



# REQUEST FOR CEO ENDORSEMENT

**PROJECT TYPE: FULL-SIZE PROJECT**

**TYPE OF TRUST FUND: SCCF**

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## PART I: PROJECT INFORMATION

Project Title: Adaptation to Climate Impacts in Water Regulation and Supply for the Area of Chingaza–Sumapaz–Guerrero			
Country(ies):	Colombia	GEF Project ID: <sup>1</sup>	4610
GEF Agency(ies):	Inter-American Development Bank. IADB	GEF Agency Project ID:	CO-G1002
Other Executing Partner(s):	Conservation International – Colombia on behalf of the Ministry of Environment and Sustainable Development	Submission Date:	08/29/2013
GEF Focal Area (s):	Climate Change- adaptation	Project Duration(Months)	60
Name of Parent Program (if applicable): For SFM/REDD+ <input type="checkbox"/>	N/A	Agency Fee (\$):	421,575

### **A. FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
CCA-1	Outcome 1.1 Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Output 1.1.1 Adaptation measures and necessary budget allocations included in relevant frameworks	SCCF	280,000	550,000
CCA-1	Outcome 1.2 Reduced vulnerability in development sectors	Output 1.2.1 Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	SCCF	330,000	550,000
CCA-2	Outcome 2.1 Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	Output 2.1.1 Risk and vulnerability assessments conducted and updated	SCCF	450,000	450,000
CCA-2	Outcome 2.2 Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Output 2.2.2 Targeted population groups covered by adequate risk reduction measures	SCCF	400,000	550,000
CCA-3	Outcome 3.1 Successful demonstration, deployment, and transfer of relevant	Output 3.1.1 Relevant adaptation technology transferred to targeted groups	SCCF	2,755,750	21,609,000

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the [Focal Area/LDCF/SCCF Results Framework](#) when completing Table A.

	adaptation technology in targeted areas				
<b>Total project costs</b>				<b>4,215,750</b>	<b>23,709,000</b>

## B. PROJECT FRAMEWORK

<b>Project Objective:</b> Strengthen the hydrological buffering and regulation capacity of the upper watershed of Chingaza-Sumapaz-Guerrero that supplies drinking water to the Bogota metropolitan area and the adjoining rural municipalities						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Co-financing (\$)
Overall Project		<p><b>General Outcome 1:</b> Hydrological buffering and regulation capacity of high mountain ecosystems (<i>páramos</i> and high Andean forests) is maintained or increased under conditions of climate change and variability.</p> <p><b><u>Outcome Indicator 0.1.</u></b> At least 10% increase in each prioritized area in water yield during dry season, as per calibrated model, due to the adoption of climate change adaptation measures in the prioritized areas.</p> <p><b>General Outcome 2:</b> Increased awareness of adaptation options and lessons learned from field experience in high mountain ecosystems</p> <p><b><u>Outcome Indicator 0.2.</u></b> Knowledge produced has been downloaded at least 500 times. Visitors to the websites are classified based on three required responses</p>				
1. Knowledge management  Transfer of information and knowledge on climate impacts on water regulation in	TA/Inv	<p><b><u>Outcome Component 1 (O.C.1.1)</u></b> Increased consideration of climate change vulnerability in land use and watershed planning</p> <p><b><u>Outcome Indicator 1 for</u></b></p>	<b><u>Output indicator 1.1.1</u></b> 5,500 km <sup>2</sup> of the Corridor covered by maps indicating the distribution of climate variables under climate change scenarios	SCCF	450,000	1,409,000

the Corridor to local communities and other stakeholders as a basis for a more effective hydrological management		<p><b><u>Outcome #1 Component 1 (I.O.C.1.1)</u></b> 6 land use plans, POTs, POMCAs or Watershed Management Plans, that incorporate climate change considerations (environmental determinants).</p>	<p><b><u>Output Indicator 1.1.2</u></b> 5,500 Km<sup>2</sup> of the corridor covered by maps assessing the changes in expected hydrological response of the high Andean ecosystems (analyzed on scales of 1:25,000 or finer)</p> <p><b><u>Output Indicator 1.1.3</u></b> 1 Technical/scientific vulnerability report, prepared and subjected to peer review, assessing the hydrological response of high Andean ecosystem to the changes described in the CC scenarios, and incorporating precipitation, temperature and cloud cover</p> <p><b><u>Output Indicator 1.1.4</u></b> At least 500 officials from Ministry of Housing, City and Territory, MADS, EAAB's, rural and municipal water supply systems, and regional environmental agencies (CARS), trained in the use of climate change scenarios and risk &amp; vulnerability assessments.</p>			
2. Adoption of adaptation measures to address impacts of climate variability and change on the hydrological balance of prioritized area	Inv/TA	<p><b><u>Outcome Component 2 (O.C.2)</u></b> Increased adoption of climate adaptation measures to reduce water vulnerability to climate change in accordance with land use and watershed plans.</p> <p><b><u>Outcome Indicator 2.1 Component 2 (I.O.C.2.1)</u></b> 32 new proposals for</p>	<p><b><u>Output Indicator 2.1.1</u></b> 4,250 ha under restoration of high mountain ecosystems in areas critical for hydrological regulation.</p> <p><b><u>Output Indicator 2.1.2.</u></b> 398 ha under re-vegetation programs in three critical areas for water supply. - Re-vegetated area</p>	SCCF	3,344,175	19,750,000

		funding received by MADS for developing / implementing adaptation measures from municipal governments and CBOs in (a) the Chingaza, Sumapaz, Guerrero corridor, and (b) outside the corridor.	(298 ha) through gender-focused pilot projects in three areas that are critical for water supply.  <u>Output Indicator 2.1.3.</u> 360 families that incorporate adaption measures or climate-resilient management practices in their production systems and increase their net income.  <u>Output Indicator 2.1.4.</u> 1 Monitoring and evaluation system to track the impacts of adaptation measures in the water cycle deployed.			
Subtotal					3,794,175	21,159,000
Project management Cost (PMC) <sup>3</sup>				SCCF	421,575	2,550,000
<b>Total project costs</b>					<b>4,215,750</b>	<b>23,709,000</b>

### C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming co-financing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (\$)
GEF Agency	Inter-American Development Bank	Hard Loan	11,400,000
Other	Bogota Water and Sewerage utility (EAAB)	Grant	10,000,000
National Government	Ministry of Environment and Sustainable Development	In-kind	65,000
National Government	National Institute of Hydrology and Meteorology (IDEAM)	In-kind	544,000
Local Government	Regional Environmental Agency for the Guavio region (CORPOGUAVIO)	In-kind	250,000
Local Government	Regional Environmental Agency for the Cundinamarca region (CAR)	In-kind	550,000
GEF Agency	Inter-American Development Bank	Grant	900,000
<b>Total Co-financing</b>			<b>23,709,000</b>

<sup>3</sup> GEF will finance project management cost that is solely linked to the GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

**D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
Inter-American Development Bank (IADB)	SCCF	Climate Change Adaptation	Colombia	4,215,750	421,575	4,637,325
<b>Total Grant Resources</b>				<b>4,215,750</b>	<b>421,575</b>	<b>4,637,325</b>

<sup>1</sup> 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. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**E. STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS – PLEASE COMPLETE ANNEX C****F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
International consultants	150,000	250,000	400,000
National / Local consultants	655,000	1,755,000	2,410,000

**G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No**

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

**PART II: PROJECT JUSTIFICATION****A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF<sup>4</sup>**

1. Project management costs for the proposed project have been estimated to be higher than originally expected. The justification for higher project management costs is based on the following arguments: (i) The *Adaptation to Climate Impacts in Water Regulation and Supply for the Area of Chingaza, Sumapaz, and Guerrero* Project will be executed in 5 years; (ii) GEF resources will be executed through a dedicated project implementing unit, PIU, in attention to the origin of the resources and the procedural and fiduciary requirements defined by IADB; and, (iii) Co-financed resources will be executed through a different PIU,

<sup>4</sup> For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question

under study by the partner organizations (EAAB, CARS and municipalities with guidance from the Government of Cundinamarca). Although both PIUs will be fully independent both share the same Project Steering Committee and same Technical Committee. Each PIU will follow administrative, procurement and financial management guidelines in agreement with their sources of funding. Project management costs have been estimated for a GEF dedicated PIU, housed in CI-Colombia, with responsibilities comprising technical, scientific, administrative, financial and procurement management activities. More precisely, the PIU responsibilities include:

2. *Technical direction and coordination of activities.* The PIU will be headed by a senior project manager, with knowledge and field work experience in the area of the project. This professional will have no less than 18 years of experience, advanced degree in a field related to the project, experience in adaptation to climate change of no less than 5 years. His/her responsibilities will include the overall coordination of all activities, provide technical guidance, conduct project management activities, including detailed project control to monitor progress in all activities. The project manager will also be responsible for the timely preparation of all the documentation needed for project development, as required by the MADS and IADB, inform and seek guidance from the Steering Committee, convene the Technical Committee and promote coordination meetings and retreats with all the personnel involved in the project. Moreover this professional will have to coordinate all activities with the many stakeholders and seek a jointly and smooth implementation of co-financed resources been implemented through a different management arrangement.

3. *Administrative support.* The PIU will provide all administrative and logistic support required for the responsive implementation of the project. The activities included in the administrative management of the operation includes, among others: (i) archiving of all communications and technical reports, maintain a web-based portal for the project to facilitate communications, access to all documentation, tools for joint work, and exchange of large files; (ii) coordination of communications and appropriate call referral; (iii) provide space and facilities for the project team to execute its tasks; (iv) provide facilities for technical and project management meetings; and (v) document preparation facilities.

4. *Financial Management activities.* The PIU will be responsible for the appropriate use of the resources allocated to the project. Accounting and archiving of all expenditures, following the strict procedures and standards agreed with IADB, will be headed by a professional acceptable to the IADB and with experience in managing GEF funds, or resources from multilateral development banks and/or international bilateral, multilateral and/or donor organizations. This professional will be in charge of preparation of all the documentation required for timely disbursement as well as for keeping updated all books and warranting resources for the adequate cash flow of the project.

5. *Procurement management.* The PIU will follow the procurement guidelines set by the IADB. The PIU should develop a procurement capability according to the responsibility to fully implement the project in the period of 5 years as per the technical project description. CI – Colombia will support the preparation of annual procurement plans, provide legal coverage to the PIU, MADS and the IADB, provide adequate technical and administrative support for agreement executions, oversee that contractors have the adequate conditions to execute their job and that all agreement include the provision for prompt implementation. CI-Colombia will provide the technical backstopping for the preparation of terms of reference and simple procedures for payment for work executed at satisfaction.

6. Following the above description costs have been estimated as indicated below:

- 1) Project manager-technical advisor: 60 months of experienced project manager familiar with the area of intervention and well versed in the implementation of adaptation projects. This role could be combined with a part time technical expert with no less than 5 years of experience in the topic. This professional will give advice to the project manager in critical decision making processes that require

- a detailed revision of technical documents and additional references.
- 2) Financial Management Specialist: 60 months -partial time- professional financial manager with experience with the execution of multilateral projects.
  - 3) Procurement specialist: 60 months -partial time- professional engagement to support the execution of the project.
  - 4) Financial Audit along the project execution
  - 5) Logistic and administrative support.

Management costs according to the tasks defined are as follows:

Project management:	US\$ 185,945
Financial Management:	US\$ 82,598
Procurement management:	US\$ 67,374
Administrative and logistic support:	US\$ 85,658
<b>TOTAL</b>	<b>US\$421,575</b>

Although this estimate does not include overhead expenses, nor management oversight, it exceeds the general GEF guidelines. The project preparation team found no feasible reduction to this item, without compromising the expected performance of the Project. A similar and parallel analysis has been made for the assessment of the management costs for the execution of the co-financed activities. The estimated cost, including logistic support, general coordination, financial and procurement management, quality control, project documentation and stakeholders coordination amounts to \$2,550,000.

**A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.**

NA.

**A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities**

Clarification on attached co-financing letters

- **IDB co-financing (hard-loan):** Attached copy of the resolution of funds approval for a total of US\$ 60 million was issued by the Bank for the baseline program *Water Supply and Sanitation Services for Rural and Semi-Urban Areas*. However, only a percentage of these resources, specifically US\$ 11.4 million have been accounted for as counterpart for the present GEF project.
- **IDB co-financing (non-reimbursable technical cooperation):** Attached copy of the registry of approval for the technical cooperation financed by IDB accounts for cash resources from the Bank (US\$ 900,000) and in-kind contribution from the beneficiary country (US\$ 225,000) for a total of US\$ 1,125,000. Only the cash portion granted by the Bank (US\$ 900,000) has been accounted for as co-financing for the GEF project.
- **Bogota Water Utility co-financing:** The attached official co-financing letter sent by the Bogota Water Utility mentions a grant amount of US\$50 million that will be used among others to finance a group of conservation and restoration activities in the Chingaza corridor area. However, only a portion of this amount, specifically US\$ 10 million, has been considered to be directly related to the objectives of the GEF project.

**A.3 The GEF Agency's program and its comparative advantage:**

NA.

#### **A.4. The baseline project and the problem that it seeks to address:**

7. As described in the PIF, the baseline scenario is largely built around two complementary programs: (i) Bogotá's EAAB, *Program for the conservation and restoration of mountain wetlands in the area of Chingaza and Sumapaz*, and (ii) IADB's program Water Supply and Sanitation Services for Rural and Semi-Urban Areas, with the Ministry of Housing, City and Territory (*Ministerio de Vivienda, Ciudad y Territorio, MVCT*).

8. In addition, the baseline scenario includes regional and local planning and managing efforts regarding land-use planning and disaster risk management. The participating municipalities (Guatavita, Tausa, Cogua, Guasca and Sesquilé) and Bogotá have developed Land-Use Plans (*Planes de Ordenamiento Territorial*), POTs that define zoning and land use, including the definition of high vulnerable areas to natural hazards. These municipalities have also Development Plans (*Planes de Desarrollo Municipal*, PDMs) through which investments for land-use planning, risk management, rural development and environmental management are established for the 2012–2015 period. The PDMs for the four municipalities include projects to acquire land for the protection of strategic ecosystems and to prevent and mitigate natural risks, for the restoration of degraded areas, for the sustainable of critical watersheds and micro-watersheds, for the purchase and protection of areas feeding municipal and local potable water systems, for the protection of páramos and water bodies, and for soil conservation. But municipalities do not identify climate variability and change as a threat to their efforts to regulate and supply water to their population. Currently no budgetary allocations have been identified for adaptation measures.

9. At the watershed level, Colombia has developed guidelines and timelines for the preparation of watershed management plans, called POMCAS. The Bogotá River Watershed Management Plan (*Plan de Manejo y Ordenamiento de una Cuenca*) (CAR Resolution N° 3194, 2006) identifies the restoration of critical or degraded areas, defines land zones for productive agricultural activities and for urban development. This plan also indicates that change in attitude by the population is an essential factor to achieve long term sustainability. The POMCA proposes the development of a strategic agricultural development program to create incentives for establishing, maintaining and recovering forest areas and developing agroforestry production systems, and a strategic program for conservation, restoration and sustainable use of strategic ecosystems. Finally, the POMCA for the Guavío River and its drainage areas within the municipalities of Guasca and Fómeque, developed by CORPOGUAVIO, defines areas for restoration. It is worth noting that neither of the POMCAs makes reference to climate change and/or adaptation.

**A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:**

NA



**A.6 Indicate and describe risks, including climate change risks that might prevent the project objectives from being achieved, and measures that address these risks:**

<b>Risk</b>	<b>Rate</b>	<b>Risk Mitigation Strategy</b>
<p>Coordination between agencies and offices from the governments of Bogota and the State of Cundinamarca could temporary become difficult if political tensions rise, delaying and in extreme cases even preventing the implementation of some interventions –trainings, active participation and work with the municipalities.</p> <p>The main sources of water for the Bogota are in the State of Cundinamarca. Water and environmental coordination between state and city governments traditionally takes place in Board Meetings at CAR. They have shared Chairmanship of CAR as regional environmental authority, and recipient of important resource transfers from Bogota. The relation between the authorities has not been as smooth as desired and has deteriorated in recent years as population growth in Bogota has forced the EAAB to withhold services that previously sold to neighboring municipalities.</p>	Medium	<p>The project has been designed for the benefit of population belonging to both jurisdictions. The criteria used for the selection of priority sites included that the waters served local water supply systems (beneficiaries from the municipalities) as well as the Bogota water utility. Moreover, the project's Steering Committee has been designed to bring the key actors together, under the presiding oversight of the Ministry of the Environment and Sustainable Development, to favor high level coordination and to reduce tension with the potential to impact the execution of the project</p>
<p>Limited participation by key actors – MADS, State Government, CARS, EAAB, municipal governments and communities could restrict the attainment of targets and goals. Targets have been set, and agreed with key stakeholders, under the assumption of active participation and coordination by the several organizations working in each activity and area of interest. Low public management capacity and potential lack of commitment by these agencies contributing to the program could be a potential risk.</p>	Medium	<p>Activities to ensure their active participation will be structured according to the level of capacity required to guarantee the project's sustainability. The project will foster the construction of participation spaces in all stages of project planning and execution to mitigate this risk. Moreover, the project has engaged during its design phase all participating institutions, such as the CARS, and the Bogotá's Water Utility (EAAB), Municipal Governments and communities in the prioritized areas. Other strategic actors were consulted and have had the opportunity to participate in project design Existing capacities of strategic local actors to contribute to project objectives will be assessed during project design.</p>
<p>There is a risk that the procurement process be lengthy and cumbersome, which would impact project execution.</p>	Low	<p>To lower this risk, the implementation arrangements have to be carefully thought through with the Bank's specialists and the Ministry of Environment.</p>

## A.7. Coordination with other relevant GEF financed initiatives

10. **The proposed SCCF project will benefit significantly from experiences** gained from the GEF funded *Integrated National Adaptation to Climate Change Program* (INAP), which was carried out by the Government of Colombia through IDEAM and Conservation International–Colombia, with the participation of other government institutions, from 2006 to 2011. The proposed project will apply the lessons learned and scale up INAP’s successful adaptation actions piloted in its Component 2 into a larger area.

11. As indicated in the Table below GEF has financed, or is in the process of funding, at least 7 projects with direct relevance and similarity in at least two or more components with the proposed SCCF project. In order to gain from the global experience (still in the early stages of development) a knowledge sharing platform will be developed with two objectives: a) create a network to facilitate the communication between development practitioners and decision-makers working on similar projects, and b) exchange of lessons learned and share experiences with the knowledge and dissemination activities.

Table: GEF relevant financed initiatives (as of March 2013)

GEF_ID	Country	Project Name	Focal Area	Agency	Project Type	Status
4234	Senegal	Climate Change adaptation project in the areas of watershed management and water retention	Climate Change	IFAD	FP	CEO Endorsed
4434	Cambodia	Strengthening the adaptive capacity and resilience of rural communities using micro watershed approaches to climate change and variability to attain sustainable food security	Climate Change	FAO	FP	Council Approved
3838	Rwanda	Reducing Vulnerability to Climate Change by Establishing Early Warning and Disaster Preparedness Systems and Support for Integrated Watershed Management in Flood Prone Areas	Climate Change	UNEP	FP	CEO Endorsed
3963	Venezuela	Social Integral Development and its Interrelation with Climate Change in Watersheds in Lara and Falcon States (Venezuela) (PDELAFA)	Climate Change	IFAD	FP	CEO Endorsed
5124	Lesotho	Strengthening Capacity for Climate Change Adaptation through Support to Integrated Watershed Management Programme in Lesotho	Climate Change	FAO	FP	CEO PIF Clearance
4261	Azerbaijan	Integrating climate change risks into water and flood management by vulnerable mountainous communities in the Greater Caucasus region of Azerbaijan	Climate Change	UNDP	FP	CEO Endorsed
2019	Colombia	Integrated National Adaptation Plan: High Mountain Ecosystems, Colombia's Caribbean Insular Areas and Human Health (INAP)	Climate Change	IBRD	FP	Implemented

## **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

### **B.1 Describe how the stakeholders identified at PIF stage will be engaged in project implementation.**

12. The following implementation structure has been defined with in consultation with all stakeholders:  
**Implementing Agency:** IADB will be the project's Implementing Entity.

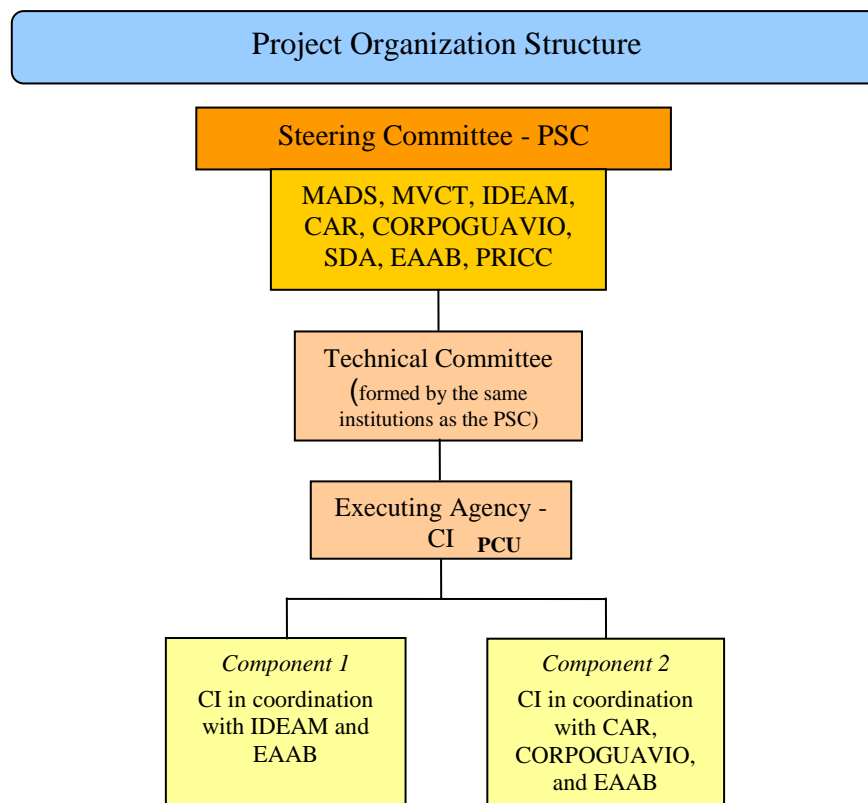
13. **Executing Agency:** The project will be executed by the MADS, through CI's subsidiary in Colombia, in close coordination with IDEAM. CI was founded in 1987 as a nonprofit organization, with an innovative focus on preserving the planet's biodiversity. Since then, CI has worked with hundreds of partners in over 40 countries, located on five continents, where the world's areas of greatest biological wealth are located. The objective of CI-Colombia is to strengthen the institutional development of non-governmental environmental organizations, support their initiatives and activities and serve as an international focal point to channels efforts that contribute to the achievement of the country's conservation objectives. As per agreement with MADS CI will execute the project in close coordination with IDEAM whom will act as both the head of the technical committee and the scientific-technical coordinating body on behalf of the MADS. CI Colombia has executed several international funded ecosystem-based adaptation projects, including the GEF Integrated National Adaptation Project, INAP, a predecessor of the proposed project. Moreover, previous work in the area of interest including the design of the "corridor" concept, provide assurances of technical competence including a group of professionals with ample knowledge of the local issues.

14. Prior to the first disbursement of the project, the MADS will enter into an Implementation Agreement with CI-Colombia, on the terms previously agreed upon with the Bank. The agreement must include at least the following aspects of project management: (i) application of Bank's fiduciary and procurement policies; (ii) preparation of management tools such as the Multi-year Execution Plan (MEP), the Annual Work Plan (AWP) and a budget; (iii) financial and accounting management (including financial statements); and (iv) preparation of project progress reports, among others. Specific responsibilities include: (i) preparation of an operational manual in accordance with IDB policies and standards, to be submitted to the Project Steering Committee (PSC) for approval; (ii) update the AWP with the assistance of and in agreement with the project's technical committee, for the consideration of the PSC and the non-objection of the implementing agency; (iii) carry out the actions outlined in the approved AWP in accordance with its terms; (iv) open separate accounts to manage project funds; (v) prepare and submit disbursement requests to the IDB, with relevant supporting documentation for eligible expenses; (vi) ensure the quality of procurement and hiring processes, in compliance with applicable IDB policies; (vii) verify the quality of goods and services provided by contractors and making the corresponding payments; (viii) prepare progress reports; and (ix) ensure compliance with the terms of the grant agreement to be signed with the IDB, in order to achieve the expected results of the project. Finally, the ultimate responsibility for project execution, including the adoption of planning tools, and the preparation of progress reports, financial statements, etc., rests with CI-Colombia.

15. **Project Steering Committee:** To ensure the effective coordination and a strategic alignment with the project's partner institutions, a steering committee will be created. It will comprise high level representatives from the MADS, EAAB, IDEAM, CORPOGUAVIO, CAR, the District-level Secretariat of Environment of Bogotá (SDA), the Ministry of Housing, Cities and Land (MVCT) and the Regional Comprehensive Plan on Climate Change (PRICC) director (with voice but no voting rights). The detailed roles and responsibilities of the PSC will be formalized with interagency agreements established between its members and the MADS, and in the Project Operational Manual (POM). The PSC roles and responsibilities include: (i) approval of the POM; (ii) approval of project planning tools such as the MEP and the AWP; (iii) review of progress reports; and (iv) provision of strategic and operational recommendations to achieve the project results. The PSC will meet at least once every six months or more frequently if convened by MADS. The PSC could invite practitioners and

scientists to participate in meetings to provide technical support for decision-making. Other institutions involved in the project's area of interest may be invited to this PSC, including the Government of Cundinamarca, the National Parks System, and the municipal governments. Key partners of the project include the Alexander von Humboldt Institute and CSOs within the prioritized areas, among others. The designation of representatives from each of these institutions will be a condition for first disbursement.

**16. *Project Technical Committee:*** The project will have a Technical Committee (TC) for overall project technical oversight. The TC will meet at least once every three months. The TC will be composed of the same institutions that form the PSC. IDEAM will preside over the TC. The TC's responsibilities include providing technical guidance, endorsing Terms of Reference for the implementation of technical aspects of the project, reviewing final project deliverables to assure good technical quality, and recommending complementary analyses, among others.



**Figure 2. Project execution structure**

17. **Project Coordinating Unit (PCU): Roles and Responsibilities:** CI-Colombia will set up a Project Implementing Unit, which will consist of at least a National Project Coordinator (NPC) and an Administrative and Financial Assistant. The unit will be financed with project funds. The NPC will report to CI's-Colombia board of directors who will supervise the project's technical development. The consultants hired to work on the present project will report to the NPC. The technical units of CI and partner institutions will supervise consulting services.

18. The NPC will be responsible for the following tasks: (i) lead the project's operational management and the preparation of the MEP, the AWP and the progress reports; (ii) ensure that the procurement of all goods and services required for the project is carried out in accordance with IDB policies, and in coordination with CI's technical and support units; (iii) supervise both the administrative and financial assistants; (iv) make sure that the audited annual financial statements are prepared in a timely fashion in coordination with CI's support units; (v) act as focal point and promote active collaboration between CI and all the partner institutions, contractors and key stakeholders involved, including IDB and SCCF/GEF; (vi) in coordination with the project technical committee, assure technical quality of project's generated products.

19. The Fiduciary and Procurement Specialists will provide support to the NPC in a wide range tasks, from financial and accounting issues, to procurement and hiring processes. They will assist in the preparation of documentation to support all sorts of transactions, as well as accounting and financial records, administrative information and disbursement requests, in coordination with CI's respective units. Also the Specialists will design and implement the project procurement plan and support CI and other partner institutions in all aspects of the project related to personnel, financial and accounting management, treasury, procurement, internal control,

etc. They will report to the NPC.

**20. Project main stakeholders:** The main institutional stakeholders are the environmental authorities (MADS, Administrative Unit of the Protected Areas System of Colombia (UAESPNN), CAR, CORPOGUAVIO and SDA), research institutes (IDEAM, Institute Alexander von Humboldt), the Government of (the State of) Cundinamarca, and EAAB. The execution of Cooperation Agreements with each of these institutions and the Executing Agency is a condition for the first disbursement. The MADS is expected to coordinate the actions of the baseline project with the proposed SCCF-funded intervention. Other key stakeholders at the local level will include grassroots communities, community action boards and other teams responsible for land-use planning instruments. In addition, municipalities and their planning agencies (mayors, municipal councils, etc.) and joint committees for the management of watersheds and shared ecosystems are considered relevant. All have actively participated and collaborated in the preparation and design of the project through the different discussion meeting carried out, and will participate in the validation and implementation of the specific interventions through workshops and public consultations, as required. Moreover local governments will receive training on how to include climate change considerations into land use plans.

Stakeholders	Description and Role of Stakeholders in Project Implementation
Ministry of Environment and Sustainable Development (MADS)	MADS is the country's highest environmental authority and is responsible for guiding the environmental sector and regulating environmental planning and defining policies and regulations. MADS will provide conceptual and technical leadership to the project through its Climate Change Division. MADS is the SCCF's Operational Focal Point and will preside the SCCF-funded Project Steering Committee.
Autonomous Regional Corporations (2), CARS	CAR and CORPOGUAVIO. The CARS are the environmental authorities responsible for the implementation of environmental policies, plans, programs and projects within their respective jurisdictions. They will provide technical support for the implementation of adaptation measures in prioritized areas. They will be key project partners for the development and implementation of the monitoring system to assess the project's impacts and will provide guidelines for the incorporation of specific adaptation considerations in municipal land-use planning tools. CAR and CORPOGUAVIO will be members of the Project Steering Committee.
Bogotá Water Utility Company (EAAB)	EAAB is responsible for the protection, management and conservation of areas that are key for the production and supply of water for Bogotá D.C. EAAB is also responsible for ensuring the supply of drinking water to more than seven million people in the Bogotá metropolitan area and its adjoining municipalities. EAAB is a key source of funding the project and a member of the Steering Committee.
Government of Cundinamarca	In conjunction with the Departmental Assembly, the Government of Cundinamarca is responsible for the establishment of guidelines for land-use and territorial planning within its jurisdiction. The Government of Cundinamarca will provide support to the CARS and municipalities in defining guidelines for the incorporation of adaptation considerations in their land-use planning tools.
Bogotá's Municipal Government	Bogotá's Municipal Government is the highest authority for the City of Bogotá D.C. and is responsible for implementing laws and regulations within its jurisdiction. The agency will be a key project partner and actions must be coordinated with it to articulate the different adaptation-to-climate-change initiatives being implemented in the Corridor, including the <i>Regional Comprehensive Plan on Climate Change of the Bogotá-Cundinamarca Capital Region</i> (PRICC), an initiatives established as a partnership among the Government of Cundinamarca, Bogotá's municipal government, and the District Department of Environment (SDA).
Bogotá's Department of Environment (SDA)	SDA is the environmental authority in Bogotá D.C. This agency is in charge of formulating and guiding policies, plans and programs for research, conservation, improvement, promotion, evaluation and sustainable use of natural resources and environmental services in Bogotá D.C. and its adjoining natural areas. SDA will be a member of the Project Steering Committee.

Municipal Governments (5)	The Cogua, Tausa, Sesquilé, Guatavita and Guasca municipal governments are project partners that will facilitate the implementation and adoption of adaptation measures within their respective jurisdictions. They are the highest authorities at the municipal level, and are in charge of implementing laws and regulations at this level. Together with the municipal councils, they will be directly responsible for defining and approving the incorporation of adaptation considerations in POTs and PMDs and for developing strategies and actions to mitigate or prevent the impacts of climate change.
Civil Society Organizations (CSOs) and Trade Organizations	Civil society in the prioritized areas/municipalities is organized into multiple organizations, including women's groups, dealing with water resources protection, natural resources management, environmental protection, and support for and promotion of production activities, mainly agriculture and livestock. CSOs and trade organization will be instrumental in the implementation of gender-sensitive pilot projects to increase water regulation capacity through revegetation and improved engineering works in critical water supply areas, and the adoption of climate-resilient management practices and implementation of adaptation measures in local production systems.
Landowners / landholders	Landowners will be direct local beneficiaries of all project activities, in particular the development of climate-resilient management practices and adaptation measures in local production systems, which will result in sustainable water use in agricultural systems as well as in the improvement of food security and quality of life. They will also benefit from the technical assistance and training to be provided by the project.
Institute of Hydrology, Meteorology and Environmental Studies (IDEAM)	IDEAM will act as the scientific-technical body for the project, providing technical support and meteorological and climate information related to the Corridor and the prioritized areas, and information regarding climate variability and change. IDEAM will be a member of the SCCF-funded Project Steering Committee.
National Park Authorities (Chingaza and Sumapaz)/ UAESPNN	The Chingaza and Sumapaz National Parks are located within the Corridor. Park officials will provide technical support in the design of restoration activities of high mountain ecosystems that will contribute toward promoting ecosystem connectivity in the Parks' buffer zones.
Nongovernmental Organizations (NGOs)	Several NGOs work in the Corridor area (e.g., Fundación Natura, Patrimonio Natural, and local environmental organizations in the municipalities of Cogua, Guasca, Guatavita, Sesquilé, Tausa and Bogotá D.C.) and have extensive experience in natural resources conservation and management and in sustainable development. They will provide technical support and leadership for the implementation of local-level adaptation activities (i.e., restoration, ecosystem connectivity, etc.).
Ministry of Housing, City, and Territory (MVCT)	The MVCT is the executing agency of the <i>Water Supply and Sanitation Services for Rural and Semi-Urban Areas Program</i> , which is the main component of the baseline of the SCCF-funded project. The lessons learned, activities for capacity building, knowledge obtained, and investments made with SCCF funding with respect to anticipated changes in the water regulation cycle will be used to support the inclusion of adaptation measures in the design and implementation of activities to be funded under this program. The SCCF-funded project team will closely coordinate actions with the MVCT, which will be a member of the SCCF-funded project Steering Committee.
Conservation International–Colombia	Conservation International (CI) in Colombia works to protect the country's most valuable, threatened and productive places as a strategy for protecting threatened species, while ensuring that human communities continue to thrive both in remote landscapes and in cities such as Bogotá. CI also works on climate change mitigation and adaptation initiatives. CI will be the project's executing agency on behalf of MADS and will be the Technical Secretariat of the Project Steering Committee.
Inter-American Development Bank (IADB)	The IADB is the Project's Implementing Agency and is responsible for the overall supervision and oversight of project's implementation. It will provide guidance, institutional support, fiduciary oversight, technical and administrative assistance, as well as theoretical and practical knowledge at the international level for effective project implementation.

**B.2 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/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read [Mainstreaming Gender at the GEF.](#)":**

21. The project is expected to generate a wide range of benefits. For presentation purposes, and in order to make the distribution of benefits more comprehensible, the project positive impacts have been grouped as follows: (a) Knowledge and capacity building benefits; (b) direct local benefits, those accruing to the people living in the micro-watershed including environmental and ecosystem benefits; and, (c) direct regional benefits, those improving the living conditions of people outside the micro-watershed. This grouping minimizes the possibility of double counting and allows for the use of alternative methodologies to assess costs and benefits. More specifically:

22. **Knowledge and Capacity Building Benefits.** In the group of knowledge and capacity strengthening, benefits are referred those products, services and materials developed by the project that could be used by partner organizations, or similar groups working in other mountainous areas (in Colombia and around the world). Specifically the following benefits are identified: (i) development of a methodology and the corresponding maps in the biological corridor Chingaza-Sumapaz-Guerrero identifying high water yielding areas where investing in hydrological conservation is expected to generate high pay offs. The regional environmental authorities will have access to a proven methodological approach and information on areas of great interest from the downstream water users' point of view. It will also guide the "environmental determinants" used by CARS to guide land use decisions by the municipalities. The methodology and the results will be shared with a wide audience nationally and internationally of stakeholders working in adaptation to climate change in high mountain areas and in integrated watershed planning and management.

23. The generation of reliable and verified climate change information, at scales for planning and design, is also a product generating benefit outside the micro-watersheds. (ii) This information is useful for local land use and territorial planning and management and will be combined with training to make it useful and applicable to the need of municipalities and CARS. Decision-makers will also benefit from the pilot and demonstrative nature of the interventions. Implementations of productive adaptation measures will exemplify the variety of climate resilient measures available, and highlight those with high pay-off to society. The project will benefit ten (10) regional and local agencies (CARs, four [4] municipalities, the Government of Cundinamarca, and CSOs) through a capacity-building program that will increase their skills and the knowledge of agency officials regarding climate change adaptation and territorial planning. This capacity-building program will facilitate the incorporation in land-use planning and investment tools (POTs and PDMs) of adaptation measures to reduce vulnerability to climate change impacts and enhance the water supply and regulation capacity of the high Andean ecosystems present in these municipalities.

24. **Direct Local Benefits.** The project will directly benefit farmers and their families that will implement the pilot adaptation measures agreed for funding through the project. The proposed changes in production systems seek to reduce conflicts between land use potential and existing practices, while at the same time fostering a vegetation cover that enhances water yield and regulation and favors biodiversity. Also, costs and revenues from these initial pilot interventions will provide information for the design of alternative approaches to scale up the intervention. In all cases the adaptation measures need to show that by participating in the Project, local farmers and their families improve their living conditions and productivity. Specific climate-resilient management practices will initially be deployed in four (4) micro-watersheds within three (3) prioritized hydrological units directly benefiting 60 families of landowners or farmers (20 per hydrological unit). These practices, gender sensitive, will be designed to contribute to the goals of watershed management (reduce soil erosion, increase vegetation cover, foster increased water yield and regulation capacity, enhance soil's water retention and therefore reduce the likelihood of natural fires) while at the same time improve in-farm water-demand efficiency during dry periods and simultaneously increase productivity and family incomes, thus generating improved quality of life and food security. These adaptation practices include the adoption of agro-silvopastoral systems, improved/climate-resistant pastures,



improved irrigation techniques, the effective use and management of micro-reservoirs, water channel improvements, and the use of animal water troughs. More specifically, there will be improved efficiency in water demand in three local production systems (potatoes, cattle ranching and vegetables), an increase in production for self-consumption and to sell in local markets, increase in family income, and an increase in the level of women's participation in income-generating activities for families that adopt climate-resilient management practices and adaptation measures. Furthermore, the project's activities will also result in improved adaptive capacity of the communities directly affected because the planning and investment activities will be undertaken with their full participation, with a gender sensitive approach to incorporate and respond to the unique needs of women. In addition the project will provide long term sustainability to the production of environmental services in the micro-watersheds, through restoration and natural re-vegetation, reforestation and conservation of key ecosystems, while adjusting production systems to make them environment friendly. After a short period of experimentation (one hydrologic year with improved practices) lessons learned will be used to initiate the scale up effort to cover the entire corridor through intervention lead by partner organizations (CARS and EAAB).

25. As described in the detailed accompanying documents (see Economic Analysis Annex to the IADB Proposal for Operation Development, POD) the proposed enhanced practices are financially very attractive for the farmers or landowners. Financial calculations indicate that for the two main products in the area of interest expected farm revenues increases are 43% and 41% for potatoes and milk production respectively. Furthermore, using a discount rate of 12% and a planning horizon of 20 years both products show high positive net revenues, and in both cases farmer revenues are never negative, even if no financial mechanism (loan to reduce the impact on expenditures concentrated in one or two years) is used. It is highlighted that in the case of milk production the increased productivity comes associated with an increase in production costs that might become a drawback for some farmers. Technical assistance and guidance during the early years are suggestions to reduce or mitigate this potential risk.

26. **Direct Regional Benefits.** These project's specific benefits include an improvement in the reliability of water supply, mitigation of the effects of flood events and drought periods by increasing the buffering capacity of mountain wetlands and their restoration, and maintenance of water retention in the wetlands and upper watersheds that will contribute toward maintaining soil moisture and reduce the likelihood of fire events, all of which will directly impact the food security and quality of life of the communities in the project's area of influence. These actions will directly benefit approximately 9,000 families (approximately 36,000 individuals) in five (5) municipalities within the Corridor (Guasca, Guatavita, Sesquile, Cogua and Tausa). As described in detail in accompanying Economic Analysis Annex increased natural forest cover, including protected areas of key ecosystems and high altitude wetland ecosystems, are associated with increased water regulation, as measured by larger dry period flows. The corresponding volume of additional water, assessed through contingent evaluation methods (conducted by studies prior to this initiative) provides clear indication that the project benefits are greater than the costs (benefit to costs ratio of 1.96) in the baseline analysis, and that the project feasibility is robust to a wide range of estimates related to costs, benefits and interest rate used.

27. From the aggregated economic point of view a very strict threshold was imposed. The Project is considered economically viable only if the adaptation measures contribute to the general welfare. That is, the regional beneficiaries' welfare must increase beyond and above the total costs of implementing the adaptation measures. To estimate changes in welfare a cost benefit analysis was conducted as reported in detail in the Economic Analysis Annex to the POD. The main assumption for the use of the cost-benefit analysis in this case is that land use change, through the implementation of the proposed adaptation measures, has a known impact in water availability and natural regulation capacity. In order to assess this impact an exploratory cross-section exercise was undertaken using available information (runoff and forest cover) in 27 micro-watersheds along the Chingaza – Sumapaz – Guerrero corridor. A simple linear regression shows that the percentage of high-mountain ecosystems in the micro-watersheds is positively correlated with water availability during the dry seasons. An increase of 1% in Andean high mountain vegetation will increase 0.0132 m<sup>3</sup>/yr/m<sup>2</sup> the water availability in the watershed in dry

conditions. Consequently, for the selected micro-watersheds, it is estimated that the project interventions will increase the water supply in a climate change scenario, in a range from 10% to 20%. The availability of additional water during the dry months allows an increase in reliable water supply for the surrounding communities and Bogotá. Using a contingent valuation approach to estimate the willingness to pay for the additional water a benefit cost ratio close to 2.0 was estimated (discount rate 12%, planning horizon 20 years).

28. These results point towards the assertion that improved natural water regulation capacity in the upper watershed, through preservation and enhancement in surrounding wetlands and protection and revegetation of degraded lands in the high Andean forests surrounding the Bogotá metropolitan area could be expected to result in better supply conditions, thus reducing the long-term marginal costs of investments to maintain and secure a stable water supply for the region. As previously indicated the region includes 11 rural municipalities as well as peri-urban and urban areas in the Bogotá D.C. metropolitan area. A population of more than 7 million inhabitants is the potential indirect project beneficiaries.

29. The design and implementation of adaptation measures will include the following activities to make sure gender issues are properly addressed in the project: (i) Gender-Sensitive Vulnerability Analysis: Vulnerability assessments – with a particular focus on gender – will be carried out at the regional, community and household levels. This analysis will identify gender differences and gaps, as well as point to causal drivers. This process will generate actionable findings be useful for project staff, local partners and government counterparts engaged in data collection, project design and policymaking. (ii) Gender Sensitive Project Design: Gender disaggregated data on risk and vulnerability will be utilized in the project design. Participatory methods and gender-sensitive sampling strategies will be used to elicit input from community members (women and men) in pilot project design. Men and women will be consulted separately. Field assessment and planning teams will include female interviewers. Pilot projects will include gender-sensitive objectives, targeting strategies, outputs and indicators. (iii) Building Capacity to understand and respond to the unique needs of women and men: The project team will identify practical organizational measures to support integration of gender into analysis, pilot program design, evaluation research, and post-project use of project results. Moreover, given the current limited knowledge and awareness about gender issues in the prioritized areas, a gender-focused training program will be conducted. (iv) Gender-Responsive Monitoring and Evaluation Systems and Instruments: To ensure that lessons learned are internalized by partners and disseminated, a robust M&E system will be implemented. The system will employ a mixed-method approach utilizing both quantitative indicators and participatory methods to capture gender differences in exposure to hazards and resilience. The M&E system will assess how the pilot projects will impact men and women differently, as well as household and community gender relations.

### **B.3. Explain how cost-effectiveness is reflected in the project design:**

30. The project activities seek to increase the hydrological regulation capacity of vulnerable high mountain ecosystems (páramos) at the lowest cost (primarily through sustainable and water efficient land-use practices), compared with alternative engineering solutions for supplying water to the affected populations during dry periods or within increasing water scarcity as per likely climate change scenarios.

31. To maximize the benefits of hydrological regulation through ecosystem restoration and re-vegetation activities, a hydrological model will be used to identify water hotspots; that is, the potential areas for restoration and re-vegetation that will achieve the greatest improvement of water regulation in the selected micro-watersheds within the project's prioritized hydrological units. As a result, the locations for restoration and re-vegetation activities will be the most cost-effective. In addition, the preferred approach for restoration of the ecosystem will be to fence off the areas to allow their natural regeneration, thus achieving the desired result at the lowest cost. If this option is not suitable because of the biophysical and ecological conditions of the degraded areas, seeding and planting systems will be implemented using only the necessary native pioneer species that trigger natural regeneration. The re-vegetation activities will also include low-cost local species that provide economic benefits to

the families through local production systems (such as pasture land for cattle ranching) or fruit trees to complement cash crops.

32. Adaptation activities to improve management of local production systems will be designed so that benefits, such as a projected increase in productivity during the dry months, outweigh the cost of their implementation. Specifically, adaptation activities for cattle-ranching systems will focus on the establishment of varieties of pasture land, grazing areas and silvopastoral systems that perform well even under dry conditions, thereby improving milk productivity. In terms of the potato crop, the main issue related to climate concerns extremely low morning temperatures (frost) that adversely affect crop growth. The project's activities will focus on fostering the use of potato varieties and seed production that are resistant to extremely cold temperatures in the mornings without compromising productivity. The proposed changes in the productive systems will have the following two effects: a) a net increase in family income, internalizing the proposed management costs; and b) a net gain in terms of more efficient water use within the micro-watershed.

33. An evaluation performed in the Páramo de Guerrero area showed that the economic benefits stemming from the use of adaptation measures outweighed the implementation costs. The contingent valuation method was used by Wattenbach (2004) to calculate the willingness to pay for a continuous water supply in dry seasons for beneficiaries of Río Guandoque rural aqueduct (Sucuneta). Extrapolating the results of US\$2.05 per family per month to the project sites (i.e., micro-watersheds) and direct beneficiaries (22,088 families) of the adaptation measures to be implemented, the total net present value for a 20-year period amounts to US\$4.05 million. Because the total cost for implementing the adaptation measures is US\$2.26 million, the economic benefits derived are greater than the cost to implement the measures. This result, benefits greater than costs, remains even under the hypothesis that benefits accrue only for 10 years, in which case the total present value of the benefits amounts to US\$3.06 million. This figure does not consider the indirect beneficiaries of these measures, i.e., the water users living in the metropolitan area of Bogotá D.C. Benefits far outweigh the cost of implementing the proposed adaptation measures.

34. Finally, Component 1 activities, related to knowledge and information production, such as downscaled climate change scenarios and vulnerability analyses, will be based on the adjustment of existing or projected studies, thus minimizing costs for developing maps (remote sensing imaging) and gathering data.

### **C. DESCRIBE THE BUDGETED M & E PLAN:**

35. The project's Monitoring and Evaluation Plan is the tool to measure progress in achieving outputs, outcomes and the overall project objectives based on the Result Framework presented in Annex A. It is also an instrument to assess progress toward achieving the outputs and outcomes established at the portfolio level under the SCCF/GEF results framework presented in Section A of Part I of this document. Monitoring activities seek to measure progress of processes and the completion of project milestones with regard to outputs, while the impact evaluation will focus on assessing the achievement of results and overall project objectives. All monitoring and evaluation will be conducted in accordance with the guidance and procedures of the Inter-American Development Bank (IADB) and SCCF/GEF.

36. Monitoring and evaluation at the project level will be the responsibility of the National Project Coordinator, with support from the entire technical team. The Project Steering Committee (PSC, described in Part III) will review and endorse the M&E documents to be submitted to IADB and to the SCCF/GEF. Annual reports, as well as Mid-Term and Final Evaluations (including lessons learned and good practices), will be reviewed by PSC, submitted to IADB and to SCCF/GEF, and disseminated among participating organizations and relevant stakeholders including GEF focal point in Colombia.

37. The overall cost of project monitoring and evaluation is estimated to be US\$537,000 (see table below), from

which US\$490,000 will be covered by the project. The difference between these two amounts will come from IADB agency-fee, and will be used for supervision visits and the first inception workshop. Project resources targeted to monitoring and evaluation include: (i) external evaluations, (ii) design of the monitoring and evaluation system, (iii) knowledge sharing activities including workshops and tools to disseminate project's results and evaluations, (iv) acquisition and installation of field monitoring stations, (v) operation, maintenance and reporting of monitoring system and (vi) financial monitoring and audit; and activities aimed at replicating project results. Dissemination of project progress is part of the estimated communication and information plan, and is considered in the budget table presented below. An external financial audit will be performed each year by a firm that conforms to IADB's standards. Such firm will be contracted by the Executing Agency and paid by the project.

<b>Type of M&amp;E Activity</b>	<b>Responsible Parties</b>	<b>Budget (USD)</b> <i>(does not include staff time)</i>	<b>Budget source</b>	<b>Time Frame</b>
Inception Workshop (IW)	▪ Project Team	5,000	IDB-Agency fee	Within first two months of project start-up
Mid-term External Evaluation	▪ Project Team ▪ External Consultants	35,000	Project, M&E system under component 2	At midpoint of project implementation
Consultancy for the design of the monitoring and evaluation system	▪ Executing Agency	20,000	Project, M&E system under component 2	During the first year of project execution
Final External Evaluation	▪ Project Team ▪ External Consultants	35,000	Project, M&E system under component 2	At end of project implementation
Visits to Field Sites (including IADB staff travel costs)	▪ IADB staff ▪ GoC	42,000 (8,400/yr)	IDB-Agency fee	Yearly
Workshops to inform stakeholders about project progress	▪ Executing Agency	10,000 (2,000/yr)	Project, M&E system under component 2	Semiannual and annual
Knowledge sharing including tools for results visualization and publication of monitoring and evaluation reports	▪ Executing Agency	15,000	Project, M&E system under component 2	At midpoint and end of project implementation
Installation of field monitoring and evaluation system	▪ Executing Agency	80,000	Project, M&E system under component 2	During the second year of project execution
Equipment and accessories for monitoring	▪ Executing Agency	80,000	Project, M&E system under component 2	During the second year of project execution
Operation, maintenance and reporting of monitoring system	▪ Executing Agency	150,000	Project, M&E system under component 2	During project execution
Financial Audit	▪ Executing Agency	65,000 (13,000/year)	Project, M&E system under component 2	Yearly, following IADB finance regulations and rules
<b>TOTAL INDICATIVE COST</b>		<b>537,000</b>		

## **Project Monitoring and Evaluation**

38. The M&E plan at the project level is based on the Focal Area Strategy Framework (Part I, Section A) as reflected in the Results Framework detailed in Annex A. A preliminary baseline has been defined, and it will be refined and validated during the first year of implementation. At the simplest level, progress will be measured against the project's time-line (chronogram) of activities to be detailed in the annual work plan (AWP) during the first three months of project implementation.

39. During implementation de GEF Operational Focal Point, housed in MADS, will be informed on this M&E activities. Also, the GEF Operational Focal Point will be informed of mid-term reviews and end of project evaluations and will be brief at the start and end of evaluation missions. He/she will receive a draft report for comments, will be invited to contribute to thye management response and will receive the final evaluation report within twelve monthsof project completion.

### ***Project Monitoring***

40. The project's monitoring process entails a continued follow-up of project's activities and the regular assessment of output indicators and their milestones. This process will produce semiannual progress reports to IADB and the PSC and annual meetings and reports to inform stakeholders about the level of implementation.

41. *Semiannual Monitoring:* CI, on behalf of the Ministry of Environment and Sustainability, MADS, will submit semiannual financial and technical reports, based on IADB's reporting policies. The Project Monitoring Report (PMR), IADB's main tool for monitoring, will be updated semiannually to track the project's progress toward achieving the results indicated in the Results Framework. Additional supervision may entail missions to the intervention areas, and meetings with project partners and other relevant stakeholders. Nonetheless, the Executing Agency will be in charge of informing MADS (presiding over the PSC) and IADB about problems or delays in project implementation, so that appropriate measures can be adopted and timely support can be provided to overcome any challenges or difficulties.

42. *Annual Monitoring:* The executing agency, through CI will also develop an AWP during the first month of the year, and submit it to MADS and IADB for review and approval. Project progress will be examined at least once a year by all parties involved in execution and implementation. Project Implementation Reports (PIRs) will be submitted annually to the SCCF/GEF and will be prepared based on SCCF/GEF Annual Monitoring Review guidelines. PIRs will be prepared by CI, and will be reviewed by PSC and submitted to the SCCF/GEF by the IADB.

### ***Performance evaluation***

43. The project will have two performance evaluations: the mid-term and final evaluation. The Mid-term Evaluation will be conducted when 40 percent of the SCCF resources are disbursed or when the first 2.5 years of project execution have been completed, whichever comes first. It will assess progress toward achieving results; stakeholder participation, and changes in beneficiaries' practices associated with the intervention. It will also identify necessary changes to be made as well as future challenges. This report will ascertain if project objectives are in the process of being met by current implementation strategies, based on project design, execution and project coordination. The report will include: a) a general assessment of project progress and the achievement of the indicators identified in the Results Framework; b) a critical assessment of project administration, coordination and execution; c) the effectiveness of project and individual component design; and d) anecdotal accounts of the perception and engagement of stakeholders (community, private sector and other stakeholders) regarding the intervention. This report will be geared toward improving project implementation based on information to date.

44. An independent external Final Evaluation will be conducted three months prior to the last meeting of the PSC and will focus on the same areas analyzed in the Mid-term Evaluation. In addition, the Final Evaluation will also analyze the project's overall impact and results as well as their sustainability and replicability, including their contribution to national and local capacity-building efforts and to global environmental goals.

### ***Impact evaluation***

45. To assess the project's impact, an assessment (participant vs. nonparticipant) will compare changes in the four micro-watersheds in the project's prioritized hydrological units of analysis against the no-action alternative (i.e., three reference or control micro-watersheds), with particular emphasis on the impacts of vegetation and improved engineering in critical water supply areas, and the adoption of climate-resilient management practices and implementation of adaptation measures in local production systems. To assess the effectiveness of the adaptation measures, the monitoring system will collect and analyze time-series data on land cover, land use, meteorology and hydrology in the prioritized micro-watersheds to assess the impacts of the adaptation measures on the hydrologic response of the micro-watersheds over time. Concurrently, the project will monitor the same information in the reference micro-watersheds to perform a cross-cutting analysis of the impact on the hydrologic response, comparing the reference watersheds to the intervened watersheds in each of the prioritized areas. Lessons learned regarding the assessment of changes in water yields in the prioritized areas, as well as the socioeconomic benefits (differentiated by gender and vulnerable groups), will be recorded and disseminated beyond the project's intervention areas, if applicable.

### **Monitoring and Evaluation: the global adaptation perspective**

46. SCCF/GEF has defined that its portfolio should contribute to: a) Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level; b) Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level; and, c) Promote transfer and adoption of adaptation technology. The Project is classified as a vulnerability reduction operation with partial contributions towards increased adaptive capacity and adoption of adaptation technology in rural areas in high mountain ecosystems. Monitoring and evaluation of the projects contributions to these objectives will be conducted through the Adaptation Monitoring and Assessment Tool, AMAT, developed by SCCF/GEF. The AMAT-format-tables have been completed and submitted with the present document and will be revised two more times during the life of the project (e.g. at project midterm review and at project final review).

47. A revisited version will be generated during the first year of project implementation including refined and validated baselines and, if necessary, with some minor adjustments to the proposed targets. At the mid-term review the AMAT will be conducted again to assess the project's contribution to reducing vulnerability at the local level, within the pilot micro-watersheds, and externally to the urban water supplies fed by the micro-watersheds. The analysis of the AMAT information will inform on progress to date in achieving the set targets as well as guide the required adjustment in the implementation strategy, if any, required for successful completion. The mid-term review provides the opportunity for the examination of the implementation strategy and the best options to achieved the project targets.

48. At the end of project execution the AMAT will conducted again with the results of the corresponding surveys and assessments. Lessons learned will be compiled and discussed with the PSC prior to dissemination to a wider public.

### ***Exchange of knowledge and lessons learned***

49. During the final phase of the project, results will be disseminated beyond the intervention areas. The dissemination strategy will rely on different tools such as workshops, scientific networks and existing forums to share information and communicate lessons learned through project design and implementation. In addition, other tools such as networks supported by IADB or other GEF implementation agencies will be used, depending on their appropriateness and relevance to the project. The sharing of information with relevant actors, such as international organizations and academic institutions, in order to fill knowledge gaps is one of the most important aspects to which this project can contribute. In order to achieve this goal, lessons learned will be detailed in

semiannual reports, PMRs and PIRs.


### **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 form. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
<b>Carlos Castaño</b>	Vice-minister	MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT	08/23/2011
<b>Alejandra Torres</b>	Chief, Office of International Affairs	MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT	07/09/2013

### **B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Michael Collins, IDB		08/29/13	Walter Vergara / Alfred Grunwaldt	202-231895	wvergara@IADB.org alfredg@IADB.org

## ANNEX A: PROJECT RESULTS FRAMEWORK

### RESULTS FRAMEWORK

<b>Project Objective</b>	<b>To strengthen the hydrological buffering and regulation capacity of the upper watershed of Chingaza–Sumapaz–Guerrero that supplies drinking water to the Bogota metropolitan area and the adjoining rural municipalities</b>		
<b>Outcome/Indicators</b>	<b>Base Level (2012)</b>	<b>Target Level (2018)</b>	<b>Comments</b>
<b>Hydrological buffering and regulation capacity of high mountain ecosystems (páramos and high Andean forests) is maintained or increased under conditions of climate change and variability.</b> <u><b>Indicator O.1</b></u> <i>Percent increase in water yield during dry season, as per calibrated model, due to the adoption of climate change adaptation measures in the prioritized areas.</i>	0%	At least 10% in each prioritized area	<u>Comments:</u> <ul style="list-style-type: none"> <li>– 3 prioritized areas: Guerrero, Chingaza and Sumapaz; three municipalities, 4 micro-watersheds</li> <li>– Dry season refers to the months of DJFM</li> <li>– Climate change adaptation measures include re-vegetation, restoration, hydraulic works and climate resilient land-use management practices</li> <li>– Baseline for water yield level will be established during the first 6 months of project implementation.</li> </ul> <u>Means of Verification:</u> <ul style="list-style-type: none"> <li>– Field reports about water yield.</li> <li>– Analytical results from models relating vegetation cover and dry flow conditions.</li> <li>– Monitoring reports assessing the effects of adaptation measures on vegetation land cover.</li> </ul> <u>Assumptions:</u> <ul style="list-style-type: none"> <li>– The variation in water yield due to the project's interventions may not be significant during project execution period, and its benefits may be manifested in the long term.</li> </ul>
<b>Increased awareness of adaptation options and lessons learned from field experience in high mountain ecosystems</b> <u><b>Indicators O.2</b></u> <i>Number of times knowledge produced has been downloaded. Visitors to the websites are classified based on three required responses.</i>	0	≥500	<u>Comments:</u> <ul style="list-style-type: none"> <li>– Knowledge produced includes models, maps, technical/scientific report and booklets.</li> <li>– Technical documents include studies, reports, policy briefs, notes, working papers, abstracts and/or journal articles focused on climate change adaptation.</li> <li>– Visitors are to be classified by main activity, country and type of organization.</li> </ul> <u>Means of verification:</u> <ul style="list-style-type: none"> <li>– Website counters; including counting downloads for each knowledge product.</li> <li>– Websites reports and archives.</li> </ul>



Component	Base (2012)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments
<b>Component 1: Knowledge Management</b>								
<b><u>Outcome Component 1 (O.C.1.1)</u></b> Increased consideration of climate change vulnerability in land use and watershed planning.  <b><u>Outcome Indicator 1 for Outcome #1 Component 1 (I.O.C.1.1)</u></b> Number of land use plans, POTs, POMCAs or Watershed Management Plans, that incorporate climate change considerations (environmental determinants).	0	0	0	1 (1)*	1 (1)	0 (2)	2 (4)	<b><u>Comments:</u></b> – The land-use plans include: a) Land Use Schemes (POTs) for the municipalities of Tausa, Cogua and Guasca; and b) Management and Watershed Plans (POMCAs): Bogotá River and Siecha River. – POT preparation follows “Environmental Determinants” defined by CARS. Based on the availability of vulnerability maps, CARS will direct their use in the definition of POTs and provide technical assistance to those responsible for POT preparation.  <b><u>Means of Verification:</u></b> – Approved land-use plans. – POMCAs adopted by Regional Autonomous Corporations (CARS). Annual municipal budgets.  * Numbers in parenthesis to be funded and executed by partner organizations (co-finance). M&E activities are planned for the monitoring progress by partner organizations.
<b><u>Output indicator 1.1.1</u></b> Area of the Corridor covered by maps indicating the distribution of climate variables under climate change scenarios (expressed in km <sup>2</sup> )	0	0	5,500	0	0	0	5,500	<b><u>Comments:</u></b> – Total corridor area is 5,500 Km <sup>2</sup> – Maps include the analysis of at least two emission paths (medium and high) for: temperatures; precipitation; evapotranspiration; and, relative humidity. – The updated scenario is understood to be the selection of a climate change scenario with the necessary adjustments so that it conforms to the project’s requirements of resolution, precision, and number of variables.  <b><u>Means of Verification:</u></b> – Reports (2) on the assimilation and update of baseline climate change scenarios, supported by the technical and distribution processes. Final report with adopted climate change scenarios (peer reviewed).
<b><u>Output Indicator 1.1.2</u></b> Area of the corridor (in Km <sup>2</sup> ) covered by maps assessing the changes in expected hydrological response of the high Andean ecosystems (analyzed on scales of 1:25,000 or finer)	0	0	5,500	0	0	0	5,500	<b><u>Comments:</u></b> – Total corridor area is 5,500 square Km – High Andean ecosystems are those above 2,600 masl  <b><u>Means of Verification:</u></b> – Project GEODATABASE and publications. – Project technical reports

Component	Base (2012)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments
								– Climate change scenarios available through Internet.
<b>Output Indicator 1.1.3</b> Technical/scientific vulnerability report, prepared and subjected to peer review, assessing the hydrological response of high Andean ecosystem to the changes described in the CC scenarios, and incorporating precipitation, temperature and cloud cover.	0	---	1	---	---	---	1	<b>Comments:</b> – Hydrological response measured in terms of annual and dry month probability distribution functions. – The assessment of vulnerability of water resources consists of four steps: a) Analysis of the climate sensitivity of the high mountain ecosystems in the prioritized areas; b) Development of an empirical water regulation model associated with land cover and range of uncertainty; c) Analysis of the exposure of the high mountain ecosystems to actual and predicted impacts from climate change; and d) Analysis of result. – Peer review process includes comments of at least 2 local and 2 international experts associated with research centers and/or universities  <b>Means of Verification:</b> – Technical /scientific reports and comments from peer experts. – Vulnerability and risk maps and databases.
<b>Output Indicator 1.1.4</b> Number of officials from Ministry of Housing, City or Territory, MADS, EAAB's, rural and municipal water supply systems and regional environmental agencies (CARS) trained in the use of climate change scenarios and vulnerability assessments.	0	0	0	≥50	≥50 (100)*	0 (300)	≥100 (400)	<b>Means of Verification:</b> – Certificates of participation and reports about training events. – Knowledge scores before and after in selected training courses / workshops.  * - Numbers in parenthesis to be funded and executed by partner organizations with co-financed resources.
<b>Component 2: Adoption of adaptation measures to address the impacts of climate variability and change</b>								
<b>Outcome Component 2 (O.C.2)</b> <i>Increased adoption of climate adaptation measures to reduce water vulnerability to climate change in accordance with land-use and watershed planning</i>  <b>Outcome Indicator Component 2.1 (I.O.C.2.1)</b> Number of new proposals for funding received by MADS for developing / implementing adaptation measures from municipal governments and CBOs	0	0	0	2	10	20	32	<b>Comments:</b> – By year 3 MADS will open the possibility of receiving formal proposals for funding the implementation of adaptation measures that provide substantial externalities and are financially viable. – Adaptation measures or climate-resilient management alternatives include re-vegetation, restoration, and the use of climate resilient and water efficient productive practices. – Municipal governments and CBOs with the no-objection of the CARS will be encouraged to submit proposals  <b>Means of Verification:</b> – Documentation requesting the no-objection received by the participating CARS. – Documentation received by MADS

Component	Base (2012)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments
in (a) the Chingaza, Sumapaz, Guerrero corridor, and (b) outside the corridor.								– Reports on proposals received
Output Indicator 2.1.1 Area (hectares [ha]) under restoration of high mountain ecosystems in areas critical for hydrological regulation.	0	0	50	100 (400)*	100 (1500)	0 (2100)	250 (4,000)	<p><u>Comments:</u></p> <ul style="list-style-type: none"> <li>– Areas critical for hydrological regulation according to vulnerability assessments and maps, as well as in the technical report on the hydrologic response to climate change in the corridor.</li> <li>– Ecological restoration is defined as the process of planting a site to a natural landscape and habitat, safe for humans, wildlife, and plant communities Restoration activities include fencing and planting pioneer species to foster natural regeneration, the baseline is 0.</li> </ul> <p><u>Means of Verification:</u></p> <ul style="list-style-type: none"> <li>– Maps of restored/consolidated areas and field reports.</li> <li>– Reports detailing change in the coverage and quality of the restored system.</li> <li>– Signed restoration agreements.</li> </ul> <p>* - Numbers in parenthesis to be executed by partner organizations with co-financed resources.</p>
Output Indicator 2.1.2. Total area (ha) under re-vegetation programs in three critical areas for water supply.	0	0	60	150	90 (98)	0	300 (98)	<p><u>Comments:</u></p> <ul style="list-style-type: none"> <li>– Re-vegetation is understood as the rehabilitation of nonproducing lands with highly altered ecosystem functions.</li> <li>– In the Chingaza-Sumapaz-Guerrero corridor re-vegetation is recommended in nearly 47,000 ha. Water hotspots, or areas critical for water supply will be identified through the vulnerability analysis in Component 1.</li> </ul>
Re-vegetated area (ha) through gender-focused pilot projects in three areas that are critical for water supply.	0	0	20	140	50 (70)	0	210 (70)	<ul style="list-style-type: none"> <li>– Gender focused pilot projects, those in which women make the decisions as to the activities to be executed, will get technical assistance and targeted resources. Planning activities will be gender sensitive.</li> <li>– Socio-economic surveys will collect data by gender and age.</li> </ul> <p><u>Means of Verification:</u></p> <ul style="list-style-type: none"> <li>– Field visits and surveys of restoration plots and GIS-based maps.</li> <li>– Field visits and surveys of engineering works, design plans and GIS-based maps.</li> </ul>

Component	Base (2012)	Year 1	Year 2	Year 3	Year 4	Year 5	Target	Comments
<b>Output Indicator 2.1.3</b> Number of families that incorporate adaption measures or climate-resilient management practices in their production systems and increase their net income.	0	0	20	20 (100)*	20 (100)	0 (100)	60 (300)	<u>Comments:</u> – Adaptation measures or climate-resilient management alternatives include revegetation, restoration, and the use of climate resilient and water efficient productive practices.  <u>Means of Verification:</u> – Maps of restored/consolidated areas and field reports. – Reports detailing change in the coverage and quality of the restored system. – Signed restoration agreements. – Reports of field visits (Years 3 and 5) to farms registered in the project. – Field notes and measurements (Years 3 and 5) in demonstration plots. – Reports and notes of field visits (Years 3 and 5) regarding the adoption of technologies for water regulation in productive systems. – Household survey (Years 1,3 and 5) – See Annex with household survey  * - Numbers in parenthesis to be executed by partner organizations with co-financed resources.
<b>Output Indicator 2.1.4</b> Monitoring and evaluation system (M&E) to track the impacts of adaptation measures in the water cycle deployed.	0	0	0	1	--	--	1	<u>Comments:</u> – Design of the M&E system includes the selection of control areas, where no adaptation measures are implemented; – Climate information network will follow WMO/IDEAM standards and procedures; – Due to the inherent variability of the hydrologic process the impacts of adaptation measures might not be measurable during the project span.  <u>Means of Verification:</u> – Technical report on the design of the M&E system agreed by the PSC; – Report from the PNC to the PSC detailing the plan of action for the deployment of the M&E system; – Progress reports on the execution of the plan of action for the M&E system; – M&E reports for years 3, 4 and 5.

**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Reviewer's comments	Responses
<b>Secretariat Comment at PIF (PFD)/Work Program Inclusion, September 2011.</b>	
<p><i>Is the project framework sound and sufficiently clear?</i></p> <p>Please specify the target areas and municipalities at CEO endorsement stage.</p>	<p>The SCCF funding will focus its efforts on prioritized areas (hydrological units) in the three most important páramo systems within the Corridor: Chingaza, Guerrero and Sumapaz. The process of selecting the prioritized areas is described in a separate document together with IDB operational document. The hydrological units are located within the rural area of Bogotá D.C. and five neighboring municipalities: Tausa, Sesquilé, Guatavita, Cogua and Guasca. The selected hydrological units are: Siga Reservoir, Río Cuevas and Río Chipatá. Specific project activities will be implemented in four micro-watersheds within the hydrological units..</p>
<p><i>Is public participation, including CSOs and indigenous people, taken into consideration, their role identified and addressed properly?</i></p> <p>The CSOs will be identified during project preparation. This is acceptable.</p>	<p>The CSOs were identified during the project preparation phase for each prioritized area/municipality. These include multiple organizations—including women's groups—that address water resources protection, natural resources management, environmental protection, and the support and promotion of production activities, mainly agriculture and livestock. The CSOs that were identified are the following:</p> <ol style="list-style-type: none"> <li><b>1. Tausa-Cogua:</b> Corporación de Productores Campesinos de Tausa–CORPROTAUSA, Asociación Municipal de Usuarios Campesinos de Cogua, Juntas de Acción Comunal, Juntas Administradoras de Acueductos Veredales.</li> <li><b>2. Guasca-Sesquilé-Guatavita:</b> Asociación de Amigos de Guasca, Jardín Colibrí, Agricultura Orgánica–Guasca, Asociación de Lecheros La Concepción–Guasca, Cooperativa de Lecheros de Guatavita–COLEGA, Asociación Láctea entre Sesquilé–Suesca–Guasca–Guatavita, Asociación Potrerolargo Guatavita, Asociación Carbonera Alta Guatavita, Juntas de Acción Comunal, Juntas Administradoras de Acueductos Veredales.</li> <li><b>3. Chizacá:</b> Sindicato Agrario, Asociación de Mujeres Recicladoras, Asociación de Mujeres del Sumapaz, Juntas de Acción Comunal, Juntas Administradoras de Acueductos Veredales.</li> </ol> <p>The CSOs will be instrumental in the implementation of gender-sensitive pilot projects to increase water regulation capacity through re-vegetation and improved engineering in critical water supply areas, and for the adoption of climate-resilient management practices and implementation of adaptation measures in local production systems. The CSOs will also be beneficiaries of training to be delivered by the project for building capacities to implement adaptation measures locally. Moreover, given the current limited knowledge and awareness about gender issues among the CSOs of the prioritized areas, a gender-focused training program will be conducted. Because there are no indigenous groups living in the project area, this issue was not addressed in the project preparation phase.</p>
<p><i>Is the project implementation/execution arrangement adequate?</i></p> <p>Details of the execution arrangements will be defined under project preparation.</p>	<p>Details about the execution arrangement are included in Part II B.1 of this CEO Endorsement Request Document, which includes the project's organizational chart.</p>
<b>LDCF/SCCF Work Program: Comments from Council Members (Reference LDCF/SCCF.11), November 2011</b>	
<b><u>Germany Comments</u></b>	
<p><b>1.</b> Germany recommends feedback to and cooperation with the Direction of Climate Change of the Colombian Ministry of Environment (MADS) in order to support the definition and construction of</p>	<p>The definition and construction of Colombia's National Plan for Adaptation to Climate Change (PNACC) was completed by the time of the final phase of project preparation (the Government of Colombia officially presented the PNACC in August 2012).</p> <p>Nonetheless, the Project has had continuous consultations regarding feedback and cooperation with staff of the MADS Bureau of Climate Change since the project's inception workshop and the results framework workshop. Although the project will not provide direct support for the definition and preparation of the PNACC, it will provide</p>

the National Adaptation Plan of Colombia	valuable knowledge and lessons learned from the implementation of adaptation measures to cope with the consequences of climate change in the water supply and hydrological regulation functions provided by high mountain wetlands and ecosystems. The participation of MADS in the PSC will facilitate the adoption of lessons learned and good practices by MADS, and will be available through its climate change Web portal ( <a href="http://www.cambioclimatico.gov.co">http://www.cambioclimatico.gov.co</a> ).
<p>2. We notice that in Colombia various different initiatives are under way to establish monitoring systems of climate change. Since the system to be designed in the framework of the present project would be limited only to the region we strongly recommend to seek close collaboration with the Direction of Climate Change of the Colombian Environment Ministry in order to streamline the development of this monitoring system with the other ones and thus use project funds more efficiently.</p>	<p>Consultations regarding feedback and cooperation were held with the following groups: a) staff from the MADS Bureau of Climate Change during the project's results framework workshop; and b) Staff from IDEAM that coordinate the SIAC (Sistema de información Ambiental de Colombia), design and operation; c) Staff of the CAR's (regional and distrital environmental authorities), that operates the regional environmental information systems and water and ecosystems monitoring and evaluation plans.</p> <p>Furthermore, the watershed monitoring system will build upon the experience of the GEF funded INAP project, and will follow IDEAM and WMO standards and specifications.</p>
<p>3. We recommend seeking information exchange and considering cooperation with the Ecosystem based Adaptation Solutions Programme implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) after January 2012. As well we recommend cooperation and information exchange with the two regional GIZ programmes "Adaptation to Climate Change in the Andes" and "Trinational Initiatives in National Parks" on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ).</p>	<p>Cooperation and coordination with the various initiatives sponsored by the German Government were initiated during the project's Results Framework workshop. The Project Coordinator of the "Trinational Initiatives in National Parks" project (Diana C. Useche) attended the workshop and the need for establishing cooperation and coordination mechanisms between the GIZ's different initiatives and the SCCF-funded project was discussed. The PSC headed by MADS will serve as focal space for the analysis and articulation with other adaptation to climate change initiatives in the country and neighboring countries with similar programs including GIZ programmes in particular the "Adaptation to climate change in the Andes" and the "Trinational Initiatives in National Parks".</p>
<b><u>USA Comments</u></b>	
<p>1. We assume that the PIF has not identified specific adaptation measures because IADB intends to identify specific measures together with relevant stakeholders. Please confirm that this assumption is correct.</p>	<p>This assumption is correct. Specific adaptation measures were identified and incorporated in the final design of the project, particularly for Project Component 2.</p> <p>Adaptation measures were generically identified together with relevant stakeholders through field visits to the three prioritized sites by the project preparation team and, under more theoretical basis, during the Results Framework workshop. Adaptation measures to increase natural water regulation capacity seek to increase forest cover and to protect paramo formations. In particular, the pragmatic adaptation measures identified include the restoration of 250 ha critical to the water regulation process, (areas with</p>

	<p>secondary vegetation located on the borders of water bodies -riparian vegetation-, areas adjacent to springs or recharge zones, and surrounding areas of woody vegetation at risk of deforestation and/or deterioration). These measures also include re-vegetation of 210 ha and improvement of 156 engineering works (water intakes and micro-reservoirs). Finally, improved management practices of the production systems will be designed to both improve water-demand efficiency during dry periods and simultaneously increase productivity and family incomes. These include the adoption of improved/climate-resistant pastures, improved irrigation techniques, the effective use and management of micro-reservoirs, water channel improvements, and the use of animal water troughs.</p> <p>The adopted field strategy, is to seek agreements with communities and landowners in the selected critical sites, based on vulnerability assessments, participatory community planning and agreements with landowners. The agreed measures should improve forest cover and land use practices that foster infiltration and natural water retention. Only agreed measures will be implemented.</p>
<p>2. In addition, the United States requests that IADB give careful consideration to how it will help translate the climate data and information generated under Component 1, Knowledge Management, so that this information can be understood and actionable by users. How will relevant ministries, counties, and communities receive information about weather and climate for better decision-making? How will the project ensure that the information is driven by the needs of the users and delivered through appropriate channels? Who are the potential knowledge providers and users in Colombia and region?</p>	<p>Mechanisms and strategies to transfer knowledge and information regarding climate change to multiple users (national, regional, and local) were duly considered during the final project design. In particular, the proposed project under component 1 (output 1.1.4, page 17) proposes a communication strategy that will contribute to identify users and uses of information so that data and lessons learned are passed on to project stakeholders in a useful format that will respond to their needs. Moreover, lessons learned from other projects and from GEF funded INAP project in particular (one component was centered in the same geographic area) were studied and applied to the project. Bringing CI Colombia experience with the implementation of adaptation measures in the Chingaza massif is an element of the strategy. The general approach aims at defining for each audience mechanisms and tools suitable to the use they will give to the information.</p> <p>Three main groups are the audience to the project knowledge and information produced: Scientist and professionals working on development and climate change; decision makers and technical personnel in planning bureaus at regional and municipal agencies; and, communities and landowners in the priority selected watersheds. Regarding the first group, scientists and development professionals versed in climate change, the approach is technical and scientific presentations and peer reviewed reports. This approach applies to the baseline investigation, climate change scenarios, vulnerability assessments and the assessment of the economic implication of climate change in the selected sites. This group will also receive direct information regarding the design of the M&amp;E system and the results from the midterm and final performance evaluation.</p> <p>Decision makers and personnel from planning bureaus will be trained in the use of the information produced (climate change scenarios and vulnerability assessments) and its interpretation. Here emphasis will be given to the adequate interpretation and use of the information. Training material will be developed for this audience to be delivered through workshops and followed with technical assistance as required. For selected municipal planning bureaus the project will support and actively participate in the incorporation of climate change considerations in their municipal urban and land use plans.</p> <p>As all adaptation is local, communities and landowners will be the final decision makers for the implementation of specific adaptation measures. Climate change scenarios and vulnerability assessments will be introduced, to this group, through community meetings and workshops. The information will be downscaled to their territory and presented through visual imagines familiar to locals. The selected community based adaptation-planning approach, through the Adaptive Territorial Ecological Structure (EETA for its spelling in Spanish), emphasizes the role of the community as driver of the planning process, as well as key actors for the implementation of the selected adaptation measures in their territory. Given this very active role, communities and landowners will also play a significant part in the implementation and operation of the M&amp;E systems.</p> <p>For other audiences the Project Team will develop instruments and tools according to the audience needs and background.</p>

<b>STAP Scientific and Technical screening of the Project Identification Form (PIF), date of screening: February 2nd, 2010.</b>	
N/A	



**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS**

A. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

**No GEF funded PPG was used during Project Preparation.**

B. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF:			
<i><b>Project Preparation Activities Implemented</b></i>	<i><b>GEF/LDCF/SCCF/NPIF Amount (\$)</b></i>		
	<i><b>Budgeted Amount</b></i>	<i><b>Amount Spent To date</b></i>	<i><b>Amount Committed</b></i>
<b>Total</b>	0	0	0

**ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A