.

71. Coordination with other related initiatives: The project will coordinate actions and exchange lessons learned with the GEF-WB project *Mainstreaming biodiversity in sustainable cattle ranching*. The objective of the GEF-WB project is to promote the adoption of environment-friendly silvo-pastoral production systems for cattle ranching in Colombia's project focus areas, to improve natural resource management, enhance the provision of environmental services, and increase productivity on participating farms. The project proposed herein will complement efforts by the GEF-WB project through: a) generating institutional capacity to manage conservation agreements and implement PL incentives, especially in local cattle ranching associations and for strengthening PRCS; b) creating a monitoring system for conservation agreements; and, by c) adjusting a legal/policy framework to include environmental considerations and conservation incentives in cattle ranching policies. TNC is one of the implementing organizations of the GEF-WB project and a member of its Steering Committee (SC), and has a close working relationship with FEDEGAN, the agency responsible for the project. TNC will be responsible for developing baseline information regarding the designs of biological corridors that will enhance ecosystem connectivity, the design of the land tenure management plan, providing support for training activities, advice regarding biodiversity conservation and ecosystem connectivity, design and implementation of the monitoring and evaluation system for biodiversity at the landscape and ecoregion levels, and the development of PES schemes. During the PPG phase meetings were held between TNC and members of the project team from FEDEGAN to initiate coordination actions between the two projects. Since TNC will be directly involved in the implementation of both projects and will be part of their SCs, the exchange of information, experience, methodologies, and lessons learned will be facilitated and synergies between both initiatives will be established. This, together with the fact that the project proposed herein will be implemented in a geographic area of the Llanos (seasonally flooded savannas and high plains of the Departments of Casanare and Vichada) different from the ones prioritized by the GEF-WB project (foothills of the Department of Meta), any overlapping of actions will be avoided.

72. The project will also coordinate actions with the GEF/Inter-American Development Bank (IADB) project *Mainstreaming Biodiversity in Palm Cropping in Colombia with an Ecosystem Approach*, to be implemented by FEDEPALMA and WWF. The GEF-IADB project is schedule to begin implementation in 2011 and will include actions related to integrated ecosystem management in palm plantation areas; environmental services related to water resources, PAs, and biological corridors to enhance connectivity and conservation of biodiversity; and development and access to green markets for raw materials and certified products. During the PPG phase representatives from TNC held meetings with members of the GEF-IADB project to initiate coordination efforts and they agreed to continue these meetings on a regular basis to ensure an ongoing exchange of feedback between the two projects. As WWF will be an executing partner of both projects, the process of the exchange of knowledge and lessons learned will be facilitated.

73. Lessons learned will also be shared with the GEF-UNDP project *Mainstreaming Biodiversity in the coffee sector in Colombia*. During the PPG phase topics of interest for both projects were identified together with members of the coffee project team (project director and technical staff) and with support from UNDP Colombia. These include: a) development of negotiation methodologies and tools with owners to implement

actions; b) conservation actions in PRCS for the establishment of biological corridors and implementation of conservation activities; c) use of control farms to assess project impacts; d) implementation of PES schemes; e) incentives for conservation through municipal property tax exemptions; and f) monitoring of biodiversity on farms and in the surrounding landscapes. Mechanisms will be developed for effective coordination between projects, including: a) exchange of information (e.g., annual plans, Annual Project Reports (APR)/Project Implementation Reviews (PIR), and independent evaluation reports) through UNDP Colombia; and b) periodic meetings within the framework of the NSPES coordinated by MAVDT, during which results and experiences on PES-related issues will be presented. The project proposed herein will also incorporate knowledge and results from the GEF-WB project *Colombian National Protected Areas Conservation Trust Fund*. In particular, results from the adjustments to the legal/policy framework will be considered that may be related to the SINAP and to the establishment of land administration contracts with agencies responsible for PA management.

74. This project will also seek close coordination and exchange of lessons learned with several other initiatives, including: a) TNC's initiative that resulted in the signing in 2005 of a Memorandum of Understanding with seven other organizations to formulate and implement the NPAS Action Plan; b) TNC and WWF's technical support to CORPORINOQUIA, UAESPNN, and landowners for the creation of a new regional-level PA and private reserves to protect 366,000 ha of wetlands in the Llanos; and c) the agreement signed by RESNATUR, TNC, WWF, UAESPNN, and FNC (2007) to promote and strengthen conservation in private lands by means of seminars, publications, events, and proposed changes to regulations. Finally, this project is being proposed with the following existing conservation tools in mind: a) calf-breeding model for the Llanos developed by the FHV and TNC; b) conservation agreement models and sustainable cattle ranching models for farms located in the Andean Oak Forest Corridor developed by FNC; c) farm planning tools developed by TNC and CIPAV; and d) regional-level maps identifying migratory bird site conservation needs for the Llanos developed jointly by TNC, WWF, and RESNATUR.

2.4. Project objective, outcomes and outputs/activities

75. The **project goal** is to promote conservation of biodiversity on PL in Colombia. The **project objective** is to promote voluntary biodiversity conservation practices on cattle ranching and forestry PL through a revised legal/policy framework and institutional strengthening, and with the application of a pilot program in the Llanos region of Colombia. The project's outcomes and outputs are described below.

Outcome 1: Adjustments in policies and laws regarding production practices promote conservation on PL.

76. Through this project component, at least five policy proposals will be developed that facilitate the incorporation of biodiversity conservation criteria into the cattle ranching and forestry sectors in Colombia. The identified proposals are the result of an analysis of existing standards and policies regarding conservation on PL, as well as the gaps identified during the PPG phase. Upon completion of the project, a set of policy documents will be available (i.e., methodological guides and regulatory proposals) for the application of conservation incentives on PL. In addition, protocols will be developed for modified or newly created policies that will guide the implementation of the incentives. The outputs defined for this component are described in the following paragraphs.

Output 1.1: Methodological guidelines for the Municipal Advisory Councils on the design of differential rates, exemptions, or discounts related to property taxes.

77. Through the project a national-level technical, legal, and economic document will be developed to guide municipalities in the design of different alternatives for conservation incentives through deductions, differential rates, and property tax exemptions. To achieve this, the following actions will be performed: a) during the first year of project execution regulations and experiences in the application of conservation incentives in property taxation at the national level, including property tax benefits or exemptions through deductions, differential rates, and exemptions, will be compiled and systematized. It will include the compilation of case law, doctrine, and successful and unsuccessful experiences at the national level, as well as administrative acts to this effect; b) during the second year of project execution a Methodological Guide for Municipal Advisory Councils will be developed in which results from the pilot experiences that are carried out through Component 3 of the project (pilot application of conservation incentives on PL through property tax exemptions) will be used, and will

include the methodological guidelines, legal framework and alternatives, and recommendations and models for administrative acts and Municipal Agreements; c) during the third year of project execution 1,000 copies of the Methodological Guide will be published and disseminated, having been adopted and validated by the MAVDT. A national-level workshop will be held, with participation from representatives of the Colombian Federation of Municipalities (FEDEMUNICIPIOS), the Municipal Advisory Councils, and the Association of Regional Autonomous Corporations (ASOCARS), as well as two local dissemination workshops with participation from municipal administrations, departmental governments, CORPORINOQIA, and Municipal Advisory Boards; and d) a bill or proposed public policy document will be developed for adoption by the National Council of Economic and Social Policy (CONPES) that will provide compensation to those municipalities implementing conservation incentives on PL to make up for the reduction in revenue.

Output 1.2: Methodological guidelines for the design of avoided habitat loss payment schemes for forestry and cattle production within the national strategy for PES (NSPES).

78. The project will facilitate the development of a Methodological Guide to technical, legal, and economic issues for the design of a PES scheme, which includes a proposed method for identification and valuation of services, estimates of the willingness to pay, and the design of legal tools for legal feasibility. The guide will incorporate lessons learned from the two pilot experiences that will be developed in Output 3.7 (payment for avoided loss of habitat by cattle ranching and forest plantations) and from other successful experiences in the Llanos region and the country. During the second year of the project, legal and economic information from documents, interviews, and the two pilot experiences carried out in the framework of Outcome 3 will be gathered and systematized. The Methodological Guide will be developed based on the information mentioned previously and using baseline information developed in Output 2.1. The guide will be published during the third year of the project and will include editing, layout, and publication of 1,000 copies, as well as its dissemination through two workshops (one local and one national) with participation from the MAVDT, civil society organizations, producers' associations (e.g., FEDEGAN and FEDEMADERAS), CORPORINOQUIA, universities and research institutions, and officials from municipal and departmental governments.

Output 1.3: Proposal for the regulation of special requirements for the delegation of administration and collection of resources from the CIF for Conservation.

79. The third legal instrument that will be developed is a draft decree that contains special requirements for the management of resources from the CIF for Conservation (Article No. 7 of Law 139/94) and includes guidelines for the management and allocation of resources. The legal framework that is required to delegate the long-term management of financial resources of the CIF for Conservation to public or private entities will be created. A regulatory proposal for Law 1377/10 will also be developed in order to allow the fair selection of CIF beneficiaries and with consideration given to biodiversity conservation criteria. During the first year of the project, regulatory alternatives will be selected that facilitate the management and allocation of resources from the CIF for Conservation. This will include the development of a document that summarizes a regulatory strategy based on the capability of the GoC to regulate the CIF for Conservation. The development of the required text and draft decrees, as well as their justification, which includes an adjustment to Decree 900/97 that regulates forestry conservation incentives, will be made during the second half of the first year of the project. During the second year a CONPES proposal document will be developed to secure the necessary resources for the CIF for Conservation, and will include provisions to adjust the value of the incentive to ensure its financial sustainability.

Output 1.4: Proposal for the incorporation of criteria for monitoring the conservation and sustainable use of biodiversity for the CIF for forest plantations and for the ICR for cattle ranching and forest plantations.

80. The project will enable the development of proposals for Special Programs and Provisions that include criteria related to biodiversity conservation for the CIF for Forest Plantations and the ICR, which are associated with sustainable production practices in the cattle ranching and forestry sectors. These proposals will define mechanisms for access to resources that support biodiversity conservation and sustainable production practices, as well as monitoring their impact. Activities to be carried out during the first year of the project are: a) development of a technical, legal, and economic proposal of conditions or criteria for granting the CIF for Forest Plantations that is associated with biodiversity conservation; b) design of a special provision for the ICR that

will facilitate financing for sustainable production practices linked with biodiversity conservation in the cattle and forestry sectors, including the establishment of protective plantations and the restoration and maintenance of natural ecosystems; c) development of administrative decree projects (i.e., agreement with the FINAGRO Board of Directors) that are necessary for the implementation of the proposed provisions and criteria; and d) beginning in the second year of the project, presentation of the abovementioned proposals to the Ministry of Agriculture and FINAGRO.

Output 1.5: Proposal for a Special Program for land entitlement rights within INCODER, benefitting rural populations that develop sustainable cattle ranching and forestry production practices.

81. Through the project a proposal will be developed for a Special Program (regarding rules and procedures) for land entitlement rights based on sustainable cattle ranching and forestry production practices to benefit farmers settled in public lands. This granting of land rights will incentivize the ecological function of the land awarded to farmers and will promote biodiversity conservation. To achieve this the project will facilitate the following activities: a) identification of the baseline for existing and applicable programs to grant land rights with the aim of fostering biodiversity conservation, as well as the identification and systematization of the regulatory framework to support the proposal to create the Special Program and perform an analysis of its impact; b) development of a regulatory proposal that establishes the program and formulates rules to gain access to it, including an administrative decree of INCODER, through which it will be adopted; and c) presentation of the Special Program proposal to INCODER and MADR to facilitate its adoption by these entities. These activities will be carried out during the first two years of the project.

Output 1.6: Operational protocols designed for the proposed or modified incentives (tax exemptions, CIF for Conservation delegation, CIF for Forest Plantations, ICR, and land titling program).

82. In order to facilitate the use of conservation incentives on PL, the project will develop, publish, and disseminate standard operational procedures (SOPs) to the national authorities whose jurisdiction covers the actions developed through this project component. This will include: a) compilation of the standards that regulate the instruments for which it is necessary to establish SOPs, as well as identification of the necessary standards for adoption; b) development of the standards through required administrative decrees that will depend on the competency and the type of decree that should be issued; and c) publication (including design and editing) and promotion of the SOPs for adoption by the competent national authorities. The proposed standards will be published in official newspapers, gazettes, and informational media. In addition, two workshops will be held with the participation of key stakeholders including the MAVDT, MADR, FINAGRO, CORPORINOQUIA, mayoral offices, and departmental governments to inform them about the instruments that are developed. The activities to achieve this project output will take place during the first two years of the project.

Outcome 2: Strengthened management capacity for conservation practices on PL in the Llanos region.

83. Through this component institutional and individual capacities will be strengthened to develop conservation practices through the design of land use plans on the regional and local scales; the implementation of capacity-building activities for the design and monitoring of the application of conservation tools on PL (i.e., economic, legal, and landscape management tools) to facilitate the training of national, regional, and local government staff, as well as representatives from cattle ranching and forest producers' associations; the strengthening of three civil society institutions to facilitate the establishment of new private reserves and their registry as PRCS; the development of contract models for conservation that will be administered by environmental authorities from the Llanos region; and a Land Trust that will be established through the project. The outputs for this component are described in the following paragraphs.

Output 2.1: Planning instruments for government agencies, forestry/cattle ranching organizations and landowners include tools for private conservation.

84. The project will facilitate the inclusion of conservation tools for PL in development and investment plans, PAT, PGAR, and POT or EOT for the CORPORINOQUIA, departmental governments (Casanare and Vichada), and municipalities within the project area. The conservation tools will include: a) landscape management tools such as biological corridors, reforestation of protector-producer forests, fodder banks, and clean production

mechanisms for cattle and forest production; b) economic tools including property tax exemption, CIF, the ICR, and other incentives identified in Component 1; and c) legal tools, such as conservation agreements (see Output 2.6) and current state regulations (see Component 1). Specific activities related to this project output that will be developed in the first year of the project are: a) a review of existing land use planning tools using as a base existing documentation from project executing partners and key stakeholders; b) development of proposal documents for conservation tools with the participation of technical and administrative staff from key participating agencies; and c) three institutional meetings (consultation, negotiation, and adjustment) held to approve proposal documents. This last activity will take place during the second year of the project. Upon completion of the project, there will be five PL conservation tools included within regional and municipal land use and development plans, programs, and/or projects.

85. Through the project 33 people (five representatives from each of the municipalities in the pilot areas, two representatives from CORPORINOQUIA, two representatives of the departmental governments in the project's area of influence, two representatives from the UAESPNN, and two from the Ministry of Agriculture/FINAGRO) will be trained in the design and monitoring of the application of private conservation tools (i.e., economic, legal, and landscape management tools). In order to achieve this, training modules will be designed using as the basis results from the training needs analysis that was performed during the PPG phase, including the development of the associated teaching materials. This activity will be carried out beginning in the second month of the project. Training sessions will be held in the capitals of the two departments during the first 2 years (each year two workshops per department will be held). In addition, follow-up meetings with trained officials will be held to foster the application of the private conservation tools and to assess the impact of training through interviews, documentation review, and review of the results from activities implemented in PL.

86. Additionally, by the end of the project, 20 representatives from the producers' associations and 14 PL owners will have been trained in the use of economic, legal, and landscape management tools and in techniques for monitoring progress of the development of cattle ranching and forestry sustainable production models. Beginning in the second month of the project, training modules and related teaching materials will be developed using the results of the training needs analysis that was performed during the PPG phase. During the first 2 years of the project, field-based training sessions will be held on PL located in each of the two departments (two training sessions per department per year). Training for landowners will achieve the following: a) facilitate the implementation of incentives and other tools developed under the project and allow the application of participatory planning methodologies for PL using sustainability criteria, and b) raise awareness among landowners about the importance of conserving biodiversity and ecosystems services at the landscape level. In addition, progress meetings will be held with trained representatives from the cattle ranching and forestry producers' associations and PL owners to foster implementation of the private conservation tools and to assess what was learned through interviews, review of documentation, and fieldwork activities. This last activity will be carried out almost continuously during the final four months of each year of the project's life.

Output 2.2: Handbook of best practices for cattle ranching and forest plantations include PL conservation strategies.

87. Training activities will be complemented by the development of an Informational Handbook on Biodiversity-Friendly Cattle Ranching and Forestry Practices, which will include instructional information about best production practices (i.e., environmentally friendly) and conservation tools for the cattle and forestry sectors in the Llanos, as well as information about the legal and institutional framework for conservation on PL, procedures to access conservation incentives, and an index of related resources. The handbook will serve as a practical teaching tool to support state agencies, associations, and PRCS organizations. The following activities will be performed to facilitate the development of the handbook: a) bibliographic and institutional review of successful experiences in sustainable production in the Orinoco beginning in the ninth month of the project; b) design and development of the handbook in consultation with cattle and forestry producers about the scope of proposed practices and tools during a meeting in each department's capital; and c) publication and distribution of the handbook. The design and development process for the handbook will last approximately 3 to 4 months. Once the handbook is developed, it will be distributed among the relevant stakeholders: FINAGRO, MAVDT, FEDEGAN, municipal committees of cattle ranchers in each municipality of the Orinoco, departmental

governments, mayoral offices, and second-tier lending institutions (i.e., local lending institutions that specialize in channeling resources to the production sectors).

Output 2.3: Financial strategies to support organizations that facilitate PRCS registration.

88. In order to establish and register new PRCS in the Llanos region, the project will strengthen two civil society institutions with support from the UAESPNN, CORPORINOQIA, and RESNATUR. Institutional capacity will be strengthened and the formulation of financial strategies will be supported for an institution in each department (Casanare and Vichada) that will serve as the AOPRCS for registration of private reserves with the PRCS Board. An analysis of stakeholders and capacities that was performed during the PPG phase identified Fundación Palmarito and Fundación Mata de Monte in Casanare, and Fundación Omacha in Vichada as the NGOs that presented the best perspectives for becoming AOPRCS given their history in the region and their knowledge of conservation and sustainable development in their respective areas. In particular, the following activities will be developed through the project: a) the design of a plan to strengthen capacities, including development of didactic material, so that each AOPRCS is trained (10 persons total) to help private reserve owners in the registry as well as the development of management plans for the reserves and the implementation of sustainable production systems; b) the development of two training sessions with the AOPRCS in each department's capital; and c) participatory meetings to formulate a financial strategy that will guarantee the sustainability of each AOPRCS so that they may provide continuous services to the owners of private reserves and producers. Six meetings will be held with each agency to collect information and formulate and coordinate the financial strategy. These activities will be developed during a period of 15 months during the first 2 years of the project.

Output 2.4: Contract models to support legal agreements in PL (easements, usufruct, leasing, and trusts).

89. Through the project four conservation contract models will be developed that could become conservation agreements, ecological easements, usufructs, leases, and/or trusts, and which upon finalization of the project will be legally constituted and operational. To achieve this, a review of successful national and international contract models will be made during the first year of the project, and will serve as the basis for negotiating contracts in the project area. The participatory design of the contract models will be carried out during the first and second years of the project with delegates from the project's partners, organizations benefitting from Outputs 2.2 and 2.3, and owners who will benefit from the pilot activities (see Component 3) to allow sufficient time for its implementation and monitoring and evaluation. The monitoring and evaluation will be performed by the project's executing partners and/or the organizations mentioned in Outputs 2.2 and 2.3, as well as by the Land Trust (see Output 2.7). These agencies will also be responsible for documenting the lessons learned during the formulation and implementation processes so that the information is made available for the replication of successful conservation models. During implementation, amendments will be made to the already established contracts when the parties involved deem it necessary.

Output 2.5: The Land Trust's administrative and operational procedures and business plan are developed.

The project will promote the creation of a Land Trust for the Colombian Orinoco that will facilitate the administration of conservation agreements, fundraising to implement conservation and sustainable production activities in PL, and the creation and monitoring of the contract models mentioned in Output 2.6. Based on the proposal for creation of the Land Trust developed by FNC and TNC, the following activities will be developed: a) a study will be performed regarding the operationality of the Land Trust, including its legal basis and mechanism of formation and options for the management of resources and business development guaranteeing its sustainability; b) the Land Trust will be created as a business that will operate within an existing organization (for example FNC or other NGOs, or as part of a dual private-public organization) or as a legal independent entity; c) administrative and operational plans will be defined, including the selection and contracting of the Director and core staff; and d) commercial activities will be started and services will be promoted which include the definition of the business plan and its implementation. In order to develop the business plan, the specific financial needs of the Land Trust will be evaluated, as well as the potential sources of revenue generation through businesses and the procuring of other external revenue sources (governmental and non-governmental). In addition, an analysis will be conducted of the relation between cost and income so that different long-term

financial scenarios (minimum of 5 years) can be defined, and a risk evaluation will be performed. The feasibility analysis for the creation of the Land Trust will be carried out during the first year of the project, and the Trust will be operational beginning in the second year.

Outcome 3: Pilot program improves biodiversity conservation and producers' income in the Llanos region.

90. The project will improve biodiversity conservation as well as producers' income on 40,000 ha of the Llanos region (in the Departments of Casanare and Vichada) through a pilot program for conservation on PL and the creation of 10,000 ha of new PRCS. The pilot program will include the implementation of sustainable and biodiversity-friendly production systems on PL, the application of conservation incentives created as part of Component 1, the establishment of conservation agreements, and the development of management plans for up to 14 farms benefitting from the project. In order for these activities to be successfully carried out, the project will work with national and regional authorities such as the UAESPNN and CORPORINOQUIA and farm owners to establish the pilot program. Ecosystem connectivity and conservation models for natural savannas will also be developed to identify habitats at the landscape and farm levels that are in need of increased connectivity and facilitate the conservation of species. Information drawn from existing ecosystem conditions, an analysis of priorities for species conservation, land use maps, and an analysis of the socioeconomic characteristics of the farms will be used to generate a biological and economic baseline to evaluate the project's impact.

91. During the PPG phase the project was widely disseminated to livestock and forestry groups, as well as landowners implementing cattle farming and forestry activities in the Llanos. As a result of this process, it was determined that the project should work in the surrounding areas of existing PRCS in order to use the experience of private reserve owners as a mechanism to increase the awareness of landowners from the surrounding areas. This in turn will allow the establishment of biological corridors connecting natural reserves and productive farms with conservation potential.

92. During meetings held in different areas within the Llanos and the project's Strategic Framework of Project Results Workshop, landowners interested in participating in the pilot program were asked to fill out an informational form. Based on the information collected at those meetings, specific properties within the project focus areas were selected (see Table 2). Accordingly, properties have been identified as potential participants in the project's pilot program and they will serve as the core or reference point for each focus area. In the surrounding area of each existing PRCS, three to four additional properties will be selected. The final selection of those properties will be completed during the first 6 months of the project.

Table 2 - Productive properties identified within the focus areas of the project.

Focus Area	Municipality	Pre-Selected Property (Core Area)	Ecosystem	Description
1	Paz de Ariporo	PRCS La Esperanza	Flooded savannas, includes five ecosystems: gallery forests, flooded gallery forests, savanna banks, grasslands, and flooded savannas ("esteros").	1,200 ha of native grasslands with sustainable cattle activities, conservation of wildlife, and ecotourism for small groups (fewer than 30 people).
	Hato Corozal	PRCS La Aurora	Gallery forests, savannas, flooded forests, wetlands, and grasslands	9,704 ha dedicated to extensive cattle ranching, conservation through PRCS and with ecotourism activities.
2	Primavera	Hato Irosebia		17,000 ha with 70% of high plains and 30% of low lands; has had extensive cattle farming for 33 years.
	Puerto Carreño	PRCS Nimajay, Wakuinali, Pitalito, and Bojonawi	Gallery forests and flooded forests	Nimajay: 2,012 ha where cashews are grown, sustainable cattle, and ecotourism; Wakuinali: 3,460 ha dedicated to conservation-production of cattle and forestry products (wood and rubber); Pitalito has an extension

				of 3,200 ha and Bojomawi 4,800 ha.
3	Orocué	PRCS Palmarito	Well and poorly drained savannas, savanna forests, gallery forests with different degrees of flooding, has aquatic vegetation and grasses	3,000 ha in conservation, extensive cattle farming, and ecotourism for selected clients.

Output 3.1: Farm planning tools (e.g., maps) and landscape connectivity models for PL contribute to environmental planning at the municipal and landscape scales.

93. Farm planning tools articulated with landscape/land use management instruments will allow farm owners to zone their land and set aside areas for conservation and the implementation of best practices on PL. In particular, the following activities will be performed through the project: a) during the first 6 months baseline scenarios will be defined through a participatory method which considers existing land planning instruments such as management plans for watersheds (POMCAS), EOT or POT, and PGAR; b) consensus will be built with PL owners benefitting from the project (up to 14 PL owners) and whose property complies with project requirements, such as their placement within core work areas, farms with forest and/or cattle ranching production systems and natural areas; the potential for spatial connectivity with natural areas within the larger landscape (i.e., remnant forests, gallery forests, natural grasslands, PAs), and a commitment by the land owners to develop the actions required by the project; c) a GIS will be designed and implemented at the farm and landscape levels based on geographical mapping, satellite imagery, and social mapping, which will be operated by a regional institution (CORPORINOQUIA and the UAESPNN's Regional Division are the most qualified institutions) – the GIS with its databases and mapping information will provide the necessary inputs for the project's monitoring system (see Output 3.5); and d) farm use and zoning plans will be created based on an analysis of maps and spatial matrices allowing the identification of production and conservation activities, existing resources, and areas that favor connectivity.

Output 3.2: Sustainable production models are developed for cattle ranches and forest plantations to increase productivity (income) and conservation contributions.

94. The project will facilitate the implementation of at least six measures in the context of the pilot project outlined in Outputs 3.6 y 3.7 that promote biodiversity conservation on PL for each production system (cattle ranching and forest plantations), based on best practices that have been successfully tested for similar systems. The activities that will be carried out include: a) consensus building with selected PL owners for the implementation of best practices for each stage of the production cycle (establishment, transformation, and commercialization); b) validation and tracking of the implementation of sustainable activities based on the inclusion of experimental tests with native flooded savannas[46] and high plains[47] species (activities will include the management and conservation of soil, water, and biodiversity, reduction of agrochemical use as well as their proper handling and control, spatial arrangements with native species for production systems that use introduced or non-native species, recycling of wastes from the cattle production system, and fair treatment and good working conditions for the employees of the forest plantations and cattle ranches); and c) at least six field trips in each of the selected core work areas (Paz de Ariporo, Hato Corozal, and Orocué municipalities in the Department of Casanare; Cuenca Bita in the Department of Vichada) to raise awareness among the producers and staff from key agencies (e.g., NGOs, CORPORINOQUIA, Ministry of Agriculture, and producers' associations) about sustainable and biodiversity-friendly production models. Successful experiences will be included in the Informational Handbook on Biodiversity-Friendly Cattle Ranching and Forestry Practices (see Output 2.4). The sustainable conservation-production models and their associated farm and landscape components (e.g., live fences [hedges], wind-breaking barriers, agroforestry systems, soil stabilization, and

[46] Fodder: *Axonopus purpusii, Andropogon bicornis, Panicum laxum, Sida glomerata* and *Sida acuta, Hytis suaveolens, Hyptys mutabilis*; Shrubs and trees: *Euphorbia hirta*; *Curatella americana*; *Copaifera officinalis*; *Acrocomia aculeata*; *Spondia mombin*; *Coccoloba caracasana*; *Ceiba pentandra*; *Hymenaea coubaril*; *Cassia grandis*; *Crescentia sujete.*

[47] Fodder: *Andropogon bicornis, Schizachyrium hirtiflorum, Paspalum pectinatum, Trachypogon vestitus; Trasya petroso* and sedges; Trees: species of the family Amaranthaceae and Compositae, *Spondias mombi, Tapirira guianensis, Jacaranda obtusifolia, Spathodea campanulata, Elephantopus mollis, Eupatorium sp, Hipoporum hirtellum, Curatella americana, Davilla aspera, Byrsonima crassifolia, Psidium maribense, Genipa caruto, Melochia parviflolia* and *Piriqueta cistoides*.

biological corridors) will contribute to mitigating the impacts of climate change on forest and grassland species and will provide stable carbon stocks.

Output 3.3: Business plan models for forestry and cattle ranching practices that contribute to biodiversity conservation.

95. The development of business plan models will complement the set of conservation and sustainable production tools available to the PL owners. Beginning in the second year of the project, the project will select PL owners to be trained in the development of business plans for sustainable cattle and forest production practices, and existing cattle and forestry production practices will be improved to meet national and international sustainable production standards (e.g., Environmental Management Systems – ISO 14000, Occupational Health and Safety Management Systems – OSHAS 18000, Standards for Sustainable Agriculture and the Sustainable Agricultural Network – RAS, Voluntary Forest Certification [FSC], and other environmental guidelines for cattle ranching and forestry production and marketing). The project will provide support to the PL owners in formulating business plans with assistance provided by experts who are knowledgeable in national and international markets, so that at the end of the project there will be at least two business plan models in place (one for cattle ranching and the other for forest plantations) targeting green and clean production markets.

Output 3.4: Management plans and conservation agreements for 40,000 ha (10,000 ha are administrated by the Land Trust and 10,000 ha are new PRCS).

96. The project will facilitate the development of management plans for approximately 14 farms (cattle ranches and forest plantations) in the selected work areas as well as the signing of conservation agreements between the environmental authorities and/or NGOs and the PL owners. These actions will contribute to the conservation of 40,000 ha of flooded savannas, high plains, grasslands, and gallery forests on PL. During the final selection of the project farms, which will be performed during the first six months of the project, consensus with PL owners will be built to define the scope of actions that will be carried out on their lands, and which will be based on biodiversity conservation and sustainable production. The terms of cooperation between PL owners and the project will also be agreed upon during this time. This will include the development of management plans for each farm based on the guidelines set forth by RESNATUR (i.e., farm characterization, updated mapping and zoning of the farm, definition of conservation and sustainable production objectives, and definition of impact indicators) with support from the UAESPNN and CORPORINOQUIA. The management plans will include detailed operational plans and long-term investment plans (10 years). The conservation agreements may be established between the PL owners and environmental authorities such as the UAESPNN and CORPORINOQUIA, municipalities, and NGOs. The agreements will be ratified through commitment acts or signed contracts, and will include approval of the management plans. Among the 40,000 ha that will be under conservation agreements, 10,000 ha will be under the Land Trust, while 10,000 ha will constitute new PRCS. The management plans and conservation agreements will be established during the second semester of project execution and the related activities related may extend until the end of the project.

Output 3.5: A farm- and landscape-level monitoring system that measures PL program impacts on biodiversity, land use change, and income variation.

97. The development and implementation of a monitoring system at the farm and landscape levels will assess the project's impact on biodiversity conservation and income generated for the PL owners benefitting from the implementation of conservation tools, including the application of conservation incentives. During the first 6 months of the project, a monitoring system will be designed and key measurable variables will be selected and linked to project indicators as defined in the Strategic Results Framework (see Section 3 of this project document). The design will include the setup of databases, definition of procedural standards, information gathering, digitalization, and data analysis for the biodiversity groups to be monitored (birds and plants). The selection of these groups is due to their ease of identification and the fact that they are commonly used as indicator groups for biodiversity status. Experts from the Llanos region who already possess firsthand knowledge of these biological groups will be linked for collaborative purposes to the project. A baseline will be established to determine economic benefits for the PL owners implementing conservation actions. Additionally, an initial analysis will be made of the perception of the PL owners regarding the benefits that the incentives

generate, and mapping at the farm and landscape levels (land cover and land use) will be performed. The baseline for the monitoring system will be articulated with the development of the farm management plans that are part of Output 3.4, making optimal use of both resources and time. The monitoring system will be part of the Project Management Unit (PMU) that TNC will establish in its capacity as the project's Implementing Partner. The information that is generated will be made available to the PL owners and other interested stakeholders. At a minimum, three cycles of data gathering and analysis will be completed during the life of the project.

Output 3.6: Two pilot projects compare the application of incentives in PL (land tax exemption, ICR, and/or CIF) through control groups.

98. Beginning in the second year of the project the PL owners committed to implementing the sustainable production models (see Output 3.2) will receive support for the application of conservation incentives such as property tax exemption and the ICR and/or the CIF. During the first year of the project the incentives to be applied will be identified jointly with the PL owners and national, regional, and local environmental authorities. In addition, baseline variables that will facilitate an evaluation of the impact of the incentives on biodiversity conservation will de defined. Beginning in the second year two pilot experiences in the application of incentives (one for cattle production and the other for forest production) will be implemented. In a preliminary phase (during the first year of the application of incentives) project funds will be used so that the incentives can be rapidly applied as the legal reforms and adjustments that will be developed through the project's Outcome 1 will not be available until the end of the second year (in the case of property tax payment will be made equivalent to the application of a differential rate or a percentage discount); thus, the authorities responsible for granting the incentives will be unable to do so until they have the legal basis. Once this requirement is completed at the beginning of the third year, it is expected that the relevant authorities will take over the application of the incentives directly. The 2-year time period for incentives application is the minimum time necessary to make an initial assessment of the impact on biodiversity conservation, the effect on net income for the PL owners, and the potential for replicability in other PL. This assessment will be made through comparison between PL beneficiaries (with incentives) and PL control groups (without incentives); the latter will be selected during the first year of the project with support from the cattle ranching and forest producers' associations. Finally, the pilot projects for the application of incentives in PL will provide lessons learned (e.g., criteria for selection of beneficiaries, design of agreements and payment mechanisms, monitoring and evaluation) that will be used in the development of methodological guides and proposals for regulation through Outcome 1 of the project, a well as for the development of SOPs for property tax exemption for conservation, the CIF, and the ICR.

Output 3.7: Two pilot experiences in payment for avoided habitat loss on cattle ranches and forest plantations.

99. This output will be developed in a similar way to Output 3.6. Beginning in the second year of the project two PES pilot experiences will be developed, one on a cattle ranch and the other on a forest plantation, which are designed to avoid loss or degradation of habitat (i.e., high plains and flooded savannas). This PES model constitutes an additional tool that the PL owners may use to promote conservation actions and sustainable production. During the first year of the project the PES scheme will be designed, and will include the proposal design, an analysis of the cost-effectiveness of the PES scheme as a tool for biodiversity conservation, and the definition of the payment mechanisms. Beginning in the second year of the project the PES scheme will be implemented on two PL (forest plantation and cattle ranch), and will use project funds for initial payment. Similar to the application of incentives in PL (see Output 3.6), it is expected that third parties (e.g., local government, the private sector, or a specialized market) will take over the application of incentives directly beginning in the third year. In this manner the PES scheme will be implemented during two consecutive years and an initial evaluation of its impact on biodiversity conservation and the effect on net income for the PL owners will be possible. The two pilot PES experiences for avoided habitat loss will provide valuable information for the creation of a Methodological Guide that will be developed through Output 1.2 of the project.

2.5. Key indicators, risks and assumptions

100. Project indicators are detailed in the Results Framework, which is included in Section 3 of this Project Document. A summary of the project's indicators is provided in Table 3. The risks that might prevent the project from being achieved are presented in Table 4.

Table 3 - Project indicators.

Objective / Outcome	Indicators	Goal (3 years)
Objective: To promote voluntary biodiversity conservation practices on cattle ranching and forestry PL through a revised legal/policy framework and institutional strengthening, and with the application of a pilot program in the Llanos region of Colombia.	Area with conservation–production management plans	– 40,000 ha
	Number of species for biological groups (birds and plants) in the project area (84,376 ha) is maintained	– Birds: 93 species – Plants: 105 species
	Coverage of selected terrestrial ecosystems is at least maintained	– Flooded savannas: 39,994 ha – High plains/savannas: 18,731 ha – Forests: 9,619 ha – Scrubland: 1,688 ha
Outcome 1: Adjustments in policies and laws regarding production practices promote conservation on PL.	Number of policies or laws reformed that promote conservation in the PL	– Seven (7): a) Decree 1824/1994 (CIF for Forest Plantations) b) Law 101/1993 and Decree 626/1994 (ICR) c) Law 160/1994 (land entitlement rights) d) Decree 192/2001 (General System of Participation) e) Ruling for Article 7, Law 139/1994 and Law 1377/10 (CIF for Conservation) f) Article 106, Law 1151/2007 (PES, payments by municipalities) g) Article 14, Law 299/1996 (property tax exemption)
Outcome 2: Strengthened management capacity for conservation practices on PL in the Llanos region.	– Improvement in capacity development indicators for 77 stakeholders as per UNDP Capacity Development Scorecard (baseline and target to be defined during the first 6 months of the project). 33 government officials, 20 sector representatives, 14 landowners, and 10 PRCS representatives are trained on the design, use, and monitoring of the application of private conservation tools (i.e., economic, legal, and landscape management tools)	– Capacities for engagement: X – Capacities to generate, access and use information and knowledge: X – Capacities for strategy, policy and legislation development: X – Capacities for management and implementation: X – Capacities to monitor and evaluate: X
	Number of conservation tools included in regional planning or institutional mechanisms (i.e., plan, program, and/or project)	– Five (5)
	Number of forest and cattle producers' associations that promote conservation practices in the PL	– Two (2) by project's end
	Number of organizations that facilitate the establishment of	– Three (3)

Objective / Outcome	Indicators	Goal (3 years)
	the PRSC	
	Organizations that facilitate the administration of conservation agreements and fundraising to implement conservation and sustainable production activities in PL	– Land Trust is established.
Outcome 3: Pilot program improves biodiversity conservation and producers' income in the Llanos region.	Number of farms implementing biodiversity conservation actions that are proposed in the management plans	– Fourteen (14)
	Area (ha) of land under conservation agreements administrated by the Land Trust	– 10,000 ha
	Area (ha) of established PRSC	– 10,000 ha
	Income change for landowners who implement conservation–production actions	– Baseline + up to 10% (baseline to be defined during the first 6 months of the project)

Table 4 - Risks facing the project and the risk mitigation strategy.

Risk	Rate	Mitigation risk measures
1. Landowners' resistance to adopt biodiversity-friendly and sustainable production practices.	M	Biodiversity conservation on PL depends on the willingness of landowners to adopt compatible production practices. To mitigate the risk of landowners not doing so, the project will implement pilot projects and take advantage of existing experiences to demonstrate potential users' real benefits from a biodiversity-friendly production system (sustained income, soil and water conservation, among others). Additionally, producers' training and technical assistance during the adoption of biodiversity-friendly production practices will facilitate this transition and will maintain owners' involvement with the project.
2. Difficulty in obtaining political support for the proposed legal form.	M	Government support of PL conservation-related policies is essential for project success. To obtain the needed political support for legal and policy proposals, the project will make use of the experience, relationships and alliances, and lobbying skills of partners, conservation NGOs, environmental networks, and public research organizations to maintain the interest and promote willingness of decision-makers in the proposals and their implementation.
3. Increased productivity promotes the return to traditional production practices.	L	To prevent landowners from reversing their decision of promoting conservation on PL, the project's aim will be to sign conservation agreements that define long-term commitments for the allocation of areas for conservation. Agreements will be monitored and enforced by the signatory environmental organization such as the CARs, or by the Land Trust.
4. Climate change impact on key ecosystems in production landscapes.	M	Conservation-production models will incorporate landscape management tools (e.g., live fences [hedges], wind-breaking barriers, agroforestry systems), and generate microclimates that will mitigate climate change impacts on forests and savannas. Proposed activities will provide a stable source for carbon sequestration by promoting forest and soil conservation and vertical and horizontal connectivity, allowing species mobility and refuge from temperature changes.

2.6. Financial modality

101. This project will fund activities directed towards promoting biodiversity conservation on PL. Specifically, project activities will result in new and revised PL conservation-related laws and policies, strengthened institutional capacity for the management of conservation agreements and management plans for PL and PRCS, and pilot projects to field-test proposed policy changes and biodiversity-friendly production practices. The financing support to be provided by GEF resources would consist of a grant to cover the incremental costs of these activities. Thus, GEF resources would be used mostly in providing technical assistance.

102. The project will be executed under National Implementation Modality (NIM-modality), according to the standards and regulations for UNDP cooperation in Colombia. The costs of the incremental activities that are required to contribute to global benefits that will be financed by GEF are $974,727. A summary of the project's budget is presented in Table 5.

Table 5 - Total project budget.

Outcome	Budget (USD)	Percentage of total budget
Outcome 1. Adjustments in policies and laws regarding production practices promote conservation on PL.	137,146	14.1
Outcome 2. Strengthened management capacity for conservation practices on PL in the Llanos region.	227,555	23.3
Outcome 3. Pilot program improves biodiversity conservation and producers' income in the Llanos region.	516,238	53.0
Project management costs	93,788	9.6
TOTAL	**974,727**	**100**

2.7. Cost-effectiveness

103. 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), a qualitative approach to identifying the alternative of best value and feasibility for achieving the project objective was used.

104. This project has been developed using cost-effectiveness criteria, which focus on removing the legal, institutional, and technical barriers that prevent the adoption of voluntary biodiversity conservation practices on cattle ranching and forestry PL in Colombia, particularly in the Llanos region. The project will propose legal reforms concerning incentives for conservation, institutional strengthening and individual capacity development, and will implement a field pilot program to allow effective conservation on PL based on the involvement of public and private institutions that support changes in production at the farm and landscape levels. In addition, PL owners will be aware of the environmental and economic benefits of conservation-production systems. By improving productivity and efficiency, especially in the use and management of production inputs and strategic land use planning, reductions in costs will be generated and an increase in the owners' long-term income is expected. This increased income will finance conservation activities and conservation areas, and is also expected to ensure the sustainability of the proposed actions, thereby preventing producers' return to the baseline scenario. This represents a more cost-effective approach compared with the alternative in which adjustments to existing conservation incentives will be slow or may not happen at all, and in which changes in forest plantations and cattle ranching practices leading to more sustainable production systems will not be developed at the pace needed to reduce current negative impacts on areas of biological importance. Under the alternative scenario, capacity-building for effective conservation and institutional strengthening will not occur, and diminished capacity among landowners, planners, and policy makers for promoting PL conservation at the farm

and landscape levels will be the norm. As a result, under the alternative scenario, isolated conservation actions will prevail, and will miss the opportunity to implement results from biodiversity conservation actions on PL at broader spatial and temporal scales.

2.8. Sustainability

Environmental sustainability

105. The biodiversity-friendly production practices that will be established on forest plantations and cattle ranches, as well as the application of conservation tools including biological corridors, will allow the establishment of connectivity between farms and the surrounding forests and natural savannas. These elements, together with the knowledge that will be created regarding conservation and sustainable use of biodiversity in flooded savannas and high plains ecosystems articulated with cattle ranching and forestry production systems form the project's base for environmental sustainability. As long as property owners and producers' associations obtain benefits (stable productivity and increased income), the spectrum of conservation activities at the farm and landscape levels will widen. The adoption of best production practices by the farm owners and producers' associations will allow the conservation and stabilization of soils, reduce the use of agrochemicals, and improve water quality and management of wastes associated with non-sustainable production systems. The recognition by cattle and forest producers as well as local and regional environmental authorities of the usefulness of the conservation tools that will be promoted by the project will have a long-term positive impact on the biodiversity of the natural savanna and gallery forest landscapes in the Llanos region. The ecosystem connectivity that will be established through the project, the conservation of natural ecosystems, and the use of native species on forest plantations will increase habitat availability for resident and migratory species, provide refuge for species that are vulnerable to temperature variations from climate change, and will provide stable carbon stocks through an increase in standing biomass and subsurface biomass.

Social sustainability

106. The social sustainability of the project will be achieved through the direct participation of the cattle and forestry producers in all phases of the project, including its design, implementation, and evaluation. Working with the producers' associations (e.g., FEDEMADERAS and FEDEGAN) will allow the strengthening of economic and technical support that these associations can provide the PL owners for the implementation of the conservation tools during the life of the project and beyond. In addition, the cattle and forestry producers will be beneficiaries of: a) training and extension services, b) technical assistance, and c) access to economic incentives for the implementation of conservation and sustainable production initiatives. The social sustainability of the project will also be achieved through support provided to the PRCS owners by NGOs and government agencies and their participation in the decision-making processes on different issues regarding PL conservations as members of organizations such as RESNATUR, as well as other benefits. The social sustainability at the municipal and regional levels will be based on the incorporation of concepts and the definition of specific actions related to the project regarding land use plans and development plans. In the short and long term, these actions will contribute to improved quality of life for the residents of the municipalities that will benefit from the project.

Institutional sustainability

107. Institutional sustainability is associated with the capacity of the public and private institutions to influence individual and collective decisions regarding the use, management and conservation of biodiversity in the landscapes of the Llanos region. From the regulatory point of view, the long-lasting effect of the standards and policies developed by the project will depend on the will of decision-makers at the local, regional, and national levels. To ensure their commitment and knowledge about these legal tools, the project will keep decision-makers informed about their development and benefits and promote their implementation through different methods, especially for those instruments that will be operated by the municipalities. Through the strengthening of environmental institutions (governmental and non-governmental) and producers' associations, capacity will be increased for the development of the technical and financial objectives proposed herein, as well as for supporting the PL owners in the sustainable management of their farms (e.g., extension services, information systems, development of management and business plans, and replication of successful production models). The lessons learned during the development of successful cattle ranching and forestry sustainable production models

associated with biodiversity conservation will in turn contribute to institutional sustainability, as they will be incorporated as part of their areas of work and will contribute to increased recognition in the Llanos as well as in other regions of the country.

Financial sustainability

108. Financial sustainability will be ensured through the generation of additional income for the cattle and forestry producers. Through the incorporation of biodiversity in the production cycles, the PL owners will have access to new markets and receive preferential pricing for biodiversity-friendly products. As these benefits are generated, the successful conservation and sustainable production models will be promoted by the producers' associations as part of the services that they provide for their members and the sectors they represent. The proposals for regulation of conservation incentives will include elements that ensure permanent and constant resource allocation in the annual budgets developed by the government (e.g., CIF for Conservation) and compensation mechanisms for the municipalities that will receive reduced income due to the application of conservation incentives (i.e., property tax exemptions).

2.9. Replicability

109. The design and applicability of tools to promote voluntary biodiversity conservation practices on forest and cattle ranching PL in the Llanos region will have an impact on various levels. At the national level it will facilitate the reform of policies that provide incentives for conservation on PL; at the regional level it will promote the strengthening of management capacities for government institutions, producers' associations, and civil society organizations to promote conservation on PL; and at the local level it will facilitate awareness and build capacity among producers for biodiversity conservation on their lands. The actions planned to reinforce institutional capacities and promote successful models for the application of conservation incentives on PL will be replicated nationally under the direction of the UAESPNN, the CARs, and national and regional NGOs, and will achieve the final objective of increased biodiversity conservation on PL throughout the entire country.

110. The project also has the potential to be replicated internationally, particularly among countries within the Latin American region that share similar challenges and opportunities regarding conservation on PL. The transfer of knowledge at the international level will occur through different means, including: a) linkage with other projects of similar experiences using the electronic media of project executing partner organizations (e.g., WWF, TNC, and RESNATUR); and b) promotion of initiatives with groups working for biodiversity conservation on PL in neighboring countries through meetings, congresses, and international seminars, including the Inter-American Congress on Private Lands Conservation, which is held every 2 years. Finally, the project will utilize tools made available by the UNDP and the GEF (e.g., information networks, forums, documentation, and publications) for best practices and lessons learned so that they may be used for the design and implementation of similar projects in the region.

3. STRATEGIC RESULTS FRAMEWORK AND GEF INCREMENT

3.1. Incremental Cost Analysis

Global and national objectives

111. The project objective is to promote voluntary biodiversity conservation practices on cattle ranching and forestry PL through a revised legal/policy framework and institutional strengthening, and with the application of a pilot program in the Llanos region of Colombia. The project objective will be achieved through three interrelated outcomes that will generate benefits for global-, national-, and local-level biodiversity. These benefits include: a) an increase in habitat availability for resident and migratory species in natural savannas (high plains and flooded savannas), grasslands, and gallery forests through the promotion and establishment of biodiversity-friendly production practices in 40,000 ha of PL, including the establishment of 10,000 ha of new PRCS; b) improvement in the quality of water and soils through the reduced use of agrochemicals, spatial arrangements with native species for production systems that make use of introduced species, and the management of wastes generated by the cattle production system; and c) regulation of climate change through the development of sustainable conservation-production models that will incorporate landscape management tools (e.g., live fences [hedges], wind-breaking barriers, agroforestry systems, soil stability, and biological

corridors), and a stable carbon stock. The above will be framed within a participatory, awareness-raising, and training strategy for producers and decision-makers at the local, municipal and regional levels of the forestry and cattle ranching sectors to mitigate economic, social, and environmental impacts of non-sustainable production and to promote the implementation of sustainable and biodiversity-friendly production models.

112. The project will contribute to conservation of biodiversity of global importance, including mammals (e.g., the South American Tapir [*Tapirus terrestris*], the Giant River otter [*Pteronura brasiliensis*], and the jaguar [*Panthera onca*]), resident and migratory birds (e.g., Sharp-tailed Ibis [*Cercibis oxycerca*], the Scarlet Macaw [*Ara macao*], the Solitary Sandpiper [*Tringa solitaria*], and the Canada Warble [*Wilsonia canadensis*]), and reptiles (e.g., the Orinoco crocodile [*Crocodylus intermedius*], the Giant South American turtle [*Podocnemis expansa*], and the Red-footed tortoise [*Geochelone carbonaria*]), whose habitats will also be protected through this project. The ecosystem representation of the Llanos ecoregion in the NPAS will be increased through the creation of private reserves, the establishment of connectivity through biological corridors, and the establishment of additional hectares in PL conservation around or between public PAs.

Baseline Scenario

113. Under the "business as usual" scenario important programs will be developed; however, these programs alone will not overcome the barriers that prevent biodiversity conservation practices from being voluntarily adopted on forest and cattle ranching PL in the Llanos of Colombia. The baseline programs are divided into three areas that correspond to the project's three outcomes. These three areas of work are described below and include investments made during 2009 and 2010, as well as investments that will be made from 2011-2114.

114. **Changes in the regulatory framework related to biodiversity-friendly production practices on PL**. Existing and planned investments for baseline programs and activities for the 2010-2013 time period are estimated at $48,649. There are only a few projects and programs that are currently in development or that will be developed during the life of the project that deal with legal reform, the development of legal instruments, and the creation of policies related to the promotion of biodiversity-friendly production practices on PL. Only two projects have been identified: the first, led by RESNATUR and WWF, is to develop legal tools for private conservation, particularly tools that allow the implementation of ecological easements and the legal analysis of private conservation incentives; the second project, led by FHV, has among its objectives the development of legal instruments that contribute to the consolidation of PAs and the creation of sustainable economic alternatives for owners of private reserves who form part of the El Tuparro Biosphere Reserve in the Department of Vichada.

115. **Institutional capacity for the development of conservation practices on PL in the Llanos region**. Existing and planned investments for baseline programs and activities for the 2009-2014 time period are estimated at $493,234. RESNATUR's actions have been primarily directed towards creating skills and knowledge for strengthening institutional management of PL and training for conservation incentives and sustainable cattle production systems. The above has been developed jointly with TNC and FHV with the objective of facilitating participatory farm land use planning with cattle ranch owners who are interested in implementing conservation-production activities for livestock breeding in the flooded savannas of the Department of Casanare. Beginning in 2003 the FHV started consolidating the Orinoco regional network of PRSC through the strengthening of private farm owners in the Orinoco region in legal issues, environmental policy, conservation incentives, production systems, and biodiversity conservation to influence the decision-making process on environmental issues in the region, as well as to generate knowledge regarding biodiversity in the Llanos region and to define conservation strategies. The presence of FHV and its activities as the coordinating body of the Orinoco regional network of PRSC will extend beyond the life of the project. Finally, the investment by FNC and TNC to create a proposal for management and administration of PL for conservation through a Land Trust is included among the actions of NGOs related to institutional strengthening to promote conservation on PL.

116. Investments by state agencies have been very limited. The only notable investment was by CORPORINOQUIA within the framework of the project *Rice Production System as a Clean Production Alternative* in the four municipalities of the Department of Casanare (Tauramena, Aguazul, Yopal, and Nunchia) that facilitated the training of producers in the conservation of soils and water, including agrochemical

management (the reduction in use of insecticides and herbicides, and the substitution of organic for chemical fertilizers), and to raise awareness about the importance of the sustainable management and use of natural resources as the basis to maintain the productivity and competitiveness of farming activities. Although these investments are outside of the project's work areas, they are included as part of this analysis since the lessons learned from this process will be useful for the project's actions related to the development of improved production practices.

117. **Sustainable production models and biodiversity conservation on PL in the Llanos region**. Existing and planned investments for baseline programs and activities for the 2010-2013 time period are estimated at $566,829. The investments made by NGOs have been primarily focused on the implementation of conservation and sustainable production measures in cattle ranching systems and PRCS management. The work done by RESNATUR jointly with TNC and FHV has been directed towards the implementation and evaluation of the social, financial, and environmental viability of a production system to improve productive and reproductive parameters of livestock breeding, as part of a participatory farm land use planning process. In addition, work by the NGOs has been geared towards the design of a model of economic incentives to support the implementation of sustainable development activities for the Orinoco flooded savannas.

118. The FHV, as coordinating body of the Orinoco regional network of PRSC, has made investments to consolidate and expand private PAs in the El Tuparro Biosphere Reserve (Department of Vichada), to fund the design and implementation of management plans for sustainable production systems (ecological, social, and economic), and to contribute to the conservation of ecosystems and threatened species. CORPORINOQUIA has worked to establish new PRCS (approximately 12,150 ha) within the project's work areas in the Department of Casanare.

GEF Alternative to Generate Global Benefits

119. Under the alternative GEF scenario, biodiversity conservation practices would be voluntarily adopted by the owners of forestry and cattle ranching PL in the Llanos of Colombia with a series of benefits above the baseline. First, the alternative GEF scenario will facilitate **political and legal adjustments related to production practices to promote conservation biodiversity on PL**. Incremental financing will be in the amount of $554,956, of which GEF will provide $137,146 and co-financing sources will provide $417,810. Through a participatory process and using as a guide the lessons learned from the implementation of two pilot experiences in the application of conservation incentives and two pilot experiences in payment for avoided habitat loss, the GEF alternative will facilitate the creation of five regulatory proposals that will promote voluntary conservation on PL as part of a wider strategy to incorporate biodiversity conservation criteria in the cattle and forestry sectors in Colombia. The proposals that are created with project funding will be complemented by investments from WWF, FNC, RESNATUR, TNC, UAESPNN, the Departmental Government of Casanare, the Paz de Ariporo Livestock Committee, Fundación Pantera, and Fondo Patrimonio Natural. These funds will also facilitate the development of protocols for modified or newly created standards that will be used to bring the implementation of the incentives into operation.

120. Second, **institutional and individual capacities will be strengthened for the development of conservation practices on PL in the Llanos region**. The incremental financing expected for this outcome is $1,003,498, of which GEF will provide $227,555 and co-financing sources will provide $775,943. The strengthening of capacities for the development of conservation practices on PL will be a joint effort between GEF and WWF, FNC, RESNATUR, TNC, UAESPNN, the Departmental Government of Casanare, the Paz de Ariporo Livestock Committee, Fundación Pantera, Fondo Patrimonio Natural, and the FAAN. These investments will facilitate the design of land use planning instruments at the regional and farm scales; training of state officials, association representatives, and PL and PRCS owners in the design and monitoring of the application of private conservation tools; strengthening of three civil society institutions to facilitate the establishment of new PRCS and their registration with the proper agencies, in addition to the development of contract models for conservation on PL.

121. Third, **a pilot program to improve biodiversity conservation and generate economic benefits for the producers in the Llanos region** will be developed. The incremental financing will be $1,274,065, of which GEF will provide $516,238, and $757,827 will be provided by co-financing sources. The GEF increment will

allow the establishment of a pilot program that will contribute to biodiversity conservation in 40,000 ha of PL in the Llanos region (Casanare and Vichada). With participation from WWF, FNC, RESNATUR, TNC, the Departmental Government of Casanare, CORPORINOQUIA, the Paz de Ariporo Livestock Committee, Fundación Pantera, and Acción Verde, the pilot program will facilitate the application of conservation incentives on selected cattle ranching and forestry PL, the establishment of conservation agreements, and the development of management plans for up to 14 farms. A biological and economic baseline will be developed to evaluate the project's impacts based on available information regarding the condition of ecosystems, analysis of species conservation priorities, land cover and land use maps, and an analysis of the socioeconomic characteristics of the beneficiary PL groups (with incentives) and control PL groups (without incentives).

122. System Boundary: The GEF alternative will facilitate the development of proposals for regulatory reforms that will have an impact throughout Colombia. The specific actions for the application of incentives that promote voluntary conservation on PL will be circumscribed to the Llanos ecoregion in the Departments of Casanare and Vichada in eastern Colombia. Specifically, the project will implement conservation and sustainable production activities in up to 14 (40,000 ha) cattle ranches and forest plantations in three focal areas, one for each department, and will establish 10,000 ha of new PRCS. The project will span 3 years.

123. Incremental costs summary: The incremental cost matrix that follows summarizes baseline costs and incremental activity costs for each outcome of the project. The total baseline amounts to **$1,108,712**. The costs of the incremental activities required to contribute to global benefits are **$3,135,728**, **$974,727** of which will be financed by GEF and **$2,161,001** of which will be provided by co-financers. The latter have stated their commitment to the project through written letters signed by their legal representatives. In summary, the GEF Alternative has a total cost of **$4,244,440**, of which GEF resources represent 23% (excluding PPG resources).

OUTCOME	BASELINE		ALTERNATIVE		INCREMENT	
Outcome 1: Adjustments in policies and laws regarding production practices promote conservation on PL	RESNATUR- WWF	21,622	GEF	137,146	GEF	137,146
	FHV	27,027	Co-financing	417,810	Co-financing	417,810
			WWF	40,802		
			FNC	45,000		
			RESNATUR	45,000		
			TNC	89,529		
			UAESPNN	22,715		
			Departmental Gov. of Casanare	8,108		
			Fundación Pantera	5,655		
			Fondo Patrimonio Natural	104,316		
			FAAN	56,685		
			Baseline	48,649		
	Subtotal baseline	**48,649**	**Subtotal alternative**	**603,605**	**Subtotal increment**	**554,956**
Outcome 2: Strengthened management capacity for conservation practices on PL in the Llanos region	RESNATUR-TNC- FHV	286,735	GEF	227,555	GEF	227,555
	FNC	14,541	Co-financing	775,943	Co-financing	775,943
	FHV	162,162	WWF	47,252		
	CORPORINOQUIA	8,649	FNC	60,000		
	TNC	21,147	RESNATUR	45,000		
			TNC	178,883		
			UAESPNN	54,518		
			Departmental Gov. of Casanare	8,108		
			Paz de Ariporo Livestock Committee	8,108		
			Fundación Pantera	96,384		
			Fondo Patrimonio Natural	75,627		
			FAAN	202,063		
			Baseline	493,234		

OUTCOME	BASELINE		ALTERNATIVE		INCREMENT	
	Subtotal baseline	**493,234**	**Subtotal alternative**	**1,496,732**	**Subtotal increment**	**1,003,498**
Outcome 3: Pilot program improves biodiversity conservation and producers' income in the Llanos region.	RESNATUR-TNC- FHV	286,735	GEF	516,238	GEF	516,238
	WWF	109,283	Co-financing	757,827	Co-financing	757,827
	FHV	162,162	WWF	66,995		
	CORPORINOQUIA	8,649	FNC	22,500		
			RESNATUR	45,000		
			TNC	196,967		
			Departmental Gov. of Casanare	145,946		
			CORPORINOQUIA	101,596		
			Paz de Ariporo Livestock Committee	60,811		
			Fundación Pantera	75,512		
			Acción Verde	42,500		
			Baseline	566,829		
	Subtotal baseline	**566,829**	**Subtotal alternative**	**1,840,894**	**Subtotal increment**	**1,274,065**
PROJECT MANAGEMENT	NA		GEF	93,788	GEF	93,788
			Co-financing	209,421	Co-financing	209,421
			WWF	20,251		
			FNC	22,500		
			RESNATUR	15,000		
			TNC	34,621		
			UAESPNN	13,629		
			Paz de Ariporo Livestock Committee	12,162		
			Fundación Pantera	22,449		
			Acción Verde	7,500		
			Fondo Patrimonio Natural	20,057		

OUTCOME	BASELINE		ALTERNATIVE		INCREMENT	
			FAAN	41,252		
			Baseline	0		
	Subtotal baseline	**0**	**Subtotal alternative**	**303,209**	**Subtotal increment**	**303,209**
TOTAL			Total GEF	974,727	Total GEF	974,727
			Total Co-financing	2,161,001	Total Co-financing	2,161,001
			Total Baseline	1,108,712		
	TOTAL BASELINE	**1,108,712**	**TOTAL ALTERNATIVE**	**4,244,440**	**TOTAL INCREMENT**	**3,135,728**

3.2. Project Results Framework

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP: *Public and Civil Society Organizations strengthen their capacity to formulate and implement Environmental Management programs and initiatives that guarantee the provision and maintenance of environmental goods and services, with an emphasis on conservation, restoration, sustainable use of strategic ecosystems processes; and provision, rational, and efficient use*

Country Programme Outcome Indicators: *An appropriate territorial planning instrument designed and implemented*

Primary applicable Key Environment and Sustainable Development Key Result Area: *Poverty reduction and sustainable development*

Applicable GEF Strategic Objective and Program: *BD-SP4-Policy and BD-SP5-Markets*

Applicable GEF Expected Outcomes: *Policy and regulatory frameworks governing sectors outside the environment sector incorporate measures to conserve and sustainably use biodiversity; Markets created for environmental services*

Applicable GEF Outcome Indicators: *The degree to which polices and regulations governing sectoral activities include measures to conserve and sustainably use biodiversity as measured through GEF tracking tool; Number and extent (coverage: hectares, payments generated) of new payment for environmental service schemes created*

	Indicator	**Baseline**	**Targets End of Project**	**Source of verification**	**Risks and Assumptions**
Project Objective: To promote voluntary biodiversity conservation practices on cattle ranching and forestry PL through a revised legal/policy framework and institutional strengthening, and with the application of a pilot program in the Llanos region of Colombia	Area with conservation–production management plans	– 45,969 hectares (ha)	– 85,969 ha	– Maps/GIS – Field verification reports – Conservation agreements with land owners	– Landowners willing to implement conservation-production practices – There are additional incentives to promote conservation in PL
	Number of species for biological groups (birds and plants) in the project area (84,376 ha)	– Birds: 93 species – Plants: 105 species	– Birds: 93 species – Plants: 105 species	– Reports/monitoring database – Field biological assessments	– There are no substantial changes in the land cover/use – Sampling efforts are optimal – Actions are implemented that are detectable by the available remote sensors – Environmental changes within normal variability ranges
	Change in land cover of terrestrial ecosystems	– Flooded savannas: 39,994 ha – High plains/savannas: 18,731 ha – Forests: 9,619 ha – Scrubland: 1,688 ha	Natural cover of selected ecosystems is at least maintained: – Flooded savannas: 39,994 ha – High plains/savannas: 18,731 ha – Forests: 9,619 ha – Scrubland: 1,688 ha	– Field verification notes – Maps/GIS	

Component 1: Adjustments in policies and laws regarding production practices promote conservation on PL	Number of policies or laws reformed that promote conservation in the PL	– Zero (0)	– Seven (7): a) Decree 1824/1994 (CIF for Forest Plantations) b) Law 101/1993 and Decree 626/1994 (ICR) c) Law 160/1994 (land entitlement rights) d) Decree 192/2001 (General System of Participation) e) Ruling for Article 7, Law 139/1994 and Law 1377/10 (CIF for Conservation) f) Article 106, Law 1151/2007 (PES, payments by municipalities) g) Article 14, Law 299/1996 (property tax exemption)	– Text of the adjusted rules/standards – Administrative decrees – Case-building document	– There is political will among the GoC and regional and local governments to promote the adjustment of these rules/standards – The eventual issuance of other regulation (e.g., the Forestry Law and Rural Development Statute) does not alter and contributes to the legal framework of the project's proposals

Outputs:

1.1. Methodological guidelines for the Municipal Advisory Councils on the design of differential rates, exemptions, or discounts related to property taxes.

1.2. Methodological guidelines for the design of avoided habitat loss payment schemes for forestry and cattle production within the national strategy for PES (NSPES).

1.3. Proposal for the regulation of special requirements for delegation of administration and collection of resources from the CIF for Conservation.

1.4. Proposal for the incorporation of criteria for monitoring the conservation and sustainable use of biodiversity for the CIF for forest plantations and for the ICR for cattle ranching and forest plantations.

1.5. Proposal for a Special Program for land entitlement rights within INCODER benefitting rural populations that develop sustainable cattle ranching and forestry production practices.

1.6. Operational protocols designed for the proposed or modified incentives (tax exemptions, CIF for Conservation delegation, CIF for Forest Plantations, ICR, and land titling program).

Component 2. Strengthened management capacity for conservation practices on PL in the Llanos region.	– Improvement in capacity development indicators for 77 stakeholders as per UNDP Capacity Development Scorecard (baseline and target to be defined during the first 6 months of the project). 33 government officials, 20 sector representatives, 14 landowners, and 10 PRCS representatives are trained on the design, use, and monitoring of the application of private conservation tools (i.e., economic, legal, and landscape management tools)	– Capacities for engagement: X – Capacities to generate, access and use information and knowledge: X – Capacities for strategy, policy and legislation development: X – Capacities for management and implementation: X – Capacities to monitor and evaluate: X	– Capacities for engagement: X – Capacities to generate, access and use information and knowledge: X – Capacities for strategy, policy and legislation development: X – Capacities for management and implementation: X – Capacities to monitor and evaluate: X	– Capacity Development Scorecard update	– Willingness of the agencies to train their staff – Willingness by the institutions to include the tools in their planning mechanisms
	Number of conservation tools included in regional planning or institutional mechanisms (i.e., plan, program, and/or project)	– Zero (0)	– Five (5)	– Planning instruments published	
	Number of forest and cattle producers' associations that promote conservation practices in the PL	– One (1) (FEDEGAN)	– Three (3) by project's end	– Conservation agreements or memorandum of understanding	– Willingness by the cattle and forestry sectors to incorporate biodiversity conservation practices in PL for conservation in their productive landscapes

	Number of organizations that facilitate the establishment of the PRSC	– Four (3) (UAESPNN CORPORINOQUIA, and FHV/RESNATUR)	– Six (6)	– Certificates of establishment (issued by the UAESPNN or RESNATUR)	
	Organizations that facilitate the administration of conservation agreements and fundraising to implement conservation and sustainable production activities in PL	– Zero (0)	– Land Trust is established	– Signed agreements/contracts – Financial reports	– Willingness of landowners to establish conservation agreements
Outputs: 2.1. Planning instruments for government agencies, forestry/cattle ranching organizations and landowners include tools for private conservation. 2.2. Handbook of best practices for cattle ranching and forest plantations include PL conservation strategies. 2.3. Financial strategies to support organizations that facilitate PRCS registration. 2.4. Contract models to support legal agreements in PL (easements, usufruct, leases, and trusts). 2.5. The Land Trust's administrative and operational procedures and business plan are developed.					
Component 3. Pilot program improves biodiversity conservation and producers' income in the Llanos region.	Number of farms implementing biodiversity conservation actions that are proposed in the management plans	– Ten (10)	– Twenty-four (24) farms	– Progress reports on the implementation of actions defined in the management plans – Registry (photos, field notes, maps) of land management tools implemented – Conservation agreement	– Willingness by the landowner to practice conservation – Additional incentives that promote conservation on PL in place
	Area (ha) of land under conservation agreements administrated by the Land Trust	– Zero (0)	– 10,000 ha	– GIS/maps – Signed agreements – Monitoring reports	
	Area (ha) of established PRSC	– 30,373.4 ha	– 40,373.4 ha	– Certificate of establishment	

	Income change for landowners who implement conservation–production actions	– To be defined during the first 6 months of the project	– Baseline + up to 10%	– Annual surveys on income generated by PL owners – Project monitoring and evaluation reports	– Stable markets and fiscal policies – Landowners are willing to participate – Incentives are sufficiently attractive for the landowner to participate
	Change in the landowners' perception regarding the benefits generated by the incentives	– To be defined during the first 6 months of the project	– To be defined during the first 6 months of the project	– Satisfaction level survey results	

Outputs:

3.1. Farm planning tools (e.g., maps) and landscape connectivity models for PL contribute to environmental planning at the municipal and landscape scales.
3.2. Sustainable production models are developed for cattle ranches and forest plantations to increase productivity (income) and conservation contributions.
3.3. Business plan models for forestry and cattle ranching practices that contribute to biodiversity conservation.
3.4. Management plans and conservation agreements for 40,000 ha (10,000 ha are administrated by the Land Trust and 10,000 ha are new PRCS).
3.5. A farm-and landscape-level monitoring system that measures PL program impacts on biodiversity, land use change, and income variation.
3.6. Two pilot projects compare the application of incentives in PL (land tax exemption, ICR and/or CIF) through control groups.
3.7. Two pilot experiences in payment for avoided habitat loss on cattle ranches and forest plantations.

4. TOTAL BUDGET AND WORKPLAN

Award ID:	00060909	Project ID(s):	00076894
Award Title:	Colombia: Institutional and policy strengthening to increase biodiversity conservation on production lands (PL) in Colombia		
Business Unit:	PIMS_4208_BD_MSP_COL_Conservation in Production Lands		
Project Title:	Institutional and policy strengthening to increase biodiversity conservation on production lands (PL) in Colombia		
PIMS no.	4208		
Implementing Partner (Executing Agency)	The Nature Conservancy (TNC)		

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)	Total (USD)	See Budget Note:
OUTCOME 1:	**The Nature Conservancy**		**GEF**	71300	Local Consultants	0	14,123	0	**14,123**	1
				71400	Contractual Services Individuals	16,150	11,893	12,258	**40,301**	2
				72100	Contractual Services - Companies	44,587	35,485	2,650	**82,722**	3
					Total Outcome 1	**60,737**	**61,501**	**14,908**	**137,146**	
OUTCOME 2:	**The Nature Conservancy**		**GEF**	71400	Contractual Services Individuals	21,671	19,829	17,338	**58,838**	4
				71600	Travel	13,354	5,240	2,127	**20,721**	5
				72100	Contractual Services - Companies	94,063	29,053	14,208	**137,324**	6
				72800	IT Equipment	6,000	0	0	**6,000**	7
				74500	Miscellaneous Expenses	1,672	2,000	1,000	**4,672**	8
					Total Outcome 2	**136,760**	**56,122**	**34,673**	**227,555**	
OUTCOME 3:			**GEF**	71400	Contractual Services Individuals	24,251	34,944	42,183	**101,378**	9

	The Nature Conservancy			71600	Travel	26,046	26,322	16,020	**68,388**	10
				72100	Contractual Services - Companies	99,873	148,911	84,388	**333,172**	11
				72500	Supplies	3,500	0	1,300	**4,800**	12
				72800	IT Equipment	3,000	0	0	**3,000**	13
				74500	Miscellaneous Expenses	1,500	1,500	2,500	**5,500**	14
					Total Outcome 3	**158,170**	**211,677**	**146,391**	**516,238**	
PROJECT MANAGEMENT (INCLUDES MONITORING AND EVALUATION COSTS)	**The Nature Conservancy**		**GEF**	71400	Contractual Services-Individuals	16,820	17,661	18,331	52,812	15
					Subtotal Project Management	**16,820**	**17,661**	**18,331**	**52,812**	
				71200	International Consultants	0	7,470	9,940	**17,410**	16
				71400	Contractual Services-Individuals	1667	1,667	1,666	**5,000**	17
				71600	Travel	1,214	1,861	5,016	**8,091**	18
				72100	Contractual Services - Companies	4,663	2,500	2,500	**9,663**	19
				74200	Audio Visual & Print Production Cost	0	0	812	**812**	20
					Subtotal Monitoring and Evaluation	**7,544**	**13,498**	**19,934**	**40,976**	
					Total Project Management	**24,364**	**31,159**	**38,265**	**93,788**	
					PROJECT TOTAL	**380,031**	**360,459**	**234,237**	**974,727**	

Total Budget Summary*

Donor Name	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
GEF	380,031	360,459	234,237	974,727
WWF	56,884	64,103	54,313	175,300

FNC	50,000	50,000	50,000	150,000
RESNATUR	50,000	50,000	50,000	150,000
TNC	123,762	196,968	179,270	500,000
UAESPNN	45,798	22,162	22,902	90,862
Departmental Government of Casanare	61,716	100,446	0	162,162
CORPORINOQUIA	0	99,665	1,931	101,596
Paz de Ariporo Livestock Committee	27,027	27,027	27,027	81,081
Fundación Pantera	84,998	65,116	49,886	200,000
Acción Verde	16,667	16,667	16,666	50,000
Fondo Patrimonio Natural	144,345	48,970	6,685	200,000
FAAN	187,924	68,958	43,118	300,000
TOTAL	**1,226,152**	**1,173,541**	**736,035**	**3,135,728**

* Money exchange rate: 1 US dollar = 1,850 Colombian pesos

Atlas Budget Summary

Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)
71200	International Consultants	0	7,470	9,940	17,410
71300	Local Consultants	0	14,123	0	14,123
71400	Contractual Services- Individuals	80,559	85,994	91,776	258,329
71600	Travel	40,614	33,423	23,163	97,200
72100	Contractual Services - Companies	243,186	215,949	103,746	562,881
72500	Supplies	3,500	0	1,300	4,800
72800	IT Equipment	9,000	0	0	9,000
74200	Audio Visual & Print Prod. Costs	0	0	812	812
74500	Miscellaneous Expenses	3,172	3,500	3,500	10,172
TOTAL		**380,031**	**360,459**	**234,236**	**974,727**

Budget Line & Description	Total (USD)	Percentage
71200 - International consultant	17,410	1.79
71300 - Local consultants	14,123	1.45
71400 - Contractual Services - individuals	258,329	26.5
71600 - Travel	97,200	9.97
72100 - Contractual Services - companies	562,881	57.75
72500 - Supplies	4,800	0.49
72800 - IT Equipment	9,000	0.92
74200 - Audiovisual & Printing Prod. Costs	812	0.08
74500 - Miscellaneous Expenses	10,172	1.05
TOTAL	**974,727**	**100.00**

Outcome	Total budget assigned	Percentage of total budget assigned
Outcome 1	137,146	14.1
Outcome 2	227,555	23.3
Outcome 3	516,238	53.0
Project Management	93,788	9.6
TOTAL	**974,727**	**100.0**

Project Budget Notes

Atlas Category	Atlas Code	Budget Notes
Outcome 1.		
1. Local Consultants	71300	− Consultants to help with new incentives access criteria to be negotiated with administrating agencies. Total cost: $14,123.

		▪ Legal consultant: 12 weeks at $521.00/week; ▪ Lawyer: 12 weeks at $327.96 /week; ▪ Economics expert: 12 weeks $327.95/week.
2. Contractual Services – Individuals	71400	Support for policy review at national, regional, and local levels – Project Coordinator. Total Cost: $ 35,790; 30 weeks at $1,193/week. – Regional Coordinator (Department of Vichada) Total cost: $4,510; 11 weeks at $410/week.
3. Contractual Services - Companies	72100	Contractual services for: – Designing and editing land tax exemption manual for municipalities and PES information gathering. Total cost: $915. – Conservation and production forest incentives update and writing of decrees. Total cost: $42,059. – Creating the necessary legal and political support for ICR and CIF; biodiversity access criteria incorporation. Total cost: $16,660. – Develop and negotiate a land titling program and operational protocols with INCODER. Total cost: $15,990. – Support for forestry related policy reform at national, regional, and local levels. Total cost: $7,098.
Outcome 2.		
4. Contractual Services – Individuals	71400	Support for institutional and capacity building: – Project Coordinator. Total Cost: $42,948; 36 weeks at $1,193/week. – Regional Coordinator (Department of Vichada): Total Cost: $15,890; 35 weeks at $454/week.
5. Travel	71600	– Airfares, land travel costs, vehicle rental for: a) follow up on PL program implementation; b) training for government organizations on conservation and PL tools; c) training for PRCS on business plans; d) Land Trust analysis and start up. Total cost: $20,721.
6. Contractual Services - Companies	72100	– Contractual services to provide food and logistics for: a) conservation tools workshops for producers' associations; b) business plans and financial plan training workshop for PRCS; c) financial strategies development workshop for PRCS. Total cost: $25,902. – Contractual services for: a) CORPORINOQUIA and UAESPNN strategic plan review; b) design and help implement a PL program; c) contracts design for incentives' pilot program. Total cost $28,658. – Contractual services for: a) design training materials on tax exemptions and biodiversity conservation activities; b) producers' associations follow up on tax exemption activities adoption. Total cost: $12,770. – Contractual services for: a) training material development with PRCS; b) training in business plan and financial strategy development. Total cost: $16,118. – Contractual services for: a) Land Trust operations analysis; b) Land Trust start-up. Total cost $28,135. – Contractual services to provide support for institutional and capacity building, and development of landscape and farm planning instruments. Total cost $25,741.

7. IT Equipment	72800	– Computers (2) for support to institutional and individual capacity building. Total cost $6,000; $3,000/unit.
8. Miscellaneous Expenses	74500	– Incidental expenses related to business and financial plan training sessions, and planning tools development. Total cost: $4,672.
Outcome 3.		
9. Contractual Services Individuals	71400	Support for selection of farms, technical assistance, and conservation-sustainable production models development: – Project Contractual services for Coordinator. Total cost: $71,580; 60 weeks at $1,193. – Regional Coordinator for the Department of Vichada. Total cost: $29,798; 65.5 weeks at $448.09/week.
10. Travel	71600	– Airfares, land travel costs, vehicle rental for project personnel for: a) meetings with stakeholders for farms selection; b) meetings to negotiate best practices implementation at farm level; c) field trips with land owners for best practices training; d) farm planning. Total cost: $68,388.
11. Contractual Services - Companies	72100	Contractual services for – Project personnel meetings to evaluate incentives implementation at farm level. Total cost: $2,972. – Cost effectiveness of PES schemes and PES payments in 7,000 ha. Total cost: $89,281. – Payment for land tax exemption incentive for 5,000 ha. Total cost: $50,670. – Biodiversity baseline development and monitoring in Vichada. Total cost: $54,054. – Develop farm management plans and signing of conservation agreements. Total cost: $16,655. – Training and advice on farm business plans for private preserves. Total cost: $21,899. – Field trips with land owners for training in PL best practices. Total cost: $25,479. – Field implementation of sustainable production alternatives. Total cost: $26,041. – Provide support for selection of farms, technical assistance, and conservation-sustainable production models development. Total cost $46,121.
12. Supplies	72500	– Office supplies, conservation-sustainable production model development, and field monitoring activities. Total cost $4,800.
13. IT Equipment	72800	– Computer (1) for support to conservation-sustainable production model development, and field monitoring activities. Total cost $3,000.
14. Miscellaneous Expenses	74500	– Incidental expenses related to implementation of a pilot program to improve biodiversity conservation and producers' income.
Project Management		
15. Contractual Services- Individuals	71400	– Project coordinator: project planning, day-to-day management of project activities, project reporting, maintaining key relationships among stakeholders. Total cost: $ 21,652; 18 weeks months at $1,202.89/week. – Financial Specialist. Responsible for financial management of the project, accounting, purchasing, and reporting. Total cost: $31,160; 142.4 weeks at $218.82/week.
Monitoring and Evaluation		

16. International Consultants	71200	– Mid-term project evaluation: Total cost: $7,470; 4 weeks at $2,490 /week. – Final project evaluation. Total cost: $9,940; 4 weeks at $2,485/week.
17. Contractual Services – Individuals	71400	– Project board meetings (2 per year). Total cost: 3,000. – Review and systematization of lessons learned and best practices: Total cost $2,000.
18. Travel	71600	– Airfares, land travel costs, accommodation, vehicle rental for mid-term evaluation ($5,641), final evaluation and monitoring and evaluation (M&E) in the field ($2,450).
19. Contractual Services – Individuals	71400	– Project Inception Workshop. Total cost $2,163. – External audit (3). Total cost: $7,500
20. Audio Visual & Print Production Cost	74200	– Printing of Terminal Report. Total cost $812.

5. MANAGEMENT ARRANGEMENTS

124. This project will be nationally implemented (NIM-modality) and is an integral part of the UNDP Country Program Action Plan (CPAP) [2008 - 2012] signed by the GoC and the UNDP in 2008. The signing of the UNDP CPAP constitutes a legal endorsement by the GoC.

125. 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. As the project is cross-functional and involves various stakeholders, its 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.

126. The UNDP will act as the Implementing Agency for this project. 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, 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 principles of equal opportunities to all, development results, best value for the money, fairness, integrity, transparency, and effective international competition of transparency, of the United Nations and all financial transactions and agreements will similarly follow the same principles.

127. The project will be executed by TNC in Colombia as the implementing partner. TNC will coordinate work with other institutions collaborating on this project. TNC will be the sole project manager of the project. The capacity assessment results of the implementing partner (TNC) are included in Annex 8.3 of this project document.

128. The Director of TNC's Northern Andes & Southern Central America Conservation Program and Legal Representative of TNC in Colombia will serve as 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. The duration of the project is three (3) years.

5.1. UNDP Support Services

129. 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 Environmental Program 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.

130. Direct cash transfers will be used as payment modality to facilitate the project's timely execution. If TNC requires execution services support from the UNDP CO that is outside the purview of implementation services as is prescribed by the relevant program and financial manuals, standard ISS fees, using the universally assigned rates, will be charged to the Project.

131. TNC will retain the rights to set rates for associated project activities such as mileage, internal daily survival allowances, consultancy fees, etc., as they relate to project staff contracted by the project. However, rates may not exceed UNDP´s internal rates.

132. The project will be managed by TNC based on UNDP's principles of ethics and transparency. Taking these principles into account, TNC 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 6

months, the Project Director should inform the UNDP on any updates or changes made on the manual. UNDP should review and approve the proposed changes.

5.2. Collaborative arrangements with related projects

133. Steps will be taken by the SC to include in its membership National Project Coordinators who are managing related projects to ensure coordination and synchronization of efforts as well as promote cross-fertilization, where possible.

5.3. Inputs to be provided by all partners

134. The direct execution of project activities is expected to be carried out through the Project Management Unit (PMU), which will be physically located within TNC in Bogotá, Colombia. Oversight of the PMU will be a function of the Project Director.

135. TNC will implement the project with the participation of the members of the Colombian Interagency Group for Private Conservation Tools (G5): RESNATUR, FNC, WWF, TNC, and the UAESPNN. Each of these organizations brings a wealth of technical skills, best practices, and expertise to ensure success in achieving the expected outcomes of the project.

136. RESNATUR, an organization with more than 264 associates throughout the country within 11 regional branches, will provide valuable field experience and knowledge of the legal system, as well as networking and lobbying skills that will be instrumental for the implementation of Component 1 of the project. In addition, RESNATUR, through its Orinoco branch coordinated by the FHV, will be a key player in achieving the expected outcomes of Component 3 of the project. FNC, with its ample experience in biodiversity conservation and the development of alternatives for the sustainable use of natural resources in Colombia, will be key in the strengthening of institutional capacities for the development of conservation practices on PL in the Llanos (Component 2). In addition, FNC's experience in the management of scientific information and the development of protocols for best practices related to the sustainable use of natural resources will be central in providing field support for the activities of Component 3, as well as the establishment of the Land Trust. WWF brings a wealth of strategies, experience, and methodologies that will be key throughout the project, especially in the promotion of legal and institutional adjustments (Component 1) and strengthening local capacity for biodiversity conservation in PL (Component 2).

137. Finally, the UAESPNN will have a key role in facilitating the negotiation processes and defining the policies necessary to guarantee the feasibility of the legal reforms to be promoted by the project, as well as their implementation.

5.4. Audit arrangements

138. The GoC, through the signed SBAA, is responsible for UNDP-assisted development projects and the realization of their objectives as described in the relevant Project Documents; thus, maintaining its own accounting system necessary to justify the expenditures financed by UNDP or by the associated donors. UNDP Financial Regulations require any project that has spent over $300,000 USD in a given financial year to be audited. Additionally, any project funded by GEF with expenditures of $100,000 USD or more within one financial year must also be audited.

139. TNC will provide the UNDP Resident Representative with certified periodic financial statements relating to the status of UNDP (including GEF) funds disbursed as direct cash transfers in accordance with the established procedures set out in the Programming and Finance manuals. Independent audits will be conducted by a suitably qualified commercial auditing firm to be hired by the UNDP CO, and the project should allocate resources for this requirement.

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

140. In order to accord proper acknowledgement to GEF and UNDP for providing funding, the GEF and UNDP logos should appear on all project presentations, 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.

141. In accordance with standard UNDP procedures, all resources and equipment obtained through project support remain property of the UNDP until project closure or before if it is required by UNDP, at which time a decision will be made as to how to dispose of these resources. The Project Director will supervise the correct use and maintenance of these resources and equipments.

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

142. TNC will establish a PMU responsible for directing, supervising, and coordinating project implementation. The established PMU will be hosted by TNC and supported by its technical and administrative staff and its network experts.

143. **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. 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, the 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. In case a consensus cannot be reached within the SC, the final decision shall rest with the UNDP Program Officer.

144. 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. In addition, it approves the appointment and responsibilities of the Project Coordinator and any delegation of its project assurance responsibilities.

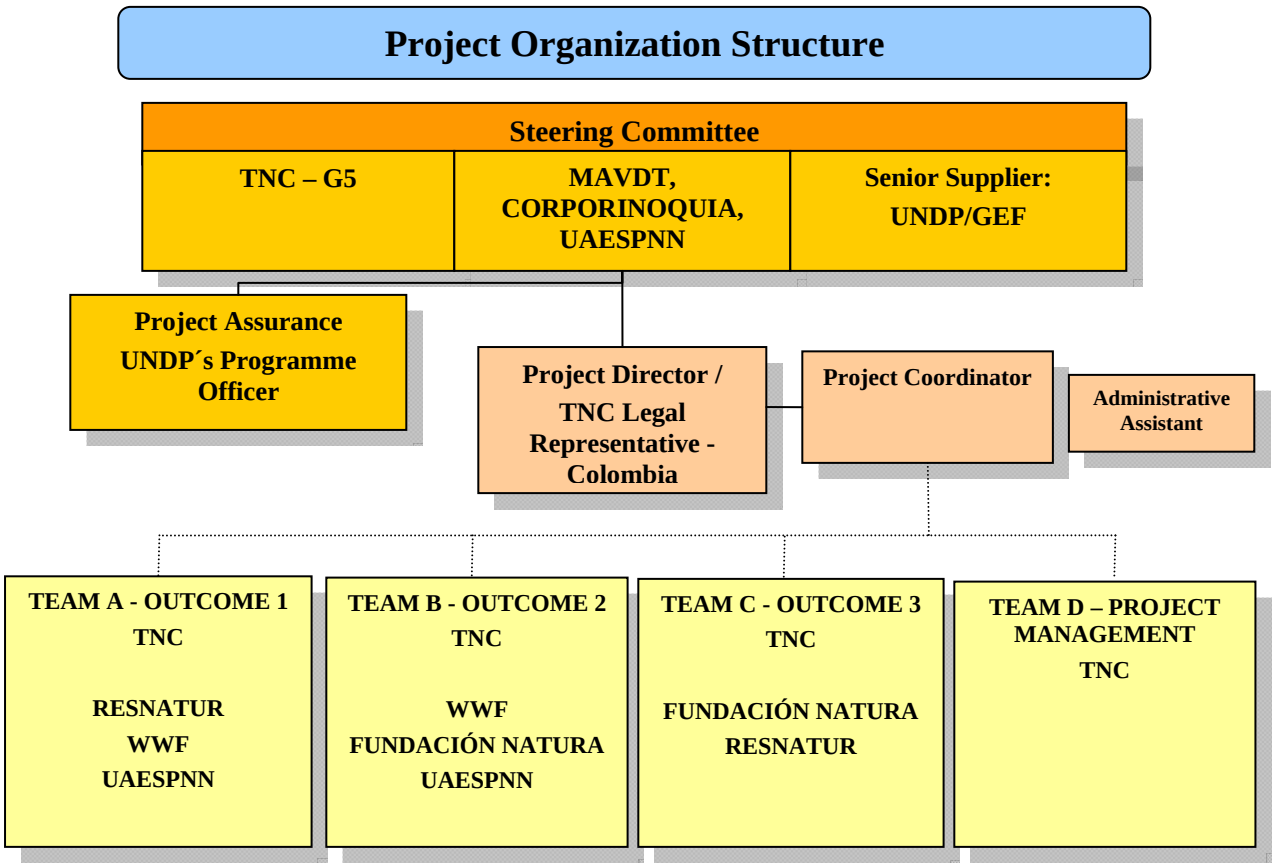
145. The SC will be composed of the Legal Representative of the TNC Colombia, the UNDP's Resident Representative or his/her delegates, the UNDP's Environmental Program Officer, the Director of the UAESPNN, the Director of the Ecosystems Unit of the MAVDT, and the Project Coordinator, and a representative of CORPORINOQUIA, MADR, INCODER, and the G5. The composition of the SC and the schedule of its first meeting should be agreed by UNDP, the G5 and TNC during the inception workshop. The SC will meet once every six months; however, additional meetings may be scheduled based on the project's needs. The Project Director will be responsible of coordinating the SC meetings with the Environmental Programme Officer at the UNDP.

146. A **Technical Committee** (TC) will be established for overall project follow-up. The TC will meet once every three months, or whenever necessary. The TC will be composed of the Project Coordinator, a delegate from the Project Directors, a representative from the Ecosystems Unit of the MAVDT, a representative from the G5 and the UNDP's Environmental Program Officer. Responsibilities of the TC include supervision of the timely implementation of project activities; oversight of project expenditures according to the project's work plan; approve the quarterly work plans; promoting administrative efficiency and guaranteeing that the project's activities and deliverables follow the highest standards; providing guidance to the Project Director or the SC to support decision-making; and requesting that the project team implement corrective measures when necessary. TNC will provide overall project oversight as well as political, technical, logistic, and administrative support for successful project implementation following UNDP and GEF guidelines.

147. **The Project Coordinator** will be contracted by TNC following the principles of transparency and equal opportunities for everybody, and will be financially supported by project funds. TNC should agree the terms of reference of the project coordinator with UNDP´s Environment Programme Officer and UNDP should participate in its selection process.

148. The Project Coordinator has the authority to run the project on a day-to-day basis on behalf of the Implementing Partners 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.

149. **Project Assurance**: Project assurance is the responsibility of each SC member; however, the role can be delegated. 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 UNDP Environmental Program Officer will hold the project assurance role.



6. MONITORING FRAMEWORK AND EVALUATION

150. 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, and mid-term and final evaluations. 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.

Project Inception Phase

151. 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 (HQ) as appropriate.

152. 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 and the GEF SO2 Tracking Tool. This will include reviewing the results framework (indicators, means of verification, and assumptions), 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.

153. 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.

154. 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 again, 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.

Monitoring Responsibilities and Events

155. 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.

156. **Day-to-day monitoring** of implementation progress will be the responsibility of the Project Coordinator based on the project's AWP and its indicators. The Project Coordinator 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 Project Coordinator 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.

157. 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, such as annual assessments of representative biological groups (trees and birds) present in PL (forestry and livestock) that will benefit from project implementation and that will serve as pilot sites.

158. **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/AWP 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.

159. **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 Annual Project Report (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.

160. The APR will be used as one of the basic documents for discussions in the TPC. The Project Coordinator will present the APR to the TPC, highlighting policy issues and recommendations for the decision of the TPC participants. The Project Coordinator 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.

161. The **Terminal TPC Review** is held in the last month of project operations. The Project Coordinator 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.

Project Monitoring Reporting

162. The Project Coordinator, 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.

163. 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.

164. 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/best practices.

165. 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.

166. **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.

167. **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.

168. 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.

169. **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.

170. **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.

Independent Evaluation

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

172. An independent **Mid-Term Evaluation** will be undertaken at exactly the mid-point of the project lifetime (i.e., December 2012). 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 Office Evaluation Resource Center (ERC). The GEF SO2 Tracking Tool for the project will also be completed during the mid-term evaluation cycle.

173. 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 Evaluation Office Evaluation Resource Center (ERC). The ToRs for this evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-GEF RCU. The GEF SO2 Tracking Tool will also be completed during the final evaluation.

Audit Clause

174. The GoC will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The audit will be conducted according to UNDP's financial regulations, rules, and audit policies by the legally recognized auditor of the GoC, or by a commercial auditor engaged by the GoC.

Learning and Knowledge Sharing

175. 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. Specifically, the project will ensure coordination in terms of avoiding overlap, sharing best practices, and generating knowledge products of best practices in the area of biodiversity mainstreaming in productive landscapes with the current projects of Colombia's portfolio.

M&E work plan and budget

Type of M&E activity	Responsible Parties	Budget US$*	Time frame
Inception Workshop	• Project Coordinator • UNDP CO	2,163 (GEF) 3,250 (CoF)	Within first two months of project

Type of M&E activity	Responsible Parties	Budget US$*	Time frame
	• UNDP GEF		start-up
Inception Report	• Project Team • UNDP CO	None	Immediately following IW
Measurement of Means of Verification of project results	• UNDP GEF Regional Technical Advisor/Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be determined during the initial phase of implementation of the project and the IW.	Start, mid-point, and end of project
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 ARR/PIR and to the definition of annual work plans
ARR 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 Meetings	• Project Coordinator • UNCP-CO • GoC representatives	3,000 (GEF) 7,000 (CoF) (average 3,333 per year)	Two times per year
Quarterly progress reports	• Project Coordinator and Team	None	Quarterly
Technical reports	• Project Coordinator and Team	None	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)	12,375 (GEF) 13,625 (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)	13,126 (GEF) 22,800 (GEF)	At least three months before the end of project implementation
Terminal Report	• Project Team • UNDP-CO	812 (GEF) 1,849 (GEF)	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)	2,000 (GEF) 4,500 (CoF) (average 2,250 per year)	Yearly
Audit	• UNDP-CO • Project Coordinator and Team	7,500 (GEF) 3,000 (CoF) (average 3,500 per year)	Yearly
Visits to field sites	• UNDP-CO • UNDP-GEF RCU (as appropriate)	No separate M&E cost: paid from IA fees and	Yearly

Type of M&E activity	Responsible Parties	Budget US$*		Time frame
	• GoC representatives	operational budget		
TOTAL INDICATIVE COST (*Excluding project team staff time and UNDP staff and travel expenses)		GEF	$ 40,976	
		CoF	$ 56,024	
		Total	**$97,000**	

7. LEGAL CONTEXT

176. This Project Document shall be the instrument referred to as such in Article I of the SBAA between the GoC and the UNDP, signed by the parties on 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.

177. 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: (i) revision of, or addition to, any of the annexes to the Project Document; (ii) 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; (iii) 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 (iv) inclusion of additional annexes and attachments only as set out here in this Project Document.

178. 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.

179. Consistent with the Article III of the SBBA, 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.

180. 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.

181. 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.

182. 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.

8. ANNEXES

8.1. Risk Analysis

Project Title: Institutional and policy strengthening to increase biodiversity conservation on production lands (PL) in Colombia	**Award ID:** 00060909	**Date:** December 7, 2010

#	Description	Date Identified	Type	Probability and Impact	Countermeasures/ Management Response	Owner	Submitted, Updated By	Last Update	Status
1	Landowners' resistance to adopt biodiversity-friendly and sustainable production practices	October, 2009 (at PIF)	Strategic	Because the adoption of biodiversity-friendly and sustainable production practices is voluntary, if they are not adopted by landowners, the opportunities for the development of models for applying incentives and implementing PES schemes will be limited. Enter probability on a scale from 1 (low) to 5 (high) P = 3 Enter impact on a scale from 1 (low) to 5 (high) I = 3	The project will implement pilot projects and will provide technical assistance to demonstrate potential users' real benefits of a biodiversity-friendly production system (sustained income, soil and water conservation, among others). Additionally, producers' training and technical assistance during the adoption of biodiversity-friendly production practices will facilitate this transition and will maintain owners' involvement with the project.	The Nature Conservancy	The Nature Conservancy	November, 2010	Risk continues to persist and may be increasing
2	Difficulty in obtaining	October, 2009 (at	Political	The lack of political support for policy	To obtain the necessary political	The Nature Conservancy,	The Nature	November,	Risk continues

	political support for the proposed legal form	PIF)		proposals for the application of conservation incentives may mean that the resources that are necessary at the municipal and national levels will not be available for the adoption of incentives by the PL owners. Enter probability on a scale from 1 (low) to 5 (high) P = 3 Enter impact on a scale from 1 (low) to 5 (high) I = 3	support for legal and policy proposals, the project will make use of the experiences, relationships and alliances, and lobbying skills of partners, conservation NGOs, environmental networks, and public research organizations to maintain the interest and willingness of decision-makers in adopting the proposals and facilitating their implementation.	executing partners, and UNDP	Conservancy	2010	to persist. The scope of the legal reform to be developed through the project was reduced in order to decrease this risk.
3	Increased productivity promotes the return to traditional production practices	October, 2009 (at PIF)	Financial	If land owners decided to abandon their commitments to implement sustainable production practices, the project's ability to determine the impact of conservation incentives on PL and generate additional revenue would be compromised. Additionally, the future replication of successful models of conservation and production could be	To prevent landowners from reversing their decision of promoting conservation PL, the project's aim will be to sign conservation agreements that define long-term commitments for the allocation of areas for conservation. Agreements will be monitored and enforced by the signatory	The Nature Conservancy and executing partners	The Nature Conservancy	November, 2010	Risk continues to persist and may be increasing

				affected. Enter probability on a scale from 1 (low) to 5 (high) P = 2 Enter impact on a scale from 1 (low) to 5 (high) I = 3	environmental organization such as the CORPORINOQUIA or by the LT				
4	Climate change impact on key ecosystems in production landscapes	October, 2009 (at PIF)	Environmental	Climate change can have an effect on hydrological processes and seasonal rains affecting natural savannas, grasslands, and gallery forests. Rising temperatures and prolonged dry seasons may increase desertification trends in critical areas and reduce productivity. Enter probability on a scale from 1 (low) to 5 (high) P = 3 Enter impact on a scale from 1 (low) to 5 (high) I = 3	Production-conservation models will incorporate landscape management tools (e.g., live fences, wind-breaking barriers, agro-forestry systems), and generate microclimates that will mitigate climate change impacts on forests, savannas, and grasslands. The proposed activities will provide a stable source for carbon sequestration by promoting forest and soil conservation and vertical and horizontal connectivity, allowing species mobility and refuge from temperature changes.	The Nature Conservancy, environmental authorities (CORPORINOQUIA and MAVDT), and executing partners	The Nature Conservancy	November, 2010	Risk continues to persist and may be increasing

8.2. Terms of Reference for Key Project Staff

The following are the terms of reference (ToRs) for the project management staff. The Project Management Unit (PMU) will be staffed by a full-time Project Coordinator and a full-time Project Administrator/Finance Assistant, both of which will be nationally-recruited positions. ToRs for these positions will be further discussed and 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 6 months of the project, full ToRs will be drafted and selection and hiring procedures will be defined.

Project Coordinator

The project Implementing Partner, with the assistance of the UNDP CO, will hire the Project Coordinator 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 staff supervision, stakeholder liaison, implementation of activities, and reporting. The Project Coordinator will head the PMU, and will be responsible for day-to-day management of project activities and the delivery of its outputs. The Project Coordinator will support and be guided by the Project Board (PB) and will coordinate the activities of all partners, staff, and consultants as they relate to the execution of the project. The Project Coordinator will be responsible for the following:

Tasks:

- Prepare detailed work plan and budget under the guidance of the PB.
- Make recommendations for modifications to the project budget and, where relevant, submit proposals for budget revisions to the PB and UNDP.
- Facilitate project planning and decision-making sessions.
- Organize the contracting of consultants, other entities and experts for the project, including preparing ToRs for all technical assistance required, and supervising their work.
- Provide technical guidance and oversight for all project activities.
- Oversee the progress of the project components conducted by the local and international experts, consultants, sub-contractors 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.
- Organize PB meetings at least once every quarter as well as annual and final review meetings as required by the UNDP, and act as the secretary to the PB.
- Coordinate and report the work of all stakeholders under the guidance of the PB to the GOB and the UNDP.
- Organize required workshops, consultations, or meetings.
- Prepare PIRs/APRs and attend annual review meetings.
- Ensure that all relevant information is available in a timely fashion to the PB about activities nationally, including private and public sector activities, which impact on the project.
- Prepare and submit quarterly progress and financial reports to the PB and UNDP as required.
- Assist in the development of educational, promotional, and marketing materials regarding the objectives of the project, its achievements, and other topics relevant to the project.
- Coordinate and participate in monitoring and evaluation exercises to appraise project success and make recommendations for modifications to the project.
- 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 that all project activities are carried out on schedule and within budget to achieve the project outputs.

Outputs:
- Detailed work plan indicating dates for deliverables and budget.
- 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 the PB and UNDP (in the format specified by UNDP) and discussed at the quarterly meetings of the PB.
- 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 PB meetings.
- Yearly PIRs/APRs.
- Adaptive management of project.

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

Qualifications (indicative):
- A graduate academic degree in areas relevant to the project (e.g., Sustainable Productive Lands, PAs/natural resource management and conservation).
- Minimum 5 years of experience in project management with at least 2 years of experience in Productive Lands-Private Lands Conservation management.
- Experience facilitating consultative processes, preferably in the field of natural resource management.
- Working knowledge of private lands conservation/productive lands management and planning.
- Proven ability to promote cooperation between and negotiate with a range of actors, and to organize and coordinate multi-disciplinary teams.
- Strong leadership and team-building skills.
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives.
- Familiarity with logical frameworks and strategic planning.
- Strong computer skills.
- Excellent communication and writing skills.
- Previous experience working with a UNDP/GEF-supported project is considered an asset.

Project Administrator/Finance Assistant

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 the PB. This position also provides support to the Project Coordinator for the day-to-day management of the project. The Project Administrator/Finance Assistant will have the following responsibilities:

Financial management:
- 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.
- Assist the Project Coordinator in all project implementation activities.

- Provide assistance to partner agencies involved in pilot initiatives, performing and monitoring general administrative and financial aspects of pilots to ensure compliance with budgeted costs and in line with UNDP/GOB policies and procedures.
- Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized.
- Assist project team in drafting quarterly project progress reports concerning financial issues.
- Ensure that UNDP procurement rules are followed in procurement activities carried out by the project and bear the 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.
- Provide assistance in all logistic arrangements concerning project implementation.

Administrative management:

- Make logistical arrangements for the organization of meetings and round tables.
- When necessary, provide secretarial support for the project staff.
- Draft contracts for international/local consultants and entities.
- Draft correspondence related to assigned project areas; clarifies, follows up, responds to requests for information.
- Assume overall responsibility for administrative matters of a more general nature, such as registry and maintenance of project files.
- Perform all other administrative and financial related duties, upon request.
- Provides support to the Project Coordinator in coordination and arrangement of planned activities and their timely implementation.
- Assist the Project Coordinator in liaising with key stakeholders from the GOB counterpart, donor community, civil society, and NGOs as required.

Qualifications and skills:

- At least an Associate Degree in finance, business sciences or related fields.
- Experience in administrative work, preferably in an international organization or related to project execution.
- A demonstrated ability in financial management of development projects and in liaising and cooperating with government officials, NGOs, mass media.
- 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 English.
- Good knowledge of Word, Outlook, Internet Explorer, and Excel is necessary.

8.3. Capacity Assessment

This section details the capacity results of the Implementing Partner, which was evaluated using the Harmonized Approach to Cash Transfers (HACT). HACT has replaced a variety of cash transfer procedures applied by different UN agencies. It is based on the principles for aid effectiveness as described in the Paris Declaration.

HACT is a risk-informed approach to collaboration with government and other implementing partners, and applies to all situations and partners. Some partners have relatively strong internal control systems, and the cooperating UN agency can rely on these systems. Other partners may have weak systems, and

the UN agency may have to increase its own monitoring activities to seek the assurance that UN funds are effectively used by the implementing partners for the intended purposes.

Both HACT Checklists 1 and 2 were initially applied to TNC in September of 2010. The result of this initial assessment categorized the TNC as a **Low-Risk Implementing Partner**. The assessment findings follow.

Methodology Employed. The UNDP CO utilized the methodology as was prescribed in *UNDP: Guidelines for Assessing the Financial Management Capacity of Implementing Partners Receiving Cash from an Agency*. The findings from the questionnaire were then cross-referenced with information gathered through interviews with the Implementing Partner.

Implementing Partner: The Nature Conservancy - TNC

Financial Management Capacity: (Based on application of Checklists 1 and 2) TNC is considered a low-risk counterpart:

1. **Implementing Partner:** Risk Management Rating – LOW. Although the Implementing Partner doesn't have experience in the management of UN projects, TNC has experience managing projects similar and greater in size funded by other organizations. Their execution of these initiatives has been carried out without incidence. The project will be executed under their own procedures that are in line with UNDP project management procedures and requirements. Reporting is guided by the signed Project Document.
2. **Funds Flow:** Risk Management Rating – LOW. It was determined that the Implementing Partner has the capacity to receive and transfer funds adequately. The UNDP CO is expected to continue to monitor funds transfer and execution through participation on the SC, TPC and through reconciliation of accounts and periodic monitoring of supporting documents. For this project TNC agreed to open a specific bank account in order to manage the funds that UNDP will transfer. Funds will be transferred to the Implementing Partner in Colombian Pesos, minimizing the need for the management of foreign exchange risks.
3. **Staffing:** Risk Management Rating – LOW. The Implementing Partner functions with qualified financial staff trained for accountability. Although TNC will apply their own procedures, the UNDP CO Finance Officer will work closely with project staff to ensure their full understanding of all UNDP finance and procurement procedures in order to guarantee the application of UNDP's principles of transparency and ethics.
4. **Accounting Policies and Procedures:** Risk Management Rating – LOW. The project accounting system is based on the system used by TNC, and is designed especially to track project finances based on authorized expenditures. All accounting and supporting documentation is maintained; however, there is a need to reconcile these practices with UNDP's reporting procedures. All variations to the budget must first be approved by the UNDP CO. TNC agree to define a manual of procedures that will be in line with UNDP principles and that will apply to this project. This manual will be presented during the inception workshop and will be added as an annex to this Project Document after that Inception Workshop.
5. **Internal Audit:** Risk Management Rating – LOW. The internal structure of TNC includes an internal audit under the supervision of the TNC's Legal Representative in Colombia and TNC´s HQ.
6. **External Audit:** Risk Management Rating – LOW. The project is expected to enable structures for external auditing. External audits will be carried out in compliance with UNDP/GEF requirements.

7. **Reporting and Monitoring:** Risk Management Rating – LOW. Financial statements should be prepared for the project on a timeline agreed to by the donor and quarterly detailed expenditure reports should be presented to the Project Steering Committee (SC). All finances should be reported against the AWP Plan approved by the SC.
8. **Information Systems:** Risk Management Rating – LOW. The existing system is completely computerized and can adequately support the project.

Overall Risk Assessment: LOW. It is the assessor's opinion that there are no significant indications of inability or lack of capacity of the Implementing Partner to adequately execute and report on project funds. UNDP continues oversight through participation in the project SC and TC and maintaining control over significant budgetary revisions; their involvement assists in negating any identified reporting weaknesses.

Decision on Payment Modality: Based on the findings of these exercises, the Implementing Partner is considered LOW risk as the financial systems that are in place adequately support transparency and accountability in finance transfer and management. Oversight of the Implementing Partner by senior staff and a proposed SC also contributes to the assessor's confidence in successful project execution and minimizes the possibility of mismanagement of donor funds.

8.4. Stakeholder Involvement Plan

During the PPG phase of the Project, key stakeholders participated in planning and project design workshops and several smaller focus group sessions and meetings. These participation forums were: a) PPG phase introduction workshop, b) project Results Framework Workshop, and c) multiple individual meetings and consultations. Detailed descriptions of these meetings are presented below.

Stakeholder Participation during Project Preparation

Introduction Workshop: The Introduction Workshop was held on held on April 22, 2010 in Bogotá, Colombia. The objectives of this workshop were to: a) help the PPG project team and other stakeholders to understand and take ownership of the project goals and objectives, b) ensure that the project team and other stakeholders have a clear understanding of what the PPG phase seeks to achieve as well as their own roles in successfully carrying out the PPG activities, c) re-build commitment and momentum among key stakeholders for the PPG phase, and d) validate the PPG Work Plan.

The participants in the PPG Phase Introduction Workshop included MADVT (Office of International Affairs), UAESPNN, TNC, UNDP CO, UNDP-GEF RCU, FNC, WWF, RESNATUR, TNC and the PPG project.

Project Results Framework Workshop: The Project Results Framework Workshop was held on July 26-29, 2010 in Bogotá, Colombia. The objectives of this workshop were to: a) define the Results Framework, including the revised project outputs, indicators, baseline information, goals, verification mechanisms, and assumptions; b) develop a preliminary definition of the project's activities for each output/outcome; c) develop preliminary project costing, including co-financing; and d) update the PPG Work Plan.

The participants in the Workshop included more than 30 people, including representatives of government institutions (e.g., MADVT, Ministry of Agriculture, UAESPNN, and CORPOICA), regional and local governments (e.g., Casanare), civil society (e.g., FNC, Fundación Palmarito, RESNATUR, TNC, and WWF), owners of PL in the Llanos, UNDP CO, and PPG consultants.

Stakeholder Participation Plan for the Project Implementation Phase

Objectives of the Stakeholder Participation Plan: The formulation of the stakeholder participation plan has the following objectives: a) to clearly identify the basic roles and responsibilities of the main

participants in this project, b) to ensure full knowledge of those involved concerning the progress and obstacles in project development and to take advantage of the experience and skills of the participants to enhance project activities, and c) to indentify key instances in the project cycle where stakeholder involvement will occur. The ultimate purpose of the stakeholder participation plan will be the long-term sustainability of the project achievements, based on transparency and their effective participation.

Summary of Stakeholder Roles in Project Implementation:

Stakeholders	**Form of participation in Project Implementation (roles and responsibilities)**
TNC	TNC is the Implementing Partner of the project jointly with other members of the G5 and in coordination with the MAVDT. TNC will be responsible for programming, implementation, and monitoring of project activities.
FNC	FNC, a G5 member, will contribute to the strengthening of institutional capacities for the development of conservation practices on PL in the Llanos, management of scientific information, and the development of protocols for best practices related to biodiversity conservation and sustainable use of natural resources.
RESNATUR	RESNATUR, a G5 member, will provide field-level experience and legal knowledge, as well as networking and lobbying skills that will be instrumental for advancing the proposed legal and policy reforms. With the support of the FHV, it will play a central role in piloting projects for biodiversity conservation and sustainable production on PL.
UAESPNN	UAESPNN, a G5 member, will have a key role in facilitating negotiation processes and defining policies necessary to guarantee the feasibility of the legal reforms to be promoted by the project as well as their implementation, and will be in charge of the registration process of new PRCS. The UAESPNN will have representation in the SC.
WWF	WWF, a G5 member, will play a key role in promoting legal and institutional adjustments and strengthening local capacity for biodiversity conservation in PL. Additionally, with its extensive experience in the Llanos region in the development of conservation tools, and as a leader in cross-sector work, WWF will be a key asset in providing technical advice to the project, in addition to serving a co-financing partner.
MAVDT	The MAVDT is the GEF Operational Focal Point, making its participation in project oversight activities crucial. The MADVT will play a major role in providing guidance for the proposed legal and policy reforms. The MAVDT will have representation in the SC and the TPC.
MADR	The MADR will play a key role in promoting legal reforms among stakeholders for the cattle and forestry sectors. The MADR manages the ICR and CIF for Forest Plantations incentives (with FINAGRO) and will play an important role in incorporating conservation criteria into these incentives. The MADR will have representation in the SC.
CORPORINOQUIA	CORPORINOQUIA will provide guidance to legal and policy reforms in the areas of their jurisdiction, as well as promote and facilitate their implementation and application. CORPORINOQUIA will play an important role in the registration of new PRCS, in the promotion of sustainable production systems at the regional and farm levels, and in providing technical assistance. CORPORINOQUIA will have representation in the SC.
Departmental Governments	The Departmental Government of Casanare is an active partner and co-financer of this GEF project, and will facilitate the implementation of biodiversity conservation and sustainable production models at the local level.
Municipal Governments	Municipal governments will be partners in the implementation of pilot projects. They will be in charge of in charge of issuing and implementing regulations related to conservation incentives, particularly tax exemptions and PES schemes.
Co-financing partners	As active project partners, FAAN, Acción Verde, and Fundación Pantera Colombia will play a key role in providing recommendations for project implementation and will be involved in project M&E. Co-financing partners will be invited to the IW and will be permanently informed by the project team about implementation progress.

Stakeholders	Form of participation in Project Implementation (roles and responsibilities)
NGOs	Several NGOs work in the Llanos and have extensive experience in the conservation of biodiversity and sustainable development (FHV, Fundación Mata de Monte, Fundación Amanecer, CIPAV, Fundación Biológica Puerto Rastrojo, Vivero Arte Ecológico. and Fundación Centro Las Gaviotas). These NGOs will play an important role in the development of PL-level conservation and sustainable production activities.
FEDEGAN	FEDEGAN will play an important role promoting conservation and sustainable production practices among cattle ranchers. In addition, the Livestock Committee of Ariporo is a local partner co-financing the pilot program to be implemented in this municipality.
FEDEMADERAS	FEDEMADERAS will promote conservation and sustainable production practices among forest plantation owners in the Llanos.
UNDP Colombia	UNDP-Colombia will offer guidance, technical support, management tools, and theoretical and practical knowledge to national- and regional-level institutions in the implementation 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. **Project planning** will include annual meetings with key government and non-government stakeholders during which annual goals will be set for each component of the project. These annual planning meetings will also serve to specify the activities that are to be funded through each co-financing source. **Project implementation** will take place according to the annual plans that are approved by the SC, which is expected to be formed by government (e.g., MAVDT, CORPORINOQUIA) and non-government representatives (e.g., WWF, RESNATUR) to ensure active involvement/participation and full representation. In addition, PL owners will be direct beneficiaries of the project's activities, such as training, technical assistance, and improved incomes. **Project evaluation** will occur annually with the participation of key project stakeholders at the end of each planning year and previous to defining the annual plan for the following year of project implementation. Also, mid-term and final-term project 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 PL owners, can express their views, concerns, and assess whether the project's outcomes are being achieved and expectations met and if necessary, define the course of correction.

8.5. Tracking Tool

I. Project General Information

1. Project Name: Institutional and policy strengthening to increase biodiversity conservation on production lands (PL) in Colombia
2. Project Type (MSP or FSP): MSP
3. Project ID (GEF):
4. Project ID (IA):
5. Implementing Agency: UNDP
6. Country(ies): Colombia

Name of reviewers completing tracking tool and completion dates:

	Name	Title	Agency
Work Program Inclusion (November, 2010)	– Olga Lucía Caro Jácome	– Project Coordinator	– The Nature Conservancy

Project Mid-term			
Final Evaluation/project completion			

7. Project duration: ***Planned***__3_ years ***Actual*** _____ years
8. Lead Project Executing Agency: The Nature Conservancy (TNC)
9. GEF Strategic Program:
   x Strengthening the policy and regulatory framework for mainstreaming biodiversity (SP 4)
   x Fostering markets for biodiversity goods and services (SP 5)

10. Production sectors and/or ecosystem services directly targeted by project:

10. a. Please identify the main production sectors involved in the project. Please put "**P**" for sectors that are primarily and directly targeted by the project, and "**S**" for those that are secondary or incidentally affected by the project.

Forestry: P

Cattle Ranching: P

Agriculture: S

II. Project Landscape/Seascape Coverage

11. a. Extent (in hectares) of the landscape or seascape where the project will directly or indirectly contribute to biodiversity conservation or sustainable use of its components.

Targets and Timeframe **Project Coverage**	**Foreseen at project start (ha)**	**Achievement at Mid-term Evaluation of Project**	**Achievement at Final Evaluation of Project**
Forests, flooded savannas, and wetlands of the Ariporo river, Picapico and La Hermosa Creeks (Casanare)	1,102,629		
Savannas and forests Bita river, Liqui river and Negro Creek (Vichada)	786,799		
Orocué forests and savannas (Casanare)	467,909		
TOTAL	**2,357,337**		

Explanation for indirect coverage numbers*:* The coverage numbers presented above are for each of the three project focus areas. Up to 14 farms covering 40,000 ha will be selected within these areas and the project components will have the potential to contribute directly or indirectly to biodiversity conservation and sustainable use throughout the areas (2,357,337 ha).

11. b. Are there Protected Areas within the landscape/seascape covered by the project? If so, names these PAs, their IUCN or national PA category, and their extent in hectares.

	Name of Protected Areas	IUCN and/or national category of PA	Extent in hectares of PA
1	PNN El Tuparro	National Park	554,841.5
2	Cerro Vanguardia	National Forest Reserve	199.54
3	Caño Vanguardia	National Forest Reserve	533.68
4	Quebrada Honda y Caños Parrado y Buque	National Forest Reserve	1,412
5	Río Satocá	National Forest Reserve	4,152
6	San Miguel de Farallones	Regional and Municipal Reserves	Unknown
7	Cuenca hidrográfica del río Unete	Regional and Municipal Reserves	Unknown
8	Microcuencas La Cascada, San Juan y Monquira	Regional and Municipal Reserves	Unknown
9	Santiago de las Atalayas	Regional and Municipal Reserves	Unknown
10	Laguna de Tinije	Regional and Municipal Reserves	Unknown
11	Zona de reserva ecológica y protectora Parque Natural	Regional and Municipal Reserves	Unknown
12	Los Matapalos, Los Chilacos, áreas aledañas a los caños Piragua, Grande y Yarico y predios colindantes de los ríos Meta, Cabuyarito y Upía	Regional and Municipal Reserves	Unknown
13	17 predios veredas Mongue, Calera, Cerezos, Marilandia	Regional and Municipal Reserves	Unknown
14	Ríos Blanco y Negro	Regional and Municipal Reserves	11,925
15	Reserva Natural Protectora Caño La Cristalina	Regional and Municipal Reserves	Unknown
16	Patrimonio turístico y cultural Humadea	Regional and Municipal Reserves	Unknown
17	Reserva Natural Protectora Cuenca Quebrada Las Guamas	Regional and Municipal Reserves	2,629
18	Cuenca alta río Cravo Sur	Regional and Municipal Reserves	5,000
19	Reserva Natural y Patrimonio Ecológico Laguna y Caño	Regional and Municipal Reserves	Unknown
20	Tinje	Regional and Municipal Reserves	
21	Reserva Forestal Islas Antiguas y Riberas del río Cuisiana	Regional and Municipal Reserves	Unknown
22	Reserva Forestal Natural Salto de Candelas	Regional and Municipal Reserves	Unknown
23	Reserva Natural Protectora Quebrada El Vainillal	Regional and Municipal Reserves	Unknown
24	Páramo El Atravesado	Regional and Municipal Reserves	3,044

25	Reserva Forestal Quebrada Blanca y Grande	Regional and Municipal Reserves	Unknown
26	Reserva Forestal y quebradas Las Cajitas, la Lajas, Estaqueta honda y Negra	Regional and Municipal Reserves	Unknown
27	Río Satoca	Regional and Municipal Reserves	4,200
28	Reserva Natural Protectora nacimientos de los río Bojaba, Chiquito, Calañitas, Banadías, San Joaquín, Miguel, Satoca y quebrada La Para	Regional and Municipal Reserves	Unknown
29	Caño Vanguardia	Regional and Municipal Reserves	520
30	Parque Ecológico Recreacional y de la Ciencia	Regional and Municipal Reserves	Unknown
31	Reserva Forestal El Charco	Regional and Municipal Reserves	Unknown
32	Área ecológica de manejo especial cuenca quebradas Honda, cuenca alta y media del río Guatiquía	Regional and Municipal Reserves	Unknown
33	Reserva Buenavista	Regional and Municipal Reserves	Unknown
34	Parque del Coroncoro	Regional and Municipal Reserves	Unknown
35	Reserva de Vanguardia	Regional and Municipal Reserves	Unknown
36	Reserva forestal Cuenca Alta del Caño Vanguardia y quebrada Vanguardiuna	Regional and Municipal Reserves	Unknown
37	Parque Zoológico y Jardín Botánico	Regional and Municipal Reserves	Unknown
38	Zona de utilidad pública y áreas de reserva forestal protectora, nacimientos de los caños Grande, Pendejo, San Luis	Regional and Municipal Reserves	Unknown
39	Zona de reserva forestal caños Buque, Maizazo, Parrado, Grande	Regional and Municipal Reserves	Unknown
40	Reserva Las Nieves	Regional and Municipal Reserves	Unknown
41	Reserva Corrales	Regional and Municipal Reserves	Unknown
42	Garcero Vereda Las Mercedes	Regional and Municipal Reserves	Unknown
43	Garcero Vereda La Unión	Regional and Municipal Reserves	Unknown
44	Reserva Forestal La Tablona	Regional and Municipal Reserves	1,420
45	Parque Municipal La Iguana	Regional and Municipal Reserves	Unknown
46	Owebi	Private Reserve of the Civil Society	5,000

47	Serranias de Casablanca	Private Reserve of the Civil Society	350
48	Bojonawi	Private Reserve of the Civil Society	3,881
49	Rancho Santa Barbara 1 y 2	Private Reserve of the Civil Society	3,365.7
50	Mata Redonda	Private Reserve of the Civil Society	1,552.5
51	Floresta	Private Reserve of the Civil Society	19.5
52	La Ventana	Private Reserve of the Civil Society	1293.7
53	Villa Miriam	Private Reserve of the Civil Society	1,773.77
54	Nimajay	Private Reserve of the Civil Society	2,012
55	El Jardin del Comino	Private Reserve of the Civil Society	30
56	Altamira	Private Reserve of the Civil Society	35
57	El Socay	Private Reserve of the Civil Society	13.00
58	Pitalito	Private Reserve of the Civil Society	3,202
59	Wakuinali	Private Reserve of the Civil Society	2,384
60	La Esperanza 1 y 2	Private Reserve of the Civil Society	1,600
61	La Gloria	Private Reserve of the Civil Society	2,563
62	Manaco6	Private Reserve of the Civil Society	90

11. c. Within the landscape/seascape covered by the project, is the project implementing payment for environmental service schemes? If so, please complete the table below. An example is provided.

Targets and Timeframe	**Foreseen at Project Start**		**Achievement at Mid-term Evaluation of Project**		**Achievement at Final Evaluation of Project**	
Coverage Environmental Service	**Extent in hectares**	**Payments generated (US$)**	**Extent in hectares**	**Payments generated (US$)**	**Extent in hectares**	**Payments generated (US$)**
Natural grassland	7,500	$15 per	7,500 hectares	$15 per	7,500 hectares	$15 per

and savannas (avoided habitat loss or degradation)	hectares	hectare per year (during 2 years of the life of the project)		hectare per year (during year 2)		hectare per year (during years 2 and 3 of the life of the project)

III. Management Practices Applied

12.a. Within the scope and objectives of the project, please identify in the table below the management practices employed by project beneficiaries that integrate biodiversity considerations and the area of coverage of these management practices. Please also note if a certification system is being applied and identify the certification system being used.

Specific management practices that integrate BD	**Name of certification system being used**	**Area of coverage (ha) foreseen at start of project**	**Achievement at Mid-term Evaluation of Project**	**Achievement at Final Evaluation of Project**
Up to 14 farms (forest plantations and cattle ranching) implement biodiversity-friendly production (farm planning tools and landscape connectivity models; biodiversity-oriented business plans; farm-level and landscape-level biodiversity monitoring system; application of incentives and PES schemes).	NA	40,000 ha	14,000 ha	40,000 ha
Biodiversity on PL is protected through conservation agreements administrated by the Land Trust.		10,000 ha	2,000 ha	10,000 ha
10,000 ha are new PRCS and management plans are developed		10.000 ha	3.000 ha	10.000 ha

IV. Market Transformation

13. For those projects that have identified market transformation as a project objective, please describe the project's ability to integrate biodiversity considerations into the mainstream economy by measuring the market changes to which the project contributed. The sectors and subsectors and measures of impact in the table below are illustrative examples, only. Please complete per the objectives and specifics of the project. NA?

Name of the market that the project seeks to affect (sector and sub-sector)	**Unit of measure of market impact**	**Market condition at the start of the project**	**Market condition at midterm evaluation of project**	**Market condition at final evaluation of the project**
Sustainable Cattle Ranching	Increase producers' income by up to 10% in PL of Casanare and Vichada	*0%*	*3%*	*10%*

V. Policy and Regulatory frameworks

For those projects that have identified addressing policy, legislation, regulations, and their implementation as project objectives, please complete the following series of questions: 14a, 14b, 14c.

14. a. Please complete this table at **CEO endorsement for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector **Statement: Please answer YES or NO for each sector that is a focus of the project.**	**Cattle Ranching**	**Forestry**
Biodiversity considerations are mentioned in sector policy	YES	NO
Biodiversity considerations are mentioned in sector policy through specific legislation	NO	NO
Regulations are in place to implement the legislation	NO	NO
The regulations are under implementation	NO	NO
The implementation of regulations is enforced	NO	NO
Enforcement of regulations is monitored	NO	NO

14. b . Please complete this table at **the project mid-term for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	**Cattle Ranching**	**Forestry**
Biodiversity considerations are mentioned in sector policy		
Biodiversity considerations are mentioned in sector policy		

through specific legislation		
Regulations are in place to implement the legislation		
The regulations are under implementation		
The implementation of regulations is enforced		
Enforcement of regulations is monitored		

14. c. Please complete this table at **project closure for each sector** that is a primary or a secondary focus of the project. Please answer YES or NO to each statement under the sectors that are a focus of the project.

Sector Statement: Please answer YES or NO for each sector that is a focus of the project.	**Cattle Ranching**	**Forestry**
Biodiversity considerations are mentioned in sector policy		
Biodiversity considerations are mentioned in sector policy through specific legislation		
Regulations are in place to implement the legislation		
The regulations are under implementation		
The implementation of regulations is enforced		
Enforcement of regulations is monitored		

All projects please complete this question at the project mid-term evaluation and at the final evaluation, if relevant:

14. d. Within the scope and objectives of the project, has the private sector undertaken voluntary measures to incorporate biodiversity considerations in production? If yes, please provide brief explanation and specifically mention the sectors involved.

An *example* of this could be a mining company minimizing the impacts on biodiversity by using low-impact exploration techniques and by developing plans for restoration of biodiversity after exploration as part of the site management plan.

_____
_____
_____
_____
_____

VI. Other Impact

No other project impacts are anticipated at this point.

8.6. Additional information

Cattle farming and forestry production systems in the project's focus areas

Productive System 1. Breeding cattle and beef cattle production system with traditional extensive farming for medium- and large-scale producers in Focus Area 2: Paz de Ariporo, Hato Corozal, and Orocué.

The objective of this productive system is the production of calves weighing 160 kg at 17 months old for their sale and keeping males (420 kg in 3 ½ years) for scheduled fattening. This system is present on 30% of cattle farms, and it is found in the seasonal flooded savannas of Paz de Ariporo, Hato Corozal, and Orocué (Casanare). The most important characteristics are: breeding and fattening cycle; feeding based on extensive grazing with natural and non-native grasses, mineral salts supplements, molasses and some agro-industrial by-products; pastures are maintained with mechanical methods (tractor); weed control with escalated fires and herbicides; localized fertilization; planting of grass with seeds; application of the vaccination schedule; good infrastructure for the management of cattle with wire and electric fences, scales, walkways and corrals, with concrete water tanks.

In regard to production, this productive system has a carrying capacity of 0.6 head of cattle per hectare, with a net income of $31,000/ha.

It is expected that after the implementation of the project this productive system will acquire sustainable production practices, that will allow an increase of production to 0.9 head of cattle per hectare (net income of Col $38.000/ha).

Productive System 2. Breeding cattle with traditional extensive grazing for medium- and large-scale producers in Focus Area 2: Paz de Ariporo, Hato Corozal, and Orocué.

The objective of this productive system is the production of calves weighing 165 kg. This system is found in 30% of cattle farms located in the seasonal flooded savannas of Paz de Ariporo, Hato Corozal, and Orocué (Casanare). The most important characteristics are: breeding and fattening cycle; feeding based on extensive grazing with natural and non-native grasses, mineral salts supplements, molasses and some agro-industrial by-products; pastures are maintained with mechanical methods (tractor), electric pump, electric generator, grass cutter to facilitate grass management, localized fertilization; planting of grass with seeds; application of the vaccination schedule; good infrastructure for the management of cattle with wire and electric fences, scales, walkways, and corrals.

In regard to production this system has a carrying capacity of 1 head of cattle per hectare, with a net income of Col $44.200/ha.

It is expected that after the implementation of the project this productive system will acquire sustainable production practices, allowing an increase in production to 1.1 head of cattle per hectare (net income of Col $52.400/ha).

Productive System 3. Establishment and management of multiple use forest plantations associated with traditional extensive breeding cattle farming for Focus Areas 2 and 3.

The objective of this productive system is the agronomic sustainable production of introduced forest plantations associated with breeding cattle farming. This system is found in 50% of forestry systems, and is located in the seasonal flooded savannas of Paz de Ariporo, Hato Corozal, and Orocué (Casanare), and in the savannas of Vichada. The main characteristics are: agronomical management for plague control and diseases with herbicides, use of fertilizers, planting of seedlings, preparation of the land with escalated fires, grating and clearing (3 times a year), and pruning after the second year.

Productive System 4. Integrated system of breeding cattle for small, medium- and large-scale producers in Focus Area 3.

The objective of this productive system is the establishment and restoration of grasslands, technical management of native savannas, and introduction of foraging crops to improve nutrition and feeding of cattle during the dry season. This system is in 35% of cattle farms and is located in Puerto Carreño and Río Bita in the department of Vichada. The main characteristics are: conservation and use of biodiversity in the seasonal flooded savannas through the implementation of technical alternatives that improve the production of the introduced forest plantations, restoration and management of native species such as the saladilllo, congrio, zazafrás, and foraging conservation practices.

Productive System 5. Agroforestry system associated with cashews for medium- and large-scale producers in Focus Area 3.

The objective of this productive system is to restore the potential use of species and to provide small-scale production alternatives through agroforestry systems. This system is employed in 45% of agroforestry farms located in the savannas of Puerto Carreño, Vichada. The main characteristics are: clean surface, plant, replant, low inputs, and the production of 1 ton of nuts per ha.