PROJECT IDENTIFICATION FORM (PIF) [1]

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Sustainable Management and Conservation of Biodiversity in the Magdalena River Basin		
Country(ies):	Colombia	GEF Project ID:[2]	4849
GEF Agency(ies):	IADB (select) (select)	GEF Agency Project ID:	CO-G1003
Other Executing Partner(s):	The Nature Conservancy - Colombia (TNC); Ministry of the Environment and Sustainable Development (MADS); Institute of Hydrology, Meteorology and Environmental Studies (IDEAM); Alexander von Humboldt Research Institute of Biological Resources (IAvH); Corporación Autónoma Regional del Río Grande de la Magdalena (CORMAGDALENA); and Autoridad Nacional de Acuicultura y Pesca (AUNAP)	Submission Date:	2013-01-25
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	60
Name of parent program (if applicable): ➢ For SFM/REDD+ ☐		Agency Fee ($):	604,545

A. FOCAL AREA STRATEGY FRAMEWORK[3]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
(select) BD-1	Outcome 1.1: Improved management effectiveness of existing and new protected areas.	Output 1.New protected areas (15) and coverage (50.000 ha) of unprotected ecosystems	GEFTF	1,000,000	1,750,000
(select) BD-2	Outcome 2.1: Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation.	Output 3. Certified prodution landscapes and seascapes (50.000ha)	GEFTF	3,698,636	14,950,000
(select) BD-2	Outcome 2.2: Measures to conserve and sustainable use biodiversity incorporated in policy and regulatory frameworks.	Output 1 Policies and regulatory frameworks (at least 2) for production sectors. Output 2 National and sub-national land-use plans (10) that incorporate biodiversity and ecosystem services	GEFTF	1,350,000	7,000,000
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

(select) (select)			(select)		
(select) (select)	Others		(select)		
Sub-Total				6,048,636	23,700,000
Project Management Cost[4]			(select)	**315,000**	1,300,000
Total Project Cost				6,363,636	25,000,000

B. PROJECT FRAMEWORK

Project Objective: Contribute to the conservation and sustainable use of biodiversity in the Magdalena river watershed through the protection of priority habitats, improved ecosystem health, governance and strengthening of local capacity.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Cofinancing ($)
I. Conservation of priority areas in the Magdalena River Basin	Inv	1)At least 15 new terrestrial and freshwater biodiversity-critical conservation areas, at national, regional and/or local levels, declared and with improved management.	1.1) At least 15 management plans developed for biodiversity critical conservation areas (50,000 ha) based on participatory processes and technical studies 1.2) Basic infrastructure (for example, administrative building, visitor installations and bathrooms) completed for protected areas.	GEFTF	1,000,000	1,750,000
II. Ecosystem health management	Inv	1) Biodiversity mainstreamed into implemented local land use and watershed plans 2) Biodiversity habitats (freshwater and associated ecosystems) and populations enhanced as a result of maintaining and improving freshwater ecosystems health	1.1) At least ten watershed management plans (POMCAs, for their Spanish acronym) in priority areas for conservation modified to incorporate biodiversity planning guidelines 2.1) At least 2,000 land users implementing sustainable land use practices in at least 50,000 certified hectares 2.2) At least 5,000 ha of critical riparian and watershed habitats restored (co-financing) 2.3) At least 1 strategic river lagoon (cienaga) within selected priority floodplains with fishing management plan developed as a strategy to recover and conserve fish populations.	GEFTF	4,548,636	21,550,000

[4] GEF will finance management cost that is solely linked to GEF financing of the project.

		3) Biodiversity mainstreamed in decision making processes (i.e. water concessions, licensing) for the Magdalena river basin	2.4) Delimitation of priority wetland areas. 3.1) A basin-wide hydrological model developed to determine appropriate freshwater system flows to conserve biodiversity, based on WEAP (Water Evaluation and Planning system), ELOHA (Ecologic Limits of Hydrologic Alteration)or other hydrologic models, 3.2) Hydrological model applied to incorporate biodiversity considerations of land use planning and water use decision making in at least 4 pilot applications 3.3) At least 100 staff members from National Licensing Agency, MADS, CORMAGDALENA and Regional environmental agencies - CARs trained in new methodologies for watershed planning and water granting concessions (including model application). 3.4) New and refurbished hydro-meteorological monitoring stations placed along Magdalena river			
III. Monitoring and evaluation	TA	1. National and regional institutions use monitoring results to inform decision making on investments, land use planning and conservation policies	1.1 Long-term monitoring system designed and implemented to measure effectiveness of freshwater ecosystem health investments on biodiversity benefits and risk mitigation. 1.2 Project products and results monitoring system	GEFTF	500,000	400,000
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
			Sub-Total		6,048,636	23,700,000

Project Management Cost[5]	GEFTF	315,000	1,300,000
Total Project Costs		6,363,636	25,000,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
National Government	Adaptation Fund - Ministry of Environment and Sustainable Development (MADS)	Grant	10,000,000
National Government	MADS	In-kind	500,000
National Government	Ministry of Agriculture - AUNAP	Grant	2,000,000
National Government	Adaptation fund – IDEAM	Grant	3,000,000
National Government	IDEAM	In-kind	500,000
National Government	Humboldt Institute	In-kind	300,000
CSO	The Nature Conservancy (TNC)	Grant	2,000,000
Local Government	Cormagdalena	Grant	4,000,000
Local Government	Departments and municipalities in the Magdalena River Basin	Unknown at this stage	1,500,000
Local Government	Regional environmental agencies (CARs)	In-kind	1,200,000
Total Cofinancing			25,000,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				0	0	0

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

[5] Same as footnote #3.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the GEF focal area/LDCF/SCCF strategies:

The proposed project fits within the Biodiversity Focal Area Objectives 1 and 2. In relation to BD-1, the project contributes to the outcome 1.1 "Improved management effectiveness of existing and new protected areas" through the establishment and management of new biodiversity-critical conservation areas which will ensure the long term protection of critical terrestrial and freshwater biodiversity.

In relation to BD-2, the project contributes to outcome 2.2 "Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks" specifically by generating, making accessible, and providing training on the use of new methodologies and models to ensure better management of freshwater ecosystems and to reduce threats to biodiversity within them, as well as mainstreaming biodiversity in local land use and watershed plans. Additionally, the project contributes to BD-2 by addressing outcome 2.1 "Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation" by providing incentives for implementing sustainable production practices in terrestrial and aquatic ecosystems.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

At the international level, the proposal is consistent with Colombia's ratification of the UN Convention on Biological Diversity on Nov. 28, 1994, and adherence to the UN Convention to Combat Desertification signed on June 8, 1999, as well as its endorsement of the Millennium Development Goals (MDGs). In particular, policy documents CONPES 91/2005 "Goals and strategies of Colombia to achieve the MDGs- 2015" and CONPES 140/2011, include specific conservation indicators that are directly relevant to this project, such as the proportion of areas destined for ecosystem conservation in the National System of Protected Areas (SINAP) and number of protected areas with a management plan, in order to achieve MDG 7 "Ensure environmental sustainability".

The project is well aligned with Colombia's national priorities, policies and plans. The main policies include: (1) the National Biodiversity Policy led by the Ministry of the Environment and Sustainable Development (MADS). Though this policy is currently being adjusted, current relevant strategies include: i) Consolidation of the National System of Protected Areas - SINAP, ii) Reducing biodiversity damaging processes, iii) Restoration of ecosystems and threatened species, and iv) Characterization of biodiversity elements and promotion of sustainable management systems. (2) The national policy for protected areas (CONPES 3680 de 2010), which dictates policy strategies necessary for the consolidation of the National System of Protected Areas as a comprehensive, effectively managed and ecologically representative system. For example: creation of new protected areas to conserve fragile ecosystems not represented or under-represented in the SINAP and to continue with the identification of priority sites for conservation. (3) The National Water Resources Policy with five key objectives: supply, demand, quality, risks and institutional capacity and governance. In particular, strategies for planning, management and conservation of water resources are directly relevant to this project. Finally, (4) the National Wetland Areas Policy which defines methods to combine biodiversity conservation with sustainable management activities in critical wetland areas. This policy is also contributing to the formulation of the new strategic

Action Plan for the Magdalena river basin being developed by the MADS. The main objective of this new action plan is to define guidelines for the sustainable management of the basin. As this project focuses on sustainable management guidelines, its development is directly relevant to the implementation of the proposed project.

The project is also consistent with the National Development Plan – PND 2010-2014, which adopts biodiversity as part of the country's sustainable development strategies, together with the promotion of competitive and sustainable productive processes to improve environmental performance (see Chapter 6). In consequence, a number of priority actions for biodiversity protection and risk mitigation and management for the Magdalena basin are included mainly under strategies "Biodiversity and ecosystem services" and "Integrated water resource management". The PND proposes implementation of pilot project incorporating sustainability in priority areas, including the Macizo Colombiano and La Mojana, both in the Magdalena Basin. Finally, one of the other main goals of the PND is the demarcation of the agricultural frontier in the wetlands systems of the Magdalena basin.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Background: According to the Política Nacional de Biodiversidad 2009-2019, Colombia is considered one of the 12 megadiverse countries of the world. Covering 0.7% of the planet's surface, Colombia accounts for around 10% of the flora and fauna of the world. The Magdalena river basin which covers 274,000 km2, almost a fourth of the Colombian territory, includes most of the main ecosystems of the Andean region and the Colombian Atlantic coast, making it one of the most important biodiversity regions on the planet. More than 250 mammal species, 800 bird species, 400 amphibians and 213 fish species, among others, make their home in the Magdalena. Among fish species, 51 species are endemic to the basin, 13 species are reported as vulnerable, 2 species are in critical condition, 8 are endangered, and 15 are near threatened. A total of 113 water bird species inhabit the basin, of which two are endangered and two are near threatened. It is home to the Zapatosa, the biggest freshwater marsh in Colombia and is part of two biodiversity hotspots: the Tumbes-Choco-Magdalena and the Tropical Andes – the richest and most diverse region on earth. The Magdalena is among the river basins and sub-basins with the highest number of native species per unit area (IUCN 2001). While the basin is a significant provider of global environmental benefits, including 4 RAMSAR sites (Sistema Delta Estuarino del Río Magdalena – Ciénaga Grande de Santa Marta, Laguna de La Cocha, Complejo de Humedales Laguna del Otún and Sistema lacustre de Chingaza), it is also critical for the livelihood of its inhabitants and more broadly for Colombia. The mountainous areas, moors and lakes are the source of drinking water consumed by 30 million Colombians. The basin produces 86% of the gross domestic product (GDP), generates 75% of the country's agricultural production and more than 90% of the country's coffee, and produces 70% of the country's hydraulic energy and 90% of its thermo-electric power.

Given the extent of the basin and the many pressures it faces, the threats to biodiversity in the Magdalena occur at multiple scales and are also geographically dispersed. Efforts to protect and conserve biodiversity in the basin have been important, including incorporating nearly 3 million hectares of its area into the national park system (SINAP). However, of the 21 protected areas in the Magdalena Basin, only three of these are aquatic despite the global importance of biodiversity in freshwater and surrounding ecosystems. Recognizing the underrepresentation of aquatic ecosystems in the SINAP, the government (CORMAGDALENA and MADS), with technical assistance from TNC, has prioritized conservation of freshwater ecological systems. Taking into consideration a series of environmental and socioeconomic variables, 86 (out of 232 priority ecosystems) are ranked as high priority. Of these, 27 are classified as short term priorities, are distributed along the basin, and cover approximately 26,000

square kilometers (less than 10% of the Basin's area).

Biodiversity is further compromised by escalating pressures on land and resource use. Escalating population throughout the watershed has increased demand for urban and rural land and consumer goods, including agricultural and forest-based products. The area of forest cover in the upper basin was estimated to have declined by 400,000 ha during 1970-1990, representing 23% of the upper Magdalena catchment (Restrepo 2008). As much as 80% of the entire population of Colombia lives in the Magdalena watershed, which includes its four main cities (Bogotá, Medellin, Cali, and Barranquilla). The population of these four cities has increased 45% between 1985 and 2005 (DANE, 2005). Population growth has been accompanied by similar industrial growth. This in turn has increased the demand and conflict over the use of its waters. Drinking water supply systems in rural areas are routinely used for productive enterprises, such as vegetable gardening, livestock watering or recreational and tourism development. Irrigation for farming uses up to 70% of water for human use. Moreover, the Magdalena River is the major collector of municipal and industrial waste waters in Colombia.

Project Geographic Focus. Based on the prioritization of the 27 short term freshwater ecological systems developed by CORMAGDALENA and MADS, four geographic areas have been initially pre-selected for project intervention based on:

(i)Indicators of ecological conditions. These included data and expert knowledge on presence of wetlands or swamps, remnants of natural vegetation cover (both, if over 50% of the local catchment area), uniqueness of freshwater ecosystems, occurrence of strategic ecosystems, landscape integrity, presence of endemic and/or threatened fish and water bird species, the existence of habitats necessary to complete life cycle of species, area under legal protection, and area flooded during the 2010-2011 "La Niña" event.

(ii)The degree of human pressure or threat on urgent areas. Pressure was determined using land cover under high and low intensity agriculture in the whole system and in the active river area (less than 20%), density of roads (less than 7.5%), extension of urban area (less than 10%), population density (less than 50 habitants per square kilometer) and presence of actual and projected hydropower dams.

The four selected areas include nine short term conservation priority areas and cover over 14,600 km2 (approximately 5,3% of the Magdalena Watershed):

(i) the upper Cauca River Valley (the area between Cali and La Virginia, and the headwaters of La Vieja River),

(ii) the Momposina Depression (the lower valley of Cauca River swamps-lagoons including the Nechi wetlands, the San Jorge River and the Pimiento, Ancon and Limones swamps-lagoons),

(iii) the lower Cesar River (Arroyo Hondo and Zapatosa swamp), and

(iv) the Canal del Dique (including its swamp-lagoons system).

Selected areas	Departments	Total watershed area (km^2)	Wetlands (km^2)	Flooded areas	
				Periodic (km^2)	Additional during La Niña 2011 (km^2)
Upper Cauca River Valley	Antioquia, Quindio	3,815	39	7	81
Momposina depression	Antioquia, Bolivar	7,600	1,020	1,568	1,425
Lower Cesar River	Bolivar, Cesar	2,054	398	382	168
Canal del Dique	Atlántico	1,169	153	171	129
TOTAL		14,638	1,611	2,128	1,804

Within these selected areas important biodiversity elements are present, such as 28 endemic fish species (out of the 51 identified for the Magdalena Basin), 15 threatened fish species (out of the 38 reported for Basin) and 50 aquatic birds (out of 113 registered for the whole basin), two of them threatened (out of four).

Threats to the biodiversity of the targeted geographic areas:

Alteration of hydrology. Water flow patterns and available water quantity are of extreme importance to the survival of freshwater biodiversity. In addition, river flows are very important for various productive sectors. With a total of 36 dams, the flow of the Magdalena is used to harness 70% of the country's hydraulic energy (30 additional dams are in different stages of planning). The four project areas are impacted by 12 dams and 6 more are being planned for two of these areas. Furthermore, these areas are affected by several reservoirs along the basin. Currently, environmental licenses and water concessions for the management of river flows are issued based on hydrological criteria with no analysis of flow patterns required for freshwater species to survive (much of freshwater's biodiversity requires particular flow patterns to maintain life functions). There is an urgent need to introduce biodiversity considerations into decision making processes related to the use of water resources in the Basin. Inadequate management of flow patterns can lead to serious impacts on biodiversity, including (IUCN 2001): blocking of movement of migratory species causing extirpation or extinction of genetically distinct species or stocks, changing turbidity and sediment levels, trapping nutrients depriving downstream ecosystems of them, changing flow patterns from moving to still which changes oxygen content of waterways, possibly fostering exotic species, changing the normal seasonal hydrologic patterns which impacts available nutrients, filtering out woody debris which provides habitats and sustains a food chain, among others. Other infrastructure such as dykes and levees, and channel obstructions (mostly from ranching) inhibit the free flowing river and result in loss of floodplain connectivity. In addition to flow pattern changes caused by dams and dykes, watershed degradation poses further threats to water regulation. Flood mitigation services are greatly compromised by deforestation and land uses such as unsustainable agriculture and ranching.

Rural productive sector pressure. Data on degradation of lands and changes in land use is often lacking or outdated but existing data at the Basin level show worrying trends. Recent data suggests continued increases in deforestation rates: Terra-i, a tool developed by CIAT (International Center for Tropical Agriculture) and TNC (The Nature Conservancy), detected an annual deforestation rate of 152,000 ha/year, but with an increasing rate from 100,000 ha/year between years 2004 and 2007 to 200,000 ha/year in 2008 y 2009 in the Magdalena basin. Demand increases for agricultural and forest products spur this change in land use reducing biodiversity habitats, fragmenting landscapes, and changing natural freshwater flows in wetlands and floodplains. The project's four selected areas have a high intensity agricultural activity that covers from 20 to 48% (Headwater of La Vieja River) of these areas.

Related to these trends are those of the freshwater fisheries in the Basin. Between 1975 and 2008, fish production decreased from 25 million tons per year to 4.4 million tons. Forty-four fish species from the Magdalena River have been included in the Red Book for Conservation (Mojica et al., 2006). In addition, the composition of fish capture has changed dramatically. Sources of threats to fish stocks include 1) the loss of fish nursery habitat (habitat converted to agriculture or ranching); 2) the building of dams and reservoirs leading to fragmentation and altered flow patterns resulting in the loss of migratory routes, feeding habitats and spawning areas for fish; 3) poor water quality from sedimentation; and 4) the absence of adequate resource management policies. As well as an important source of global biodiversity values, Magdalena's fisheries also constitute an important source of food and livelihood to over 45,000 families. For example, the municipalities of Cicuico, Talaigua nuevo and Mopox in the Momposina Depression have a fish production of 1,178,595 tons per year.

Climate Change. The biodiversity in the project areas are also threatened by climate change. Recent research suggests that the increased frequency and magnitude of extreme weather events may be linked to climate change. The Basin's resources and ecosystems and the river flows are aggravated by increased occurrence of La Niña. The rainfall emergency that began during the second semester of 2010 and went well into 2011 attracted the country's attention to the Magdalena river basin, due to the extensive flooding suffered by crops and towns located in the central and lower basins and the destructive impacts of the waters on agriculture, infrastructure and homes (more than 950.000 new hectares of land flooded during the 2010-2011 rainy season compared to previous years). The four selected areas, in particular Canal del Dique, Cesar River, and Momposina Depression, were severely affected by this extreme rainfall event covering from 33 to 98% (Canal del Dique) of their area. In the selected project areas, the departments of Bolívar, Cesar and Atlántico were the most affected with 409,010, 104,077 and 228,914 people respectively, which represents a third of the total population affected during the 2010-2011 event. Other economic and social infrastructure has also been damaged. While probably significant, the impacts on biodiversity have not been evaluated.

Institutional coordination. Strengthening the capacity and coordination of the agencies that have jurisdiction over the Basin, and in the four project areas in particular, is a necessity and could go a long way in mitigating biodiversity threats in the region. The four project areas are located within five departments, with a similar number of regional environmental agencies (CARs) and the CORMAGDALENA (the regional environmental agency) also having some form of institutional oversight and control over resources in their jurisdictions. MADS and IDEAM activities and projects also influence the way the region's biodiversity is used and managed. Currently, MADS leads the formulation of the strategic action plan for the Magdalena basin. IDEAM is in charge of producing, analyzing, processing and disseminating information pertaining to hydrology, hydrogeology, meteorology, and the vegetation and land area to improve the use and care of the biophysical resources of the country. Finally, CORMAGDALENA leads the Management Plan for the Magdalena, which is currently being updated, and is also in charge of developing a Magdalena Action Plan. In addition, Law 99 of 1993 made the following environmental authorities responsible for the granting of Environmental Licenses: MADS, the Regional Autonomous Corporations, the Sustainable Development Corporations and the Municipalities. The effectiveness of this institutional multiplicity is limited by overlapping mandates, weak institutional structures and insufficient information for decision making.

Baseline projects:

As a result of the rainfall emergencies experienced during the 2010-2011 rainy season, the National Government created the Adaptation Fund under the auspices of the Ministry of Finance and Public Credit (Executive Decree No. 4819 of the President). The goal of the Fund is to help mitigate against and manage risks of future natural disasters. The Fund has 3 primary mandates: 1) Construction and reconstruction of primarily grey (built) infrastructure, 2) reactivation of the economy/investment in rural productivity, and 3) climate change mitigation. Investments are being prioritized based on several criteria, notably to support those municipalities that are most affected, most vulnerable, and with the lowest institutional capacities. The Adaptation Fund focuses primarily on investment in grey infrastructure (dykes, canals, channels, etc) as a means of mitigating future disaster risks, though will also direct resources towards development of planning tools and updating land use plans. Resources from the Fund are channeled via existing institutions, such as MADS, CORMAGDALENA and IDEAM.

MADS has been allocated US$100 million from the Adaptation Fund to update over 200 local level Watershed Management and Land Use Plans (POMCAs – for their name in Spanish) in the Magdalena basin and for infrastructure investments prioritized as a result of their review process. The main objective of the revision will be to ensure these plans include risk mitigation measures and identify disaster risk reducing landscape investments in the area. However, while their focus will be to build

resilience to climate change in high risk areas, their action falls short on incorporating biodiversity dimensions into their analysis and implementation. Further support is needed in order to ensure that these land use plans are a useful tool for decision-making related to biodiversity priorities. Additionally, resources from the Adaptation Fund will also be used in the demarcation of wetlands in the selected geographic areas as a step towards improving the management of these areas and reducing land use conflicts. The demarcation of wetlands is the first step towards improved management of these biodiversity-rich areas, which will need to be developed further with on the ground investments according to specific needs (habitat rehabilitation, improved use of resources, etc.). At this stage, a conservative estimate of $10M is considered as co-finance for this project; a detailed amount will be finalized during project preparation.

To specifically address the impacts of large infrastructure projects on hydrological alternations in the watershed and to provide decision making information, for example, in the operation of dams, TNC, in cooperation with MADS, initiated a study through the application of the logical framework "Ecological Limits of Hydrological Alterations – ELOHA." This tool can produce biological flow maps for the entire Basin but also can be downscaled for a particular region to improve dam operation. Currently, the tool has only been run at a very large scale with hydrological and biological data and there is a need to further refine the scale of this and other hydrological tools so as to provide more useful information to local and basin level decision makers, particularly for the four project sites.

Given the increasing concern over the impact of dams and climate change on resources and biodiversity in the Magdalena basin, there are several initiatives aimed at improving the understanding of the basin, from ecosystem characterization to basin wide modeling, that will provide baseline information necessary for the correct use of these tools. For example, as part of IDEAM's development of climate scenarios and flow dynamic models, and in an effort to improve data availability in the basin, it has allocated Adaptation Fund resources (US$28 million) to invest heavily in expanding and refurbishing its system of monitoring stations. On the other hand, CORMAGDALENA will be developing a hydrological model of the Magdalena River and its connectivity with wetland systems. The IDEAM and CORMAGDALENA baseline projects will contribute US$ 3 and US$ 1 million, respectively, towards project cofinancing.

Conserva Colombia, developed by TNC in association with the Fondo para la Accion Ambiental y la Niñez, is a demand-driven program established to encourage the creation of new protected areas at the regional, department and municipal level, to contribute to closing the protected area conservation gap of the SINAP. The program has a goal of establishing 500,000 ha of new protected areas by 2015. It operates by providing incentives subsidizing part of the costs associated with developing the studies and consultations needed for the declaration of protected areas. Even though, since its start in 2009, Conserva Colombia has successfully established 102,940 ha of new protected areas, none of these are part of freshwater and wetlands ecosystems. As part of baseline cofinancing, Conserva Colombia will contribute its management, technical and administrative experience and support.

Until recently the central authority for the management of fisheries was the Ministry of Agriculture and Rural Development and, in particular, the Rural Development Institute - INCODER. With a stronger emphasis on production, the sector's policies have included very little concern for biodiversity conservation and sustainable use in fisheries management. Based on a need to more adequately manage fisheries sustainably, the National Government has recently created the National Authority of Fishery and Aquaculture – AUNAP (Decree No. 4181, November 3 - 2011). AUNAP has as a basin-wide mandate to build capacity within fishing communities on the sustainable use of fishing resources including investigations into alternative livelihoods. AUNAP is currently engaging in two pilot projects, one in Cienaga de Zapatosa (Cesar River priority area) providing training and education in aquaculture,

sustainable fishing, and exploration of alternative livelihoods. These efforts fall short of providing and implementing a broader set of fishery resource regulations and incentives that will ensure the conservation of all freshwater species, not only of the ones with a current production/economic value. Its baseline cofinancing support will be US$1 million.

B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The Government of Colombia is seeking GEF support through IDB to complement ongoing efforts to improve conservation management in priority areas of the Magdalena basin. The proposed incremental activities seek to strategically target key limitations to improving the generation of global environmental benefits, and fall under three main components:

Component 1. Conservation of priority areas. The component seeks to contribute to biodiversity conservation by catalyzing efforts to increase coverage of protected areas in the Magdalena basin and to foster improved management of these areas, by favoring underrepresented freshwater ecosystems and the critical terrestrial ecosystems that surround them. As discussed previously, four freshwater ecosystem areas have been identified for project intervention. More specific sites for targeting conservation efforts will be identified during project preparation. As part of its implementation strategy, the project will establish a partnership with Conserva Colombia to target the creation of decentralized locally and regionally managed conservation areas, with GEF financed incentives favoring the conservation of freshwater ecosystem areas. Refinement of the Conserva Colombia partnership, as well as considering other implementation options, will be undertaken during project preparation.

The project will work with MADS, SINAP, and regional and municipal authorities to: 1) develop criteria for selection of priority freshwater and terrestrial ecosystem protection within targeted areas; 2) select at least 15 priority conservation areas covering at least 50,000 ha; 3) determine most appropriate management jurisdiction (local, regional, or national), as well as relevant institutional stakeholder (government, civil society, CARs, etc); 4) undertake studies (biological and socio-economic characterization, business/financing plans, land tenure analysis, etc.) and local participatory processes to develop management plans for proposed protected areas; and 5) support implementation of management plans (for example: delimitation and zoning, patrolling and mitigation of anthropogenic and natural pressure, infrastructure development and maintenance, personnel training, visitor management, and interpretation and education) in officially declared protected areas.

Component 2. Ecosystem health management. The component's objective is to contribute to the maintenance and improvement of ecosystem health by mainstreaming biodiversity conservation and sustainable use into: 1) decision support tools to strengthen local, regional and national capacities to manage and protect biodiversity; 2) local planning instruments and mechanisms; and 3) productive and disaster risk reducing investments in freshwater/terrestrial landscapes.

At the basin wide level, the component's efforts will focus on working with IDEAM and CORMAGDALENA on incorporating biodiversity variables into their modeling efforts, as well as expanding their scope, to provide guidance for decision making processes, such as approval

of water use licenses. In the identified priority areas, incremental GEF investments on land use/watershed planning tools will complement MADS review of POMCAs by mainstreaming biodiversity into its process. Investments, from GEF and co-financing sources, will be directed towards implementing revised POMCAs land use strategies in order to reduce productive sectors' impacts on biodiversity and promoting 'green' infrastructure in the implementation of risk reducing, and biodiversity enhancing, investments by the Adaptation Fund. With AUNAP, GEF funds will promote a more integral approach to fisheries management, by piloting the development and implementation of a sustainable fisheries management plan for the Canal del Dique area.

Within the four project areas, and in particular, targeted project sites to be identified during preparation, the project will finance: (i) development of biodiversity and risk mitigation based criteria to improve land use planning and zoning processes; (ii) updating of at least 10 POMCAs, based on biodiversity and risk mitigation criteria; (iii) creation of financial incentive mechanisms to promote sustainable land management practices favoring healthier biodiversity habitats in productive landscapes (target: 2,000 land users with improved land management practices in 50,000 ha); (iv) restoration of riparian vegetation and creation of ecological corridors (with co-financing funds), reconnecting river segments, and restoring floodplains and wetland ecosystems, among other activities (target: 5,000 ha); and (v) development of a sustainable fisheries management plan for the Canal del Dique, as well as support for its implementation, which may include stock assessments, size limit increases, season closures, specification of gear requirements, actions to solve user conflicts, and a sustainable fisheries awareness program, among others. While these activities will be further developed and refined during project preparation, it is expected that investments in sustainable land management, restoration and sustainable fisheries management will follow from priorities identified in the updated POMCAs.

At a basin wide level, but with applications to local or regional needs, the component includes: (i) development and application of a fine-scale, basin-wide hydrological monitoring system, using tools such as WEAP (Water Evaluation and Planning system) or other hydrological model, and ELOHA (Ecologic Limits of Hydrologic Alteration); (ii) development of guidelines and criteria for the definition of critical water flow patterns to sustain biodiversity in different classes of priority river segments and risk mitigation scenarios; (iii) development and implementation of four pilot projects demonstrating how to incorporate biodiversity in water use decision-making (for example, in licensing, concessions and hydroelectric sector planning); (iv) proposals for reforming regulatory frameworks that take into account environmental flows in the design of projects that incorporate water use (for example, drinking water systems); and, (v) training activities on freshwater biodiversity values/importance within the watershed for staff of local, regional and national institutions that will be implementing these methods in their own decision making structures.

Component 3. Monitoring and evaluation. This component will include the design of a long term monitoring system of project outcomes that will help monitor the attainment of project's goal and associated benefits. It will support decision makers and stakeholders to undertake adaptive management approaches for fine-tuning the implementation of biodiversity investment financed by the project, and provide lessons learned for designing and implementing similar initiatives. Additionally, the monitoring and evaluation system will be used to determine the effectiveness of project investments as compared to other types of investments for protecting biodiversity and providing livelihood benefits.

Geographic focus. By their nature, some of the proposed activities are basin wide (including modeling and regulatory frameworks). The majority of investments, however, are expected to be implemented in the four selected geographic areas in the Magdalena watershed. During project preparation these geographic areas will be verified and specific target implementation sites will be selected in agreement with local stakeholders. A highly participatory process during project preparation will be essential to create synergies between all of the different activities proposed in this project and maximize their impact. CEO endorsement documents will detail these sites, providing corresponding specific biodiversity baseline data, and will include an M&E plan that will allow for the measurement of the project's achievement of expected products and outcomes.

Global environmental benefits. Within the selected priority project areas, investments will contribute to generate global environmental benefits by impacting globally important biodiversity through (i) increasing coverage of protected areas, particularly those with high biodiversity values, and of those ecosystems with relatively lower representation in the national protected area system; (ii) reducing pressure on freshwater biodiversity through improved planning decision making tools which incorporate biodiversity and disaster risk mitigation guidelines; (iii) improving biodiversity habitats through landscape management actions; and (iv) developing a long term monitoring system that can feed information on biodiversity impacts into future decision making processes.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

The diversity of the proposed activities will yield significant benefits in terms of biodiversity conservation and sustainable development, producing positive impacts on fragile habitat protection, wetland area management and on the socio-economic conditions of communities throughout the Magdalena river basin, from marshland fishermen to hillside farmers, from reliability of hydroelectric power generation to commercial agricultural production, among others. Project interventions favor biodiversity considerations, but also incorporate disaster risk criteria, and as such should have positive impacts of threatened river-side communities by decreasing their risk to natural disasters. The socio-economic benefits will be noticeable at the regional level but mostly at the local level, through the participation of communities in floodplain management, conservation and sustainable use activities and improved institutional capacity to manage water resources. Special attention will be given to the participation of women and youth in planning processes and in their empowerment in the implementation of activities. Some of the most important socioeconomic benefits will be obtained through the design and implementation of the fishing management plans, which will benefit traditional fishermen (at least 15,000 fishermen) in their fishing activities while protecting the resource base and reversing trends towards resource depletion and ecosystem degradation. In addition, at least 2,000 land users will see improvements in their production systems as a result of incentive mechanisms supported by the project.

The protected area component provides important opportunities to contribute towards strengthening local communities' capacities (including those of indigenous communities, if applicable) for conflict resolution in their access and management of natural resources. Furthermore, it opens opportunities for designing co-management and participation agreements for the implementation of protected area management plans. In the development of these themes, project preparation activities will take special care to incorporate gender dimension throughout the design of project activities.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

Risk	Rate	Mitigation strategy
Lack of political will, institutional capacity, inter-institutional coordination and competition between entities	Low	Given the importance of the Magdalena river in Colombia there already exists significant institutional support to improve environmental management in the basin. The conformation of a tripartite committee to guide execution of the project and involving relevant stakeholders early on during project design will further mitigate this risk.
The reconstruction and construction of infrastructure, which can affect the main ecological structure of the basin and therefore its future sustainability	Medium	The project will promote the use of biodiversity guidelines and water flow criteria in decision making processes related to infrastructure investments, favoring the use of green infrastructure.
Resistance from local and regional agencies to implement their resources and actions to protect the biodiversity	Medium	Different stakeholders at local and regional level will be incorporated in the design of the project, and will be key in the implementation of most of its activities, from participation in protected area selection and management, development of decision making tools, prioritizing landscape investments, to the design and implementation of long term monitoring systems.
Lack of co-financing to implement actions as match to the GEF project.	Low	Throughout the design of the project, the main partners will be actively engaged in order to properly align their institutional strategies with those of the project.
Recurrent extreme weather events adversely impact viability of project activities	Medium	This risk is of particular concern for land user investments and landscape rehabilitation investments. However, as per Adaptation Fund guidelines, the design of land use management options and landscape investments will explicitly take into consideration the risks associated with extreme weather events.

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

The highly participatory nature of this project entails the involvement of a large number of national, regional, and local government organizations with different roles in the basin, and will therefore require a substantial effort in coordination in order to ensure a successful execution.

The project will be managed through a tripartite committee (TPC) structure that will include: MADS, CORMAGDALENA, and TNC. The TPC will be responsible for overall strategic planning and decision making (for example, approval of annual operational plans). Under the leadership of MADS and CORMAGDALENA, the committee will ensure the coordination of the project's policies, strategies and activities with other participating institutions and stakeholders. TNCs main role in the project will be to support the operational and administrative management of the project through a Project Execution Unit (PEU) with sufficient technical, financial and administrative capacity for planning, implementing and

supervising the project's activities.

In particular:

- MADS is the lead government institution benefiting from the proposed project. MADS will share the main role in providing political and technical guidance during project execution. As part of the TPC, MADS will ensure that project activities and results will make a significant contribution to the sustainability of government interventions in the area. Regarding implementation, it is a crucial actor in the process of creating new protected areas, developing policies and regulations, and updating land use and watershed plans.

- CORMAGDALENA will share the role of providing guidance to the project execution, ensuring that project results are in line with regional priorities and will be embedded in regional and local policies and initiatives. In addition, it will provide in-kind and cash resources for the project directed towards modeling efforts and investments in sustainable landscape management practices, as well as provide policy guidance to its stakeholders on biodiversity guidelines in watershed management.

- TNC will act as the executing agency of the project, being responsible for the operational and administrative management of the project. The government's choice of TNC as executing agency is driven by the need to efficiently coordinate project activities among numerous national, regional and local entities. Additionally, TNC provides a long history of conservation expertise, but also that in modeling and monitoring. Thus, as part of the TPC, TNC will also act as a scientific agency to help guide decision-making in setting priorities for conservation sites, both freshwater and terrestrial, and developing decision support tools for managing infrastructure, natural floodplain management and environmental flows. The government's choice of TNC as executing agency is driven by the need to efficiently coordinate project activities among numerous national, regional and local entities.

- Ministry of Agriculture/AUNAP: will actively participate in activities related to fisheries management. AUNAP will provide co-financing for the development and the implementation of a fishery resource management plan.

- Alexander Von Humboldt Institute: will provide supporting decision making data, participate in the design of the long term monitoring activities of the project and will be one of the institutions responsible for the long run use of the monitoring system.

- Instituto de Hidrología, Meteorología (IDEAM): will participate in the development and implementation of the hydrological models. The IDEAM will place its 700 monitoring stations information data on precipitation, climate, and hydrology to serve the execution of this project.

- States, Municipalities and Regional Environmental Authorities: will play an active role in the selection of conservation sites, the process of preparing protection proposals and in the declaration of protection sites (for local and regional parks). Will also participate in the revision of watershed management plans and in implementing landscape management investments.

Others that will be involved include: 1) CARs - their action plans will have to be coordinated with the vision of the current project as a key element for success. 2) The local inhabitants that depend on the basin for their livelihoods will be involved in different activities and in the consultation process. Specifically, communities will be major actors in specific pilot projects for the protection and management of selected wetland areas, and the recovery of fishing stocks. Their role in the project will be further developed during project preparation.

As some of the baseline projects may be underway during project design, the full project proposal will indicate whether recognition of co-financing incurred before project approval will be required.

B.6. Outline the coordination with other related initiatives:

The government of Colombia is undertaking a major reconstruction effort after the flooding of 2010 and 2011. There are 2 funds that have been created for this purpose: the reconstruction fund and the adaptation fund. Most of the activities under these 2 funds are directed to build economic and physical infrastructure. However, the Colombian government is also interested in understanding the major causes of the flooding and is keen to support strategies and projects that go beyond the immediate reconstruction efforts towards a longer term vision to maintain the ecological stability of the basin.

MADS will formulate the strategic plan for the Magdalena basin and a specific project to preserve the Mojana wetland, involving its local communities in the preservation of fish resources as their main source of income and to restore the ecological structure of the wetland. On the other hand, Cormagdalena is in charge of developing a Magdalena Action Plan, and will receive funding from the Chinese Government to undertake this action. There are also many programs and actions being developed by the Regional Autonomous Corporations (CARs) in their area of jurisdiction.

It is especially important to mention the activities of the GEF/FEDEGAN (Livestock Federation of Colombia) project which are in the process of generating significant positive impacts on the conservation of biodiversity and the sustainability of livestock management in Colombia. The proposed project will combine with the GEF/FEDEGAN project to provide positive synergetic effects on biodiversity conservation along the Magdalena river and most importantly, will derive important lessons of a strategic, methodological and technical nature. Coordination with this initiative will focus mainly on sharing methodologies for the monitoring of the impacts on biodiversity conservation of the areas under improved land management/ sustainable use, as in both projects TNC coordinates the implementing these protocols.

The GEF is also financing the "Conservation and sustainable use of biodiversity in dry ecosystems to guarantee the flow of ecosystem services and to mitigate the processes of deforestation and desertification" project, to be implemented by UNDP. The project will be implemented at the same time in the same region (Magdalena Basin), with the same main partners (MADS and IDEAM), but will focus on different sectors of the Basin and ecosystems (dry forest) from those in the current proposed project. Its objective is to "reduce the current trend of dry forest deforestation and desertification processes and ensure the flow of multiple global ecosystem services through biodiversity conservation, sustainable land management, and carbon storage" is highly complementary to the proposed project as it will allow for the conservation of the main ecosystems of the Magdalena Basin. MADS will ensure coordination of activities, particularly where methodological approaches need to be coordinated, as is the case for updating POMCAs.

Finally, TNC with other actors are developing the strategy of the Conserva Colombia project, to incorporate regional and local new protected areas to the national system of protected areas. TNC is also involved in the development of the GEF sustainable cattle ranging project, involving cattle farms located in the Magdalena Basin. These two projects will support and complement the activities planned in the current project, for example, through incorporating lessons from the implementation of sustainable livestock practices and participatory mechanisms for protected area development.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

The IDB has over 50 years' experience working in Latin America, is the largest regional development bank and provides the largest share of multilateral funding in the region. The Bank has a long history of supporting environmental initiatives, including strengthening of environmental management, protected area management, coastal zone management, fishery management, rural productive initiatives, among others. In Colombia, IDB has extensive experience in the design and implementation of projects in the Magdalena River Basin that seek to improve the management of the Basin and its water resources. Currently under implementation, the objective of the US$450 million Medellin River Sanitation Program loan

(CO-L1034) is to reduce organic and other contaminants in the Medellin River (which forms part of the Magdalena Basin) by the treatment of waste water from the Medellin metropolitan area and reduction of contaminants in the Medellin watershed. While not included as co-financing, the loan will provide important benefits to freshwater biodiversity conservation in the priority freshwater ecosystems downstream from the Medellin River. The IDB is implementing loan CO-L1105 (US$ 60 million), which seeks to increase the cover of efficient and sustainable water services and improved management of waste water in rural communities. The project, which will be implemented by the Ministry of Housing, City and Regional Planning, will invest in strengthening of local communities' environmental awareness and improving and expanding the treatment of waste water services, addressing issues of water contamination. The results from this project are very complimentary to the main objective of the proposed GEF project in the Magdalena Basin as they will contribute to decrease the contamination and pollution in the Magdalena River which has direct negative effects on its biodiversity. Expected parallel financing from this operation is set at US$ 5 million.

In support of regulatory functions in water management, the IDB is currently supporting the Integrated and Adaptive Management of Water Resources in Colombia (CO-T1272), a $250,000 operation for the improvement of water governance in Colombia, focusing on the Magdalena River basin as a pilot case. Through regional, democratic and participative workshops with both institutional and ethnic bodies, the operation will deliver a diagnosis of the governance capacity, issues and lessons learned which will be later used to propose the institutional structure for water governance in the country. Another example is the Policy-based loan Disaster Risk Management and Climate Change Adaptation Program (CO-L1103; US$60 million) which will invest in a wide range of activities and actions to build resilience of critical ecosystems.

Finally, the IDB has experience designing and implementing natural resources GEF projects in Colombia, with three projects under implementation (Protecting Biodiversity in the Southwestern Caribbean Sea, Mechanism for Voluntary Mitigation of Greenhouse Gas Emissions in Colombia, and Mainstreaming biodiversity in palm cropping in Colombia with an ecosystem approach).

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

This project has no direct co-financing from the IDB.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The recent ninth capital replenishment of the IDB set forward a series of strategies and goals. This project supports one of its five sector strategies (protection of the environment and response to climate change) and its sustainable practices financing objectives (conservation and sustainable use of biodiversity). At the country level, the project is consistent with IDB's 2011-2014 Country Strategy for Colombia. In particular, it supports the Strategy's Natural Risk Management priority to include risk vulnerability and management into the planning and design of public policies and instruments. By improving the conservation of natural ecosystems and providing tools for the appropriate management of water resources, it is expected that the outputs of this GEF project will make a significant contribution to the Bank's development efforts in Colombia.

The project also will also contribute to the overall policy objectives of the Disaster Risk Management and Climate Change Adaptation Program (CO-L1103; US$60 million), a policy based loan approved in 2011, as it will improve risk management, and strengthen planning instruments for the most important river basin in the country.

Regarding IDB's capacity, the IDB is playing a major role in assisting the government in the reconstruction process after the catastrophes of the 2010 and 2011 rainy seasons. This support has been given through credits, technical cooperation and direct support. In this context, the

present project will be instrumental in developing an integrated vision that goes beyond the reconstruction process, and aids the country in being better prepared for natural disasters related to climate change.

For the execution of the project, the IDB office in Colombia will have a natural resource specialist responsible for the operation, with support from fiduciary specialists, also located in the country office. Furthermore, it is supported as needed by different units in its Washington based headquarters, including the IDB/GEF unit.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Adriana Soto	Vice-Minister	**MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**	**03/01/2012**

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
Michael Collins, IADB GEF Coordinator		01/25/2013	Michael Collins	202-623-2158	michaelc@iadb.org