



GEF

REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

THE GEF TRUST FUND

Submission Date: November 11, 2010

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3266

GEF AGENCY PROJECT ID: 609364

COUNTRY(IES): Ecuador

PROJECT TITLE: Management of Chimborazo's Natural Resources

GEF AGENCY(IES): FAO

OTHER EXECUTING PARTNER(S): Chimborazo Provincial Council (CHPC); Ministry of Environment

GEF FOCAL AREA(s): Biodiversity

GEF-4 STRATEGIC PROGRAM(s): BD SP-4 and BD SP-5

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N/A

Expected Calendar (mm/dd/yy)	
Milestones	Dates
Work Program (for FSPs only)	Nov 2007
Agency Approval date	Nov 2010
Implementation Start	Feb 2011
Mid-term Evaluation (if planned)	July 2013
Project Closing Date	Jan 2017

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: to conserve and sustainably manage the Chimborazo's páramos and the biodiversity of the mountain ecosystems and to improve local livelihoods through strengthening of necessary policy, legal and institutional frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resource management								
Project Components	Investment, TA, or STA	Expected Outcomes	Expected Outputs	GEF Financing		Co-Financing		Total c=a+ b
				a	%	b	%	
1. Conserving the páramos and related highland ecosystems	TA, Investments	58,000 ha of páramo and its areas of influence under threat ¹ in the Chimborazo Province under improved natural resource management (NRM) (sustainable agricultural practices, local Compensation for Environmental services (CES) systems, and reforestation with native species) ² . Coverage through natural regeneration and/or reforestation with native species along watercourses is increased by 20% in the project intervention area. At least 30 Communities and/or indigenous organizations adopting	At least 3 micro-watershed management plans completed for the selected project sites based on needs assessments, participatory land use planning, zoning and priority setting processes 100 % of actions given high priority in the management plans implemented At least 30 community and/or indigenous organizations trained in sustainable land use planning and NRM practices. At least 30% of the cultivated surface of the micro watershed covered by the project benefit from improved irrigation systems managed by the users under criteria of efficiency, equity and sustainability in the use of water resources Compensation value	2,344,820	33	4,775,000	67	7,119,820

¹ Areas under threat refer to specific sited selected within the Chambo and Chanchán watersheds, not included in the Chimborazo Reserve, holding important extensions of páramos, but under strong pressure and threat due to agricultural frontier expansion and over-grazing.

² Biological impact indicators will also be established and monitored in the implementation of each Micro-watershed management plan. These indicators may included: increase or at least maintenance in water flow in relation to rainfall in the mid and lower part of the watershed, decrease in number of none-camelid livestock grassing in the páramos, reduction in agriculture encroachment on the páramos.

		<p>conservation practices (substituting non camelid livestock with llamas and alpacas grassing in the páramos; protection of slopes and areas around headwaters below the páramos, soil conservation and water harvesting measures; conservation and use of local agro-biodiversity to increase food sovereignty and the use of conservation agricultural practices) improving their economic situation based on participatory watershed management plans and CES schemes</p>	<p>assessment of conservation services of headwaters provided by mountain communities managing the ecosystems of the upper parts of the micro-watersheds including the páramos</p> <p>Analysis of options for water users (irrigation association, hydroelectric power plants) compensation schemes and CES mechanism designed including criteria for eligibility of beneficiary communities, contract conditions, and means of verification of compliance with conservation services</p> <p>At least 2 pilot CES contracts prepared and in initial implementation</p>						
2. Priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo	TA, Investments, and STA	<p>56,000 ha of the Chimborazo Reserve with improved management effectiveness (from 40% to 70% by the end of the project using the GEF SP1 Tracking Tool).</p> <p>Agriculture encroachment of the páramos in the Chimborazo Reserve and grassing of non-camelid livestock in the páramos located in the Reserve stopped by the end of the project.</p> <p>The number of native grass species maintained or improved in the Chimborazo Reserve and its buffer zone (85 species in 2009)</p> <p>Biomass (photosynthetic and non photosynthetic) and necromass per m² maintained or increased in the Chimborazo Reserve and its buffer zone by the end of the project (baseline to be established in representative m² samples in year 1)</p> <p>Vicuña fibers and tourist products and services generating at least USD100,000/year in total income for the local communities and for the conservation of the Reserve by the end of the project</p>	<p>National Management Plan for Vicuña elaborated and presented to the parties of the Convention for the Conservation and Management of the Vicuña under CITES</p> <p>Infrastructure and equipment prioritized in the management plan of the Chimborazo Fauna Reserve constructed (small visitor centre and administrative office, rehabilitation of main trails in the Reserve)</p> <p>Studies of the Chimborazo Reserve and its buffer zone to lay the ground for the elaboration of co-management plans with the local communities including a complete mapping of vegetation cover and land use and ownership and an evaluation of biophysical and ecosystem capacities (carrying capacities of vicuñas and other camelids, flora y fauna to identify threatened species, and areas with forest vocation).</p> <p>Development and implementation of co-management plans involving at least 10 local communities in conservation and sustainable use of the natural resources in the Chimborazo Reserve and its buffer zone including: sustainable grassing schemes (substituting cattle and sheep livestock with camelids in the páramos); land use zoning and use regulations; conservation of headwaters; inclusion of local communities in surveillance of resources and provision of tourism services.</p>	719,000	52	667,600	48	1,386,600	

			Program operating for the development of local capacities, provision of equipment and implementation of capture, shearing, processing and marketing of the vicuña fibers from at least 500 vicuñas based on sustainable management of the specie and in accordance with the CITES convention generating economic benefits.					
3. Capacity Building of the Chimborazo Provincial Council for Sustainable Natural Resources Management with focus on the páramos	TA	Provincial Government capable of supervising and promoting the sustainable management of natural resources and biodiversity conservation in the Province (4 provincial NR and biodiversity conservation norms approved and applied by 90% of the local communities involved in the project; NR monitoring systems operational for three selected project sites and the monitoring information generated is systematically used to plan supervision activities and community awareness raising and capacity building)	At least 20 CHPC and local organization staff have benefited directly from Capacity building/training program in methodologies and instruments for development and sustainable NRM using a watershed approach. CHCP strengthening in their capacity to develop Policy and regulations on NRM considering biodiversity conservation for the Province of Chimborazo. At least four provincial ordinances or appropriate instruments considering biodiversity conservation in key sectors (Protection of water springs, forestry, tourism and management of camelids) developed, issued and enforced based on the micro-watershed management plans zoning and use regulations for the selected project sites. NRM monitoring system designed by the end of year 2 and operating for the project sites by the end of year 4	423,080	65	229	35	652,080
Project management				383,100	33	770,000	67	1,153,100
Total Project Costs				3,870,000		6,441,600		10,311,600

¹ List the \$ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

² TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT (expand the table line items as necessary)

<i>Name of Co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>%*</i>
World Bank PIDF	Multilat. Agency	Soft Loan	3,200,000	50%
Provincial Government of Chimborazo	Local Gov't	In-kind	791,000	12%
Provincial Government of Chimborazo	Local Gov't	Cash	1,439,000	22%
Ecociencia	NGO	In-kind	100,000	2%
Ministry of Environment	Nat'l Gov't	In-kind	274,600	4%
Ministry of Environment	Nat'l Gov't	Cash	387,000	6%
COMICH	NGO	In-kind	150,000	2%
Local beneficiaries	Beneficiaries	In-kind	37,000	1%
Local beneficiaries	Beneficiaries	Cash	63,000	1%
Total Co-financing			6,441,600	100%

* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

C. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	<i>Project Preparation a</i>	<i>Project b</i>	<i>Total c = a + b</i>	<i>Agency Fee</i>	<i>For comparison: GEF and Co- financing at PIF</i>
GEF financing	100,000*	3,870,000	3,970,000	397,000	4,000,000
Co-financing	200,000**	6,441,600	6,641,600		7,500,000
Total	300,000	10,311,600	10,611,600	397,000	11,500,000

* The PPG has been implemented by the World Bank and the fee for the PPG has likewise been transferred to the World Bank. Only the fee from the project (USD 387,000) will be transferred to FAO.

** To be confirmed by the World Bank in their report back on the expenditure of PPG resources

D. GEF RESOURCES REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES)¹ N/A**E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

<i>Component</i>	<i>Estimated person months</i>	<i>GEF amount(\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	302	472,400	487,000	959,400
International consultants*	7	52,500	0	52,500
Total	309	524,900	487,000	1,011,900

* DETAILS PROVIDED IN ANNEX C.

F. PROJECT MANAGEMENT BUDGET/COST

<i>Cost Items</i>	<i>Total Estimated person months</i>	<i>GEF amount (\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	438	242,000	686,000	928,000
International consultants*	0	0	0	0
Office facilities, equipment, vehicles and communications*		60,000	84,000	144,000
Travel*		55,000		55,000
Others**		26,100		26,100
Total		383,100	770,000	1,153,100

* Details provided in Annex C.

** Design and implementation of web based project monitoring system including management of organizational performance (scorecard) and required software.

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? yes ☐ no ☒

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your agency and to the GEF Trust Fund).

H. DESCRIBE THE BUDGETED M & E PLAN:

Monitoring and evaluation of progress in achieving project results and objectives will be done based on the targets and output and outcome indicators established in the Project Results Framework (Annex 1). The project's M&E system will be put in place during the first 6 months of project implementation and will feed back into project implementation. This system will be housed within CHPC's Directorate of Planning, which carries out the M&E functions for CHPC. Technical assistance for the design and administration of the project M&E system, training, and procurement of equipment to administrate the information system will be provided.

The M&E system will be structured in a way that combines traditional on-going monitoring of project activities, external/participatory impact evaluations and social accountability mechanisms (veedurías ciudadanas). The monitoring and evaluation system will also facilitate learning and generation of knowledge necessary for the replication of highland ecosystem and biodiversity conservation approaches including CES mechanism in other4

micro-watersheds in the Province and in the Andean region. The project Monitoring and Evaluation Plan has been budgeted at USD 189 100.

Beside the project monitoring and evaluation system, a natural resource management monitoring system will be designed and implemented in at least 3 sub-project sites to monitor on-the-ground impacts of conservation practices on the status of biodiversity and natural resources as part of component 3 budgeted at USD 225 500. Monitoring of compliance and service delivery within CES mechanisms will be conducted within each mechanism by means appropriate to the situation, which may rely on the broader M&E of NRM in the province, or may be through specific local arrangements. CES mechanisms rely on monitoring of land-user compliance with their conservation contracts, as payments are conditional, and on monitoring of service delivery (usually by the service users themselves), as payments by service users are also conditional on their receiving the desired services. Appropriate M&E arrangements will be developed as part of the design process for each pilot CES mechanism as part of component 1 budgeted at USD 130 000. Both the natural resource management monitoring system and the M&E arrangement for the CES mechanism will feed data into the project M&E system.

Indicators

The project indicators are selected to both capture progress in capacity building in biodiversity conservation, land use planning and NRM and on-the-ground impacts of conservation measures and management practices. Progress in capacity building will be monitored via process and institutional indicators capturing tools developed (monitoring system of natural resource management; micro-watershed management plans; CES contracts signed and under implementation; Chimborazo Reserve studies and co-management plans; vicuña management plan, and provincial NR conservation ordinances or other appropriate legal instruments) and levels of created capacities (communities with operating watershed management committees; communities trained in land use planning and NRM and adopting conservation practices; CHPC and local organization staff trained in policies, regulations, methodologies and instruments for development and sustainable management of natural resources using a watershed approach).

On-the-ground impact indicators will capture socioeconomic aspects (increased income generated from vicuña fibres and tourist products and services for the local communities; and increase in food sovereignty in communities involved in sub-projects) as well as decrease in threats on biodiversity and highland ecosystems (ha of páramo and its areas of influence under threat in the Chimborazo Province under improved NRM; ha of the Chimborazo Reserve with improved management effectiveness measured by the GEF SP1 Tracking Tool; biomass (photosynthetic and non photosynthetic) and necromass per m² in the Chimborazo Reserve and its buffer zone; the number of native grass species in the Chimborazo Reserve and its buffer zone and encroachment rate of the páramos in the Chimborazo Reserve and grassing of non-camelid livestock in the páramos). With the participation of local communities, a baseline will be established in the case of each sub-project to allow for the monitoring of these indicators and other on-the-ground impact indicators adequate for each conservation intervention. This monitoring will be supported by the natural resource management monitoring system.

Evaluations

An independent mid-term evaluation will be undertaken at the beginning of the third year of project implementation. The evaluation will determine progress being made towards achievement of objectives, outcomes, and outputs, and will identify corrective actions if necessary. It will, *inter alia*:

- a) review the effectiveness, efficiency and timeliness of project implementation;
- b) analyze effectiveness of implementation and partnership arrangements;
- c) identify issues requiring decisions and remedial actions;
- d) identify lessons learned about project design, implementation and management;
- e) highlight technical achievements and lessons learned; and
- f) propose any mid-course corrections and/or adjustments to the implementation strategy as necessary.

An independent final evaluation will take place three months prior to the terminal review meeting of the project partners and will focus on point d and e listed above. In addition, the final evaluation will review project impact, analyze sustainability of results and whether the project has achieved its environmental and development objectives. The evaluation will furthermore provide recommendations for follow-up actions. Some critical issues to be emphasized in both the mid-term and the final evaluations will be:

- i. representation and the level of participation of female as well as male farmers in watershed planning processes and the implementation of sub-projects for conservation practices;
- ii. level of understanding among local communities of the services provided by the highland ecosystems including the páramos and measures and practices for the conservation of these services;
- iii. quantity of communities involved in highland ecosystem conservation and their adoption of biodiversity and NR conservation technologies and practices, and improvements in their food sovereignty and income generation;
- iv. reduction in encroachment on the Chimborazo Reserve and grassing of non-camelids livestock;
- v. level of awareness and involvement of local communities in co-management activities of the Reserve;
- vi. sustainability of the management and business approach to commercializing vicuña fibre and tourist products and services and the level of income generated;
- vii. level of strengthened NRM capacities in the CHPC;
- viii. level of application of NR conservation ordinances in beneficiary communities; and
- ix. implementation of the natural resource monitoring system and how the generated information is used by the CHPC to strengthen NRM in the province.

Draft Terms of Reference (TOR) for the Mid-term and Final Evaluation will be prepared by CHPC and finalized in close consultation with the FAO Project Task Manager in the FAO representation in Ecuador, the FAO LTU, the GEF Coordination, and under the ultimate responsibility of the FAO Office of Evaluation, in accordance with FAO evaluation procedures and taking into consideration evolving guidance from the GEF Evaluation Office.

Monitoring Responsibilities and Information Sources

Monitoring of project progress and outcomes will be a central function of the CHPC Project Technical Team lead by the Project Coordinator and will be supported at the country level by the FAO Project Task Manager. Specific monitoring tasks will be defined in the Annual Work Plan (AWP).

Indigenous and local communities will also be involved in the monitoring and evaluation process. Various processes are used to actively engage community members in monitoring and evaluating the impacts on the conservation of natural resources and highland ecosystems within each micro-watershed. The communities will be involved in the identification of indicators to monitor the progress in implementation of watershed management plans and collection of base line and periodic monitoring of impact indicators on biodiversity and NR conservation adjusted to the specific conservation practices and threats identified in each watershed during the planning process.

Monitoring information sources will be evidence of outputs (reports, watershed management plans and Chimborazo Reserve co-management plans, lists of participants in participatory planning and training activities, CES contracts, provincial NR conservation ordinances etc.). To assess and confirm the congruence of outcomes with project objectives, physical inspection and/or surveying of activity sites and participants will be carried out. This latter task will be undertaken by the CHPC Project Technical Team supported by the FAO Project Task Manager. Under the guidance of the Project Technical Team and with participation local of communities' collection of baseline data₆

will be carried out and compiled into a base document for each sub-project in accordance with the indicators established to monitor on-the-ground impacts of conservation practices being applied. By the end of each sub-project data to monitor the development in the performance and impact indicators will be collected by local communities supported by project staff. However, in some cases it will only be possible to evaluate on-the-ground impacts 1-3 years after project termination.

Reporting Schedule

Specific reports that will be prepared under the M&E program are: (i) project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) quarterly project implementation reports (QPIRs); (v) annual project implementation review (PIR); (vi) technical reports; (vii) co-financing reports; and (viii) terminal report.

Project Inception Report:

After FAO approval of the project and signature of the Execution Agreement an inception workshop will be held. Immediately after the workshop, CHPC will prepare a project inception report in consultation with the FAO Project Task Manager and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed First Year Annual Work Plan and Budget (AWP/B) and a plan with all monitoring and supervision requirements. The draft report will be circulated to FAO and the Project Directive Committee for review and comments before its finalization.

Annual Work Plan and Budget (AWP/B):

CHPC PTT will submit to the FAO Representation in Ecuador an Annual Work Plan and Budget which will be divided into monthly timeframes detailing the activities and progress indicators that would guide implementation during the year of the Project. As part of the AWP/B, a detailed project budget for the activities to be implemented during the year should be included together with all monitoring and supervision activities required during the year.

Project Progress Reports

CHPC PTT will submit to the FAO representation in Ecuador Project Progress Reports which are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the project Results Framework. The FAO Project Task Manager will review the progress reports and submit them to the Lead Technical Unit (LTU) for approval and subsequently to the GEF Coordination for information.

The yearly project progress reporting cycle consists in:

1. A simple 1-2 page first quarter progress report covering the period from 1 January – 31 March and to be submitted no later than 30 April
2. An 8-12 page six monthly progress reports covering the period 1 January – 30 June and to be submitted no later than 31 July
3. A simple 1-2 page third quarter progress report covering the period from 1 July – 30 September and to be submitted no later than 31 October
4. A detailed end of the year progress report covering the period 1 January - 31 December and to be submitted no later than 31 January. This report should accompany the following year's draft annual work plan and budget (AWP/B), for review and no-objection by FAO. This will be done no later than the end of February. The annual PPR will serve as the main input to the Project Implementation Review (PIR) to be prepared by the LTU supported by the FAO Project Task Manager.

Quarterly Project Implementation Reports

The FAO Project Task Manager, with inputs from CHPC Project Progress Reports and supervision activities will⁷

prepare quarterly reports which entail regular review of the project to compare approved work plans with actual performance, and to take corrective action as required.

Project Implementation Review

The LTU supported by the FAO Project Task Manager, with inputs from CHPC/PTT, will prepare an annual Project Implementation Review (PIR). The PIR will be submitted to the GEF Coordination in TCI for review and approval. The GEF Coordination will submit the final report to the GEF Secretariat and Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio.

Technical Reports

Technical reports will be prepared to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by CHPC/PTT to the FAO Representation in Ecuador who will share it with the LTU and the GEF Coordination for review and clearance, prior to finalization and publication. Copies of the technical reports will be distributed to the Project Directive Committee and other project partners as appropriate. These will also be posted on the FAO FPMIS.

Co-financing Reports

CHPC will be responsible for collecting the required information and reporting on in-kind co-financing provided by CHPC, MEA, local NGOs, the PIDD/WB Programme and local beneficiaries. CHPC will provide the information in a timely manner and will transmit such information to FAO. The report is to be considered as part of the annual PPR in the year the mid-term evaluation takes place and again as part of the annual PPR in the final project year.

Terminal Report

Within two months of the project completion date CHPC will submit to FAO a draft Terminal Report, including a list of outputs detailing the activities taken under the Project, "lessons learned" and any recommendations to improve the efficiency of similar activities in the future. This report will specifically include the findings of the final evaluation as described above. A final project review meeting is expected to take place mid 2015.

Monitoring and Evaluation Plan Summary

Table 2 below provides a summary of the main M&E reports, responsible parties and timeframe.

Type of M&E activity	Responsible Parties	Time-frame
Inception Workshop	CHPC/PTT, FAO Project Task Manager, LTU, GEF Coordination (TCI), FAO Representation Ecuador	Within two months of project start up
Project Inception Report	CHPC/PTT, FAO Project Task Manager, LTU, GEF Coordination (TCI)	Immediately after workshop
Field based impact monitoring	CHPC/PTT, local beneficiary communities, farmers	Continually
Quarterly Project Implementation Reports - QPIR	FAO Project Task Manager with inputs from CHPC PMU	Quarterly
Project Progress Reports - PPRs	CHPC/PTT	Quarterly, semi annual and annual (see above)
Project Implementation Review - PIR	LTU, FAO Project Task Manager	Annual
Cofinancing Reports	CHPC/PTT	At mid-term and at end of project based on annual tracking of co-financing execution

Type of M&E activity	Responsible Parties	Time-frame
Steering Committee Meetings		Twice a year
Technical reports	CHPC/PTT, FAO Project Task Manager, LTU	as appropriate
Supervisory visits to project and field sites	FAO Project Task Manager, LTU	Yearly or as required
Mid-term evaluation	CHPC/PTT, FAO Project Task Manager, LTU in consultation with the project team and other partners	At mid-point of project implementation
Final evaluation	External Consultant, FAO independent evaluation unit in consultation with the project team and other partners	At the end of project implementation
Terminal Report	CHPC/PTT, LTU, FAO Project Task Manager	At least one month before end of project

PART II: PROJECT JUSTIFICATION:

A. STATE THE ISSUE, HOW THEY WILL BE ADDRESS, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS:

Ecuador is one of the world's "megadiverse" countries, thanks to the extraordinary variety of ecosystems and species that co-exist in a relatively small territory. In terms of biological diversity, Ecuador ranks third for amphibians, fourth for birds, and seventh for reptiles and butterflies. Within Ecuador, highland ecosystems provide the habitat for over 3,000 species of plants (of which 628 are endemic) as well as important species of birds, mammals, and amphibians, the latter being severely endangered. Equally rich is the agro-biodiversity in Ecuador. Over generations indigenous communities have adapted to the high biophysical diversity and have developed sophisticated agricultural and livelihood systems covering all altitudinal belts as high up as 4,000 m. asl.

The existence of serious environmental problems in Ecuador is causing the deterioration of natural ecosystems, the extinction of species, and the loss of genetic diversity of both wild and cultivated organisms. Not only is the destruction of habitats causing a reduction in biological diversity, but it is also causing accelerated loss of traditional knowledge and practice, and the social and cultural disintegration of the indigenous and local communities. Ecuador's forests are disappearing at rate of nearly 200,000 ha a year, more than three times the overall rate for Latin America. According to the Ecuador National Report submitted to FAO's Forest Resources Assessment 2010, the forest coverage in Ecuador has decreased from 13,817,000 ha (48,7 percent of the country's territory) in 1990 to 9,865,000 ha (34,7 percent) in 2010.

Although the lack of scientific information prevents a precise evaluation of the state of biodiversity in the country, it is evident that the main cause of the reduction in biological diversity is the destruction or deterioration of habitats. Still, the over-exploitation of resources, the introduction of exotic species, and environmental pollution are also causing the disappearance of flora and fauna species in Ecuador. The aquatic, continental, and marine ecosystems have also suffered growing deterioration due to excessive fishing, the introduction of exotic species, and water pollution caused by agricultural, mining, and hydrocarbon-related activities. Similarly, the displacement of native crops and the "modernization" of agricultural practices are causing the accelerated disappearance of the genetic resources stored in the cultivated species and varieties.

Although the 35 protected areas that make up the State Patrimony of Protected Areas cover 18.7 percent of the national territory, several ecosystems are underrepresented, and some terrestrial and marine ecosystems in the country are not represented at all. Analysis of gaps and priorities for biodiversity conservation land in mainland Ecuador found that 7 of the 46 types of vegetation are not represented, and several other types are underrepresented in protected areas today. Accordingly, Ecuador still requires additional efforts to consolidate and complete representation of its ecological and biological diversity, terrestrial, marine, and coastal.

The Northern Andean Páramos is a mountain ecosystem located between the upper tree line and the perennial snow. This tropical ecosystem which is generally characterised by a cold and humid climate, can be found between 3,200 and 4,200 m. asl. In Ecuador, the páramo ecosystems is included in eight protected areas in the State Patrimony and stretch across the highlands and surrounding high inter-valley plateaus and start on average at 3,300 m. asl. This altitude obviously varies according to the geological, climatic and anthropogenic conditions. Particularly in the southern part of Ecuador, páramo ecosystems can be found as far down as 2,800 m.asl (Beltran et al). The páramo ecosystem is restricted to the High Andes of Ecuador and Southern Colombia and is of critical ecological importance because of its high endemism (about 60 percent). The páramos are characterized by their rich, sponge-like soils and vegetation that capture and retain water, acting as a buffer against floods and droughts. Replete with springs that sustain streams and rivers below, the páramos serve as a critical provider of environmental services, supplying water for irrigation, human consumption, and hydropower to large numbers of people in the lowlands. The intricate linkages among the moisture-retaining functions of the páramo, the low temperatures of the highlands, and the influence of the Andes on cloud formation, also contribute to mitigating global warming.

The Ecuadorian Province of Chimborazo has the largest and best-conserved expanse of páramos in the country, extending over 6,490 km² (656,000 ha) approximately 30 percent of the existing páramos in Ecuador, mainly within and around two protected areas (PAs)—Sangay National Park and the Chimborazo National Fauna Reserve. The province offers striking mountain landscapes, including the Chimborazo Volcano (the country's highest peak at 6,310 meters), unique flora and fauna such as the endangered vicuña, and an incipient ecotourism industry. The páramos of Chimborazo Province are characterised by a large number of watersheds which origin on the ridges or mountain peaks in the nival zone and which discharge through the intensively cultivated inter-Andean valleys and through the cloud forests towards the Amazon basin and the Pacific Ocean respectively. The páramos form very important recharge areas within these watersheds. Chimborazo is also one of only two provinces where "Dry Páramo" is found. The unusually dry air and low temperatures have created "small islands" or unique ecological niches and microclimates surrounding the snow-capped mountain peaks. This has resulted in the unusually high endemism within Chimborazo's páramos.

Chimborazo is the second poorest province in Ecuador, with a per capita GDP (US\$1,222 in 2001) of about half of the national average (US\$2,436) and an estimated 80 percent of the population living below the poverty line. Poverty is concentrated in the mostly indigenous rural areas, where the index of unsatisfied basic needs is almost twice that of the capital city of Riobamba. Although agriculture (including agro-industry) accounts for 26.5 percent of provincial GDP and employs around 50 percent of its labor force, rural areas are characterized by fragmentation, overexploitation of natural resources, low productivity, and a low rate of commercialization.

The country's inadequate and ineffective Agrarian Reform process in the 1960s established small farmsteads for the mostly indigenous campesinos (farmers), but most properties awarded had low farming potential and have been successively subdivided into smaller, untenable lots. Because of poverty, small landholdings and population pressure, campesinos have over time been obliged to overuse soils, eliminate fallow periods, and extend cultivated and pastoral areas into higher altitudes, at the expense of the páramos. As a result of this process, the total area of páramos within Chimborazo has been decreasing rapidly in the past three decades. Between 1991 and 1999, 29,000 ha of páramos were converted into crops and pasturelands, and an additional 53,000 ha were severely eroded.

This ongoing extension of the agricultural and pasture frontier has resulted in the loss of habitats and biodiversity, unsustainable water use practices (especially for irrigation) and reduced water flows, soil erosion and inappropriate management of the natural resources overall. Over time, this process will result in further impoverishment, possibly leading to a crisis situation for the large number of people dependent on the natural resources, including water, provided by the páramos. Since the paramos are part of a complex highland-lowland interactive system, this pressure on the natural resources and crisis situation will inevitably have adverse off-site effects in downstream areas. The institutional mechanisms and capacity to address these trends and crisis are lacking.

Climate change is another important and emerging problem. There is evidence from many parts of the Andean Region including also from Ecuador that climate change leads to the melting of glaciers depriving mountain communities from essential perennial water supply. So far, the experience to deal with these changes and adaptation strategies are lacking. The proposed project, which will be based on the principles of integrated natural resources and collaborative watershed management, will create resilience to climate change and will pilot / test different measures for climate change adaptation.

The Chimborazo National Fauna Reserve has been created in 1987. In spite of the long existence of this Reserve there is a lack of knowledge about this vital ecosystem, particularly in terms of its faunistic resources. Also, a well developed and community-based management plan of the Chimborazo Reserve as well as basic facilities for visitors of the Reserve such as trails and a Visitor Center are so far missing. The reserve is home for an important population of the threatened vicuña camelid specie introduced in the Reserve in the late eighties. Since then the population has grown from the original 200 vicuña introduced from Peru and Chile to a population of 3.200 (2009) vicuñas. The fibres of these animals could provide an important income for the financial sustainability of the Reserve and at the same time generate income for the local population participating in its conservation based on sustainable management of the vicuña population and its habitat. However, local capacities for sustainable management of the animals, shearing and commercialization of the fibres have to be built. The proposed project will support the Ministry of Environment in upgrading the Chimborazo National Fauna Reserve and in making it an internationally renowned site for biodiversity conservation including the vicuña through the involvement of the local communities.

Despite the formidable environmental and socio-economic problems facing the province, it's institutional and governance organization is stronger and more stable than most, being based on indigenous practices of participatory decision-making. The current prefect, a strong proponent of the proposed project, is indigenous and has led the way in formulating of the provincial development plan "Minga por Vida" to promote integrated rural development with cultural identity. This plan prioritizes (i) strengthening the sustainable management of the environment; (ii) accelerating the local economy and increasing employment; (iii) improving the commercialization process; and (iv) implementing a social plan to confront poverty. The proposed GEF project is fully consistent with this plan. It will primarily support the first objective but will also address, to the extent possible, the second objective.

The proposed Chimborazo Natural Resources Management Project is a joint effort by the Chimborazo Provincial Council (CHPC), other national partners, FAO, and the GEF to support the conservation and sustainable management of the páramo ecosystem and its natural resources and the improvement of the livelihood situation of the local population. FAO will provide technical support to the project in a very broad sense, tapping into the expertise from its programmes on forestry, land and water, sustainable development, enterprise development, legal advice, etc. FAO will capitalize on previous and ongoing projects in Ecuador and in other parts of the world, especially those oriented toward collaborative and integrated watershed management.

The proposed project will be partially blended with and co-financed by the IBRD-supported Chimborazo Productive Investment (PIDD) Project (Loan No. 7496-EC, signed in April 2008), whose objective is to increase production and market access of rural families living in the province's Chambo and Chanchán-Chimbo river basins through investments in irrigation and roads improvement. Considering the numerous linkages between poverty and environmental degradation in Chimborazo, the success of the IBRD-financed project—especially in terms of: (i) securing reliable water supplies for irrigation, and (ii) improving productivity and roadways without contributing to the expansion of the agricultural frontier—is related to appropriate management of natural resources by the local indigenous population. The success of the GEF project, in turn, is dependent on the rationalized use of and eventual compensation mechanisms for water, conservation, especially for irrigation. The strategic linkage with the PIDD project will help to rationalize the water use in the province while new management approaches, including adequate incentives for conservation, will help reduce the threats. The irrigation improvements will substantially reduce water loss and increase the irrigated area. Improved irrigation will also become one of the most important incentives to local communities to adopt improved agricultural practices as proposed under the project. The GEF project will be able to enhance coordination between downstream water user associations (WUAs) -the main project partners of the IBRD loan- and indigenous communities residing in and around water sources in the páramos, with the goal of developing mechanisms to conserve water and biodiversity.

The project area includes five micro-watersheds (including the Chimborazo Fauna Reserve) within the Chambo and Chanchán river basins covering about 114,400 ha (88,800 ha in the Chambo watershed, of which 58,000 ha correspond to the Chimborazo Fauna Reserve, and 25,600 ha in the Chanchán watershed). This area was selected based on: (i) the presence of indigenous communities who participated in the elaboration of the Provincial Plan, (ii) zones containing well-preserved areas of páramos that are under high pressure, and (iii) proximity to PIDD project sites and to PAs. It is important to emphasize that the pilot projects in the micro-watersheds to be supported by the GEF project were originally conceived through the participatory planning process associated with "Minga por la Vida." Despite being designated as high priorities by the province's population and government, they have not yet been implemented however, due to a lack of resources and technical capacity at all levels. The CHPC has also

been under pressure to focus on immediate poverty reduction goals, often having to compromise long-term environmental sustainability for short-term income generation objectives. To counter this trend, the proposed project will provide institutional and technical assistance, as well as an adequate incentives framework and monitoring system, to assist the CHPC in mainstreaming biodiversity considerations and livelihood improvement into its development program in a way that is economically feasible, environmentally beneficial, and politically palatable across the short and long run.

To reduce the threats facing Chimborazo's páramos while supporting the province's poverty reduction goals, the project will focus on integrating biodiversity considerations into policy and legal frameworks as well as sector strategies (agriculture, forestry, water, and ecotourism) that impact the páramos and surrounding productive landscapes. Demonstration conservation practices related to agricultural production projects and replicable CES models will be piloted in selected micro-watersheds where current practices are inefficient and environmentally detrimental. Particular co-management and conservation activities will be implemented with local communities living within or in the buffer zone of the Chimborazo Reserve financially sustained by the development of microenterprises based on the vicuna population in the Reserve and tourist products and services offering new income generation opportunities. In addition, regulatory and policy frameworks at the provincial level will be strengthened, and incentives to further mainstream biodiversity conservation into development programs will be identified. It is anticipated that critical knowledge barriers will be removed while institutional capacities will be strengthened, resulting in improved willingness and ability to conserve the páramos. The policy framework will be oriented toward overall improvement of integrated natural resources management (NRM) while the legal framework will comprise the development of local ordinances for water tariff and forestry control, following the redistribution of institutional responsibilities to the Provincial Governments by the new constitution of 2008. All activities will be implemented through a participatory process with an emphasis on incorporating indigenous knowledge systems and techniques into improved practices, involving stakeholders at all levels in the decision-making process

The project's **Global Environment Objective** is to conserve and sustainably manage the Chimborazo's páramos and the biodiversity of the mountain ecosystems and to improve local livelihoods through strengthening of necessary policy, legal and institutional frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resource management. The project's **Development Objective** is to reestablish and sustainably use the agro-biodiversity and the páramos ecosystems and to improve food sovereignty of the local indigenous population dependent on Chimborazo's mountain ecosystems applying modern watershed management approaches.

The project will develop a watershed approach to ecosystem management and sustainable development. The project area includes five micro-watersheds of 15,000 to 20,000 ha each, all of them situated within the Chimborazo Province. The Chimborazo (including the Chimborazo Fauna Reserve), Atapo and Zula Watersheds are located in the Chanchán river basin and discharge into the Pacific Ocean. The Yasipan and Rio Blanco Watersheds are part of the Chambo river system which discharges into the Amazon basin (for details about the five watersheds see annex 9 in the Project Document). The project will apply an integrated landscape approach and will work across the different altitudinal belts located above 3,200 m.asl. Particular attention will be paid to the linkages between the different altitudinal belts and to the interface between high altitude land use systems, conservation of the páramos and the livelihood (mainly economic) situation of the local communities.

The five watersheds differ from each other in terms of their environmental characteristics, socio-economic conditions, institutional development and degree of experience with development projects. This means that although the steps and overall approach of project implementation are the same in all five watersheds, the project activities as well as the expectations from the project need to be differentiated for each of the watersheds. The activities for the project implementation have been organized in the following **components and sub-components** (for further details on component description please see Project Document section 3.2 and Results framework Annex 1 of the project document):

Component 1 - Conserving the páramos and related highland ecosystems

- a) Community-based watershed management planning
- b) Organizational and institutional strengthening
- c) Pilot interventions
- d) Compensation for Environmental Services Mechanisms
- e) Optimisation and rationalization of water use in the Province

Component 2 - Priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo

- a) Elaboration and negotiation of a national plan for the management of the Vicuña in Ecuador
- b) Construction of prioritised infrastructure and equipment
- c) Study of the Chimborazo Reserve and its buffer zone
- d) Development and implementation of co-management plans
- e) Development of local capacities and provision of equipment for the capturing and shearing of the vicuña

Component 3 - Capacity Building of the Chimborazo Provincial Council for Sustainable Natural Resources Management with focus on the paramos

- a) Strengthening of the capacities to develop policies and regulations on NRM considering biodiversity conservation
- b) Strengthening of the capacities related to methodologies and instruments for development and sustainable management of NRM
- c) Monitoring of NRM

The expected **global environmental benefits** are:

1. 58,000 ha in areas under threat in the Chimborazo Province under improved NRM (sustainable agricultural practices, areas under local CES systems, and increased reforested areas with native species).³
2. Coverage through natural regeneration and/or reforestation with native species along watercourses is increased by 20% in the project intervention area.
3. 56,000 ha of the National Fauna Reserve of Chimborazo with improved management effectiveness (from 40 percent to 70 percent by the end of the project using the GEF SP1 Tracking Tool).
4. The number of native grass species maintained or improved in the Chimborazo Reserve and its buffer zone (85 species in 2009)
5. Biomass (photosynthetic and non photosynthetic) and necromass per m² maintained or increased in the Chimborazo Reserve and its buffer zone by the end of the project (baseline to be established in representative m² samples in year 1)
6. Provincial Government capable of supervising and promoting the sustainable management of natural resources in the Province (4 provincial NR local norms approved and applied by 90 percent of the local communities involved in the project; NR monitoring systems operational for three selected project sites and the monitoring information generated is systematically used to plan supervision activities and community awareness raising and capacity building).
7. Three years after the end of the project 30 communities and/or indigenous organizations has adopted and are benefiting from conservation practices (substituting non camelid livestock with llamas and alpacas grassing in the páramos; protection of slopes and areas around headwaters below the páramos with native species; application of soil conservation and water harvesting technologies; conservation and use of local agro-biodiversity to increase food sovereignty and the use of conservation agricultural practices)
8. Vicuña fibers and tourist products and services generating USD250,000/year in total income for the local communities and for the conservation of the Chimborazo Fauna Reserve three years after the end of the project.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL AND/OR REGIONAL PRIORITIES/PLANS:

The 2020 vision of Ecuador's National Biodiversity Strategy and Policy (NBSP) is conservation and sustainable use of the country's biodiversity to foster a better quality of life based on equitable distribution of the costs and benefits derived from biodiversity resources. To achieve this vision the NBSP supports 4 main strategic axes: consolidate and strengthen the sustainability of production activities based on native biodiversity; ensure the existence, integrity and functionality of all biodiversity components (ecosystems, species and genes); balance pressures from conservation and sustainable use on biodiversity; and guarantee the respect and exercise of individual and collective rights to participate in decisions relating to access and control of resources. The NBSP prioritize the páramo

³ Biological impact indicators will also be established and monitored in the implementation of each Micro-watershed management plan. These indicators may include: increase or at least maintenance in water flow in relation to rainfall in the mid and lower part of the watershed, decrease in number of non-camelid livestock grassing in the páramos, reduction in agriculture encroachment on the páramos.

ecosystem among important fragile and seriously threatened ecosystems that need special strategies for in-situ conservation in the country. The páramo ecosystem is seen as particularly suitable for establishment of compensation schemes for its conservation because of the water production and storage services provided by the ecosystem for agriculture production and human consumption.

Ecuador has national policies to conserve and promote the sustainable management of highland ecosystems and a working group for the páramos has been established and has proposed National Policies for the Management and Conservation of the Ecuadorian Páramo Ecosystems. The Ministry of Environment is also promoting active participation in The Mountain Partnership to foster collaboration and sharing of experiences among mountain communities, local and national governments on conservation of mountain ecosystems and local sustainable livelihoods including the páramos.

The National System of Protected Areas (SNAP) is the main tool for onsite conservation of biodiversity and ecosystems including the páramos, and consolidation is therefore a national priority, in accordance with the new constitution from 2008. SNAP's analysis of financing needs (Ministry of the Environment 2005) and Financial Sustainability Strategy identifies a set of priority actions to promote sustainable financing of the system, highlighting the importance of maintaining and improving the State's annual investment in protected areas. There is also a need to diversify sources of income for self-management involving the local population, building innovative mechanisms such as compensation for environmental services, the provision of tourism services, and charging for additional facilities in protected areas (for example telecommunication towers), ensuring that the resources they generate are reinvested in the management of these areas and in maintaining the principle of distributing resources to those areas that, because of their special circumstances, are unable to be financially self-sustainable.

The project is consistent with these priorities of the Government of Ecuador identifying the country's highland ecosystems as a top priority for conservation and project staff and beneficiaries will actively be participating in and contributing to the Mountain Partnership. In line with the NBSP the project will provide on-the-ground conservation experiences and experiences with a CES mechanism to further support the development of policies and strategies for the conservation and sustainable use of the biodiversity of the páramo ecosystems involving local communities and water users associations. In its 2006 GEF National Strategy (GNS), Ecuador's Ministry of the Environment included the proposed project on its list of priorities for funding under the Resource Allocation Framework.

The project is also consistent with the National Strategy for Sustainable Development in that it: (i) supports land use planning, considering fragile ecosystems and their effect on local economies and their global importance; (ii) promotes the development of participatory plans for sustainable natural resource use; (iii) designs and develops innovative programs to harmonize indigenous peoples' traditional practices with management of critical ecosystems; and (iv) supports and invests in programs to promote community participation in sustainable biodiversity management.

Further, the project is consistent with the Financial Sustainable strategy for the SNAP in that it will improve the financial sustainability and management effectiveness of the Chimborazo Reserve and provide local experiences with co-management and benefit sharing of biodiversity services. The project will support the communities living in the Reserve and its buffer zone to better benefit from these services in terms of tourism products and services and vicuña fibres commercialization based on micro enterprises and sustainable management of the vicuña population and conservation of their habitat.

Finally, the project is consistent with the Province of Chimborazo's "Minga for Life" Development Plan, as it emphasizes the sustainable management of the environment (including management of water, forests, and Andean fauna, along with other types of natural resources) coupled with pilot strategies to alleviate poverty, ensuring local benefits. In essence, the project will assist the CHPC in integrating biodiversity considerations into planned and ongoing development programs across sectors, with a particular focus on sub-watersheds in the páramos.

CHPC, in order to address the negative environmental history, has given priority to building sustainable NRM capacities in the province which the GEF project will be an integrated part of. So far the effort of CHPC has included promotion of agro-forestry management through community nurseries, increase in the use of water production and harvesting practices, management of micro and sub-watersheds, dissemination and use of the inventory of water resources and protection of water sources and springs. CHPC is developing the Provincial Environmental Management Plan aiming at coordinated land use planning and implementation of the role of the

provincial government in promotion of works within river basins and watersheds as foreseen in the constitutional mandate. The process of developing the Environmental Management Plan has so far also included the strengthening of capacities in planning and management of irrigation systems while promoting farming activities. This has been possible with the valuable additional support from international cooperation, which has supported the CHPC in exercise its environmental mandate under the intercultural approach to indigenous peoples of Chimborazo.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS:

GEF eligibility

Ecuador ratified the Convention on Biological Diversity (CBD) on February 23, 1992. The project will contribute to meeting the Convention's 2010 targets by: (i) increasing the number of projects in agriculture and tourism sectors targeted to mainstreaming biodiversity; (ii) expanding the area of biodiversity-friendly managed landscapes; and increasing the percentage of communities that demonstrate improved livelihoods based on sustainable natural resource use. In accordance with paragraph 9(b) of the Instrument for the Establishment of a Restructured GEF, Ecuador is an eligible recipient of World Bank and/or UNDP technical assistance. The country is also a member nation and eligible to receive assistance from FAO.

GEF Strategy conformity

The project concept (PIF) was approved under the GEF biodiversity Focal Area Strategic Objective 2, "Mainstreaming Biodiversity in Production Landscapes/ Seascapes and Sectors" Strategic Programme (SP) 4 and 5.

The project will contribute to the GEF biodiversity SP-4 "Strengthening the policy and regulatory framework for mainstreaming biodiversity" by: (i) facilitating internalization of biodiversity considerations into the policies and operations of the CHPC including biodiversity conservation in agriculture, forestry and tourism sectors to secure national and global environmental benefits; (ii) providing technical assistance to develop institutional capacities of CHPC and establish the provincial policy and normative and regulatory framework required to integrate the conservation and sustainable use of the biodiversity of the highland ecosystems in particular the páramos into local farming, livestock, forestry and tourism activities; (iii) building local capacities to integrate conservation and use of highland biodiversity and ecosystems in land use planning and NRM management processes linked to the development of sustainable agriculture and livestock practices; and (iv) supporting sub-projects demonstrating potential synergies between sustainable watershed management and economic activities.

The project will contribute to the GEF biodiversity SP-5 "Fostering markets for biodiversity goods and services" by promoting new and effective partnerships and approaches to sustain conservation of the páramo ecosystems and its biodiversity through the development and implementation of a compensation schemes for environmental services (mainly the production of water resources) provided by these ecosystems and protected by indigenous and local communities living and depending on the land in the upper part of the watersheds with headwater in the páramos. This CES scheme will build on previous experiences in LAC, and if successful will be replicated in other watersheds in the Chimborazo Province and could be further replicated throughout the Andean region.

The project will also support the sustainable management of vicuñas, conservation of its habitat, and marketing of vicuña and other camelid fibres from live animals, which are important biodiversity friendly product giving incentives to local communities for conserving the páramo in the Andean region. Even though the habitat of the vicuñas is protected within the Chimborazo Fauna Reserve which is part of the páramo production landscape in Chimborazo, the effective protection needs strengthening due to the weak management of the Reserve. This project will take advantage of that the Reserve now holds an important population of one of the threatened species of the páramo ecosystem, the vicuna, offering an opportunity of benefits from biodiversity goods and services provided by the páramos. These benefits will at the same time provide incentives to the local population for protection of the biodiversity in this unique ecosystem. The project will support camelid and tourism activities in the Reserve mainstreaming the protection and sustainable use of biodiversity. These are the production activities compatible with the use regulation of the Reserve and the conservation of the unique páramo ecosystem. Even though the BD SO-1 tracking tool will be used to measure the advantage in management effectiveness of the reserve as a project outcome monitoring tool, the project does not work at the PA system or network level and is as such not a BD SO 1 project.

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES.

The GEF resources will be provided as a grant as seed money for conservation activities, which only in the medium term will be able to provide returns in terms of income generated from improved agricultural practices, water conservation supporting agricultural yields and marketing of vicuna fibres and tourist products and services. The GEF funds will likewise support the design and initial implementation of a CES scheme which will in the medium term provide financial sustainability to conservation practices implemented by local communities in the upper parts of the watersheds. The strengthening of capacities in NRM of the CHPC will also be supported by the GEF grant but co-financed by the CHPC which shows the Provincial Government's commitment to improve policies and regulations on NRM in the province supported by the this grant from the GEF.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The project will work closely with other projects working on related themes, sharing experiences and applying lessons, including the UNEP/GEF regional Páramo Andino Project, which is coordinated regionally by the Consortium of Sustainable Development for the Andean Ecosystem (CONDESAN) and by EcoCiencia within Ecuador. Synergies between the two projects will positively affect both outcomes. For example, the proposed GEF project would promote an institutional environment that should enhance the results and replicability potential of sustainable NRM initiatives. In turn, the UNEP/GEF project would develop a regional institutional network and information management system, which would support the proposed GEF project's overall goals.

Important coordination efforts will also take place with the WB/GEF Project "Adaptation to The Impact of Rapid Glacier Retreat in the Tropical Andes"-P098248 currently under implementation. This is a regional project working in Bolivia, Ecuador and Peru and the development objective is to contribute to the strengthening the resilience of local ecosystems and economies to the impacts of glacier retreat in the Tropical Andes, through the implementation of specific pilot adaptation activities that illustrate the costs and benefits of adaptation. In Ecuador, the project will focus on selected catchments draining the Antisana volcano, very important in the provision of water to the Quito Metropolitan Area. The planned pilot projects will include i) the development and implementation of a climate change adaptation strategy for water supply for the city of Quito and surrounding parroquias; ii) integrated watershed management plan in the Antisana microcatchments to cope with the impacts associated with glacier retreat. The second pilot and specifically where coordination and strategic links will be established with the proposed NRM project will include, among others, the development of participatory management plans for selected microcatchments and paramo ecosystems and the implementation of a community strengthening program for each participating community.

The UNDP – GEF Project: Financial Sustainability for the National System of Protected Areas (SNAP) is important for the coordination with activities to be financed in component 2, where co-management experiences and experiences with income generation for local communities and conservation of the Chimborazo Reserve can benefit the UNEP-GEF project executed by the Ministry of Environment. The long term goal of the UNEP-GEF project is to improve the sustainability of the National System of Protected Areas (SNAP), so that it provides development results through a healthy and sustainable environment and guarantees the Rights of Nature (as established in the Constitution). The project objective is to implement a field-tested, financial and institutionalized operational framework for an expanded Ecuadorian National System of Protected Areas within 9 selected demonstration sites based on further consultations and comprehensive technical and financial criteria to ensure that in the long term this experience can be strategically upscaled and/or replicated to the whole system. The Ministry of Environment will monitor the complementarity and promote synergies in the activities in component 2 of the Chimborazo GEF project to be implemented in the Chimborazo Reserve.

Activities will also be coordinated with the regional BioAndes Project financed by the Swiss Cooperation Agency (COSUDE) and implemented in Ecuador by Fundación Ecociencia.

There are various projects supported by international cooperations executed by CHPC with which the GEF Project will also be coordinated to create synergies. They are focused on strengthening the dynamics of rural indigenous people and improve the living conditions of the population including sustainable NRM. In particular important for coordination is the PIDD (Investment Development Project - Chimborazo) which is co-financing the GEF project and is highly complementary to the GEF. The GEF project will focus at the conservation of the water production services provided by the páramos giving sustainability to the PIDD investments and allowing for meeting the high social demand of water in a sustainable manner. In order to optimize available resources and internal control processes, the GEF Chimborazo Natural Resources Management Project will have the same institutional

implementation arrangements as the WB-funded PIDDD Project, with a core team to provide technical assistance to the CHPC as well as for Financial Management and Procurement. Among other projects supporting sustainable NRM in the province are the projects financed by JICA (Japanese cooperation) and KOICA (Cooperation Koreaana) with focus on Ground Water conservation and management, the project of Ecociencia BioAndes and the initiatives of various NGOs, international organizations, sectoral ministries, municipal governments and Parochial with emphasis primarily on integrated rural development and poverty reduction. Under the support and coordination of the CHPC synergies will be created between these initiatives and the GEF project in overall alignment with the premise of the "Minga for Chimborazo" and the "good life" (Kichwa language: "Minka Sumak Kawsay).

F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :

Scenario without GEF involvement

Currently it appears that about 40 percent of the Chimborazo Province still contains undisturbed highland habitat. Under the baseline scenario without the involvement of GEF in relation to the conservation of the páramos and related highland ecosystems supported in component 1, the Provincial Government Council (CHPC), will continue financing at a small scale the reforestation with native species basically to protect water springs and as wind barriers for community organic crops, also being supported at a very small scale by the CHPC. The estimated investment by the CHPC on reforestation and sustainable agriculture over the next 5 years will not exceed USD 1 million and will not cover key watersheds for highland ecosystems conservation. NGOs like Ecociencia and COMICH will continue providing limited support for an improved NRM process in the form of technical assistance for about USD 0.25 million and local communities will provide land to develop reforestation and sustainable agriculture programs for about USD 0.1 million. Projects like Runa Kawsay, PASSE, PPD, and P.R. Bioandes will continue promoting conservation and use of agro-biodiversity for food security with some inclusion of micro watershed management but with no comprehensive land use planning process looking at the interlinked dynamics and uses of the entire watershed with headwaters in the páramos. The PIDDD/WB programme will invest in Chimborazo USD 9.3 million in restoration and improvement of irrigation systems to support a more efficient use of water resources, but these infrastructure investments will not be followed by participatory water resource management looking at the conservation of the headwaters and equally distribution of benefits among users and communities involved in water resource conservation throughout the watershed. Under the baseline scenario a systematic ecological and land use planning process will not take place, productive alternatives linked to conservation practices will only slowly be developed restricted by limited resources, and no conservation activities will be sustained in the medium and long term by a functioning compensation system for environmental services (CES).

Further, under the baseline scenario in relation to priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo supported in component 2, the Ministry of the Environment (MAE) will be able to invest USD 0.66 million in executing the basic priority actions that have been identified in the Managerial Plan of the Chimborazo Reserve -basically those ones contemplated under the control and surveillance program, and contributing towards minimal Reserve's operational costs. No program for the sustainable management of the vicuña and shearing and commercialization of the fibres will be developed and implemented and the opportunity offered by this activity for financial sustainability of the conservation of the Reserve will continue to be untapped

In both the case of component 1 and 2, it will not be possible to develop strategies and execute demonstrative projects on integrated NRM incorporating CES as an innovative financing mechanism.

Finally, under the baseline scenario in relation to strengthening of CHPC capacities in natural resource management with focus on the páramos supported in component 3, the CHPC will be able to develop few ordinances and other legal tools on NRM investing about USD 0.6 million, but will lack the technical support to develop and effectively implement such legal tools. The development of ordinances will not be supported by a participatory process. Local NGOs will provide a modest support to developing a legal framework, and providing information for the NRM monitoring system. The CHPC has developed a GIS system with different socio-geographical and NR layers, but has no funds for the development of a NRM monitoring system related to monitoring the progress in the status of NR in specific conservation and sustainable use projects.

As described above a willingness to act and invest in favour of the conservation of the Chimborazo Province highland ecosystems is existent in the baseline scenario, but the limitations in resources would result in continuing deterioration of these ecosystems and continued loss of biodiversity, ecological functions and environmental services. Despite the increase in Ecuador's consideration for biodiversity protection, the main pressures on the

area -expansion of agriculture and cattle ranching, deforestation and soil erosion- would remain and in some cases would likely increase.

Under the baseline scenario no territorial planning processes and management plans would be developed, no participatory approaches undertaken, no coordination of activities between the various key sector and actors to provide the much needed protection for the outstanding biodiversity within the Chimborazo Province, and no replication of activities to improve conservation in other regions in the country.

Regarding the indigenous organizations and communities inhabiting in the project area, under the baseline scenario there would be only limited capacity-building activities for these communities to more effectively manage their territories and interact in a more positive and environmentally sound manner with natural resources on which they depend. Indigenous territorial management priorities would not be incorporated into the provincial and national planning tools. Finally, there would be very limited support to improve the management efficiency of one of the few Fauna Reserves existing in the country, the Chimborazo Reserve, which so far has succeeded in re-introducing alpacas and vicuñas, but require further support to consolidate such efforts.

Alternative scenario with GEF involvement

The opportunity exists for this project to work with the Chimborazo Provincial Government to produce an innovative, sustainable and improved management model for its highland ecosystems, and thus to contribute directly to conservation of globally unique biodiversity that is under serious threat by lack of appropriate management.

Under the alternative scenario, the project would support a solid partnership between the CHPC, local indigenous organizations, the Ministry of the Environment and local private organizations, as well as an innovative approach that would seek to mainstream biodiversity in productive activities such as agriculture and tourism. The project will strongly support sector alliances, incentives for the conservation of ecological functions with global biodiversity importance, such as micro-watershed management to strengthen the Chimborazo Province's capacity to sustainably manage natural resources.

Under Component 1 (Conservation of the páramos and related highland ecosystems), the proposed approach would help to improve conservation of the globally important biodiversity of the Andean highland ecosystems in Chimborazo and motivate other local governments throughout the country to incorporate a similar approach in their planning processes. This component's incremental cost (USD 2.3 million) would yield the following benefits: (i) setting up and application of a methodology for a micro-watershed participatory planning and management approach prioritizing conservation and sustainable use actions in accordance with the hydrological and agro-ecological dynamics of the watershed; (ii) development of demonstrative projects and strengthened capacity of local communities in land use planning and NRM to address key threats faced by the Province and the communities with livelihoods dependent on the highland ecosystems and its natural assets, seeking at a pilot level the conversion of unsustainable use practices into biodiversity-friendly, sustainable production systems; and (iii) establishment of a CES mechanism to sustain the conservation practices in the medium and long term based on compensation for ecosystem services provided.

Under component 2 (Priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo) the incremental cost (USD 0.7 million) benefits will be a substantial increase in the management efficiency and effectiveness of the Chimborazo Reserve through (i) improved knowledge on flora, fauna, and land property and use in the Chimborazo Reserve and its buffer zone to lay the ground for the elaboration of co-management plans with the local communities including carrying capacities of vicuñas and other camelids, flora y fauna to identify threatened species, and areas with forest vocation; (ii) vicuña sustainable management plan and capacity building to allow for taking advantage of the income opportunity from vicuña fibres to financially sustain the conservation of the Reserve and co-management by local communities; (iii) capacity building of local communities in land use planning, vicuña fibres and tourist product services micro enterprise business administration, natural resource management, ecotourism, NRM monitoring and reporting; and (iv) improved visitor center and trail infrastructure to support increased tourism activities.

Under component 3 (Strengthening of CHPC capacities in natural resource management with focus on the páramos) the incremental cost (USD 0.4 million) benefits will be that CHPC has the capacity to issue policy and regulations, support their implementation and to supervise and monitor the management status of natural resources in the Province. This will be obtained through: (i) a systematic gap analysis of the provincial legal and regulatory framework for natural resource management and conservation, development of adequate new legal tools and

technical assistance to support their application; (ii) design of a natural resource monitoring system and its implementation in specific the project sites; and (iii) training of and capacity building of CHPC staff in regulatory and monitoring aspects of NRM through conventional training sessions as well as on-the-job training in relation to the implementation of project activities.

The alternative scenario would therefore support globally important biodiversity conservation of Andean highland ecosystems in selected sub-watersheds of the Chimborazo Province. In addition, the CHPC and participating NGOs would be strengthened to replicate project activities throughout the Province. Without this project and the GEF's contribution, these benefits would not happen.

G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:

Project overall risk rating is moderate to substantial. The risks associated to this project are related to the following aspects: i) the implementation of new biodiversity conservation approaches that require a strong capacity building and highly participatory and consultation processes involving local and indigenous communities; ii) the limited knowledge at the Provincial level on practices to manage natural resources on a sustainable manner; and iii) the limited experience at CHPC to carry out natural resources management. Although the overall risk is rated moderate to substantial, the project design incorporates specific measures to mitigate the risk for environmental and development objective achievement. The main risks identified during project preparation are listed in the following table together with mitigation actions:

Risks	Rating	Risk Mitigation Measures
1. Change of authorities at the Provincial level could lead to changes in local policy related to natural resources management.	S	Linking the project to a provincial plan anchored in strong local communities' participation and enhancing local ownership.
2. Existence of special interest groups and fragmented communities and the lack of understanding of NRM activities could generate tensions, conflicts with local communities and undermine proposed project activities.	S	Support to social communication, capacity building, participation, strategic alliances building, and technical assistance in conflict resolution
3. Limited technical capacity by the CHPC could hinder the development and implementation of strategies to manage natural resources sustainably.	M	Capacity enhancement in planning and management of natural resources and biodiversity conservation, coupled with the development of policy and legal frameworks, will substantially enhance the existing capabilities
4. Limited capacity of local communities for environmental administration and biodiversity conservation in communal and private territories.	M	Training/capacity building included in the project will strengthen the capacity to plan, administrate and manage community resources while improving community organization. Capacity-building is an integral part of each component with a focus on "functional" learning. Replication of successful experiences in management of natural resources and in biodiversity conservation through proven capacity-building methods.
5. Hydrological knowledge insufficient to demonstrate the benefits of CES mechanisms to water users.	M	The project will support the collection and analysis of data to apply and validate appropriate models.
6. Local communities might perceive the implementation of local CES mechanisms as an intention to privatize the access to water, undermining the proposed CES mechanisms.	S	Providing training on CES at the early stage of project preparation and enforcing during the implementation period, as well as broadly disseminating the information of hydrological modeling will mitigate this perception.
7. Conflict between the Ministry of the Environment and the Provincial Council could impede the adequate implementation of the activities planned in the Chimborazo Reserve.	L	The Ministry of the Environment and the Provincial Council will sign an inter-institutional agreement where the specific supervision, implementation and monitoring roles and responsibilities will be established.

8. Insufficient project management and fiduciary (safeguards, procurement, and financial management) capacity within the CHPC.	M	Technical assistance in project implementation, procurement, and financial management, and upgrading of systems provided during preparation. Hiring of qualified personnel for the project's administration team and training of CHPC staff in safeguards, procurement, and FM has been effectuated during the start up phase of the execution of the PIDD/WB loan. A Procurement Unit (PU) has been established within the CHPC to ensure follow-up on FAO procedures and to keep a contract information system of the procurement cycle. The PU will carry out all procurement, that is, works, goods, services, and consultants' services. Establish a workflow of the procurement processes and approvals, including a time frame of each step.
Overall Risk	M-S	

H = High (greater than 75 percent probability that the outcome/result will not be achieved).

S = Substantial (50 to 75 percent probability that the outcome/result will not be achieved).

M = Modest (25 to 50 percent probability that the outcome/result will not be achieved).

N = Low or negligible (probability of less than 25 percent that the outcome/result will not be achieved).

H. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

Involving local communities in conservation activities and securing benefit sharing of ecosystem services is considered to be more cost-effective in the medium and long term than a solely top down regulation and enforcement approach, which is also out-of-reach within the means of the CHPC. Further, the project strategy of integrating biodiversity conservation and livelihood improvement considerations into micro-watershed planning was selected after analyzing the following alternatives in relation to cost-effectiveness and sustainability:

An integrated approach to NRM within individual sites initially formed the basis of the current project design, but it became apparent that a micro-watershed approach to NRM would be more effective in terms of mainstreaming biodiversity considerations into the ongoing development planning processes of the CHPC. Moreover, linkages with the IBRD PIDD project will be clearer through a micro-watershed approach.

Addressing problems in the upper watersheds solely with short-term measures (whether TA or financial support) would have been unlikely to result in a sustainable improvement in NRM in critical areas. Sustainable long-term adoption of land use practices that are socially desirable because of the high benefits they generate (to water users, or for biodiversity conservation), but which have limited benefits for individual farmers requires long-term compensation such as CES mechanisms can provide.

Developing a province-wide CES program (similar to Costa Rica's PSA Program) would not have been feasible as water uses in Chimborazo tend to be largely independent and managed locally. Irrigation systems are managed by local Water User Association, which set their own fees for operation and maintenance, for example, while towns manage their own domestic water supply systems (unlike many other Latin American countries, Ecuador does not have a national agency with responsibility for urban water supply). Moreover, experience in other countries has shown that such broad CES systems tend to be very inefficient. Rather, the approach to be followed is to develop separate small-scale CES mechanisms for individual cases. Similarly, developing a single province-wide water tariff to pay for CES would have failed to address the different conditions in different watersheds, resulting in funding levels that would be insufficient in some cases and excessive in others.

The project will also be cost-effective in sharing the project management costs and systems with the PIDD Program also executed by CHCP and co-financing the GEF project. Instead of creating a separate Project Management Unit within the CHCP the project will be executed within the existing structure of the CHCP.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

The main institutions involved in the project will be the CHPC, the Ministry of the Environment and the National Water Secretariat (SENAGUA), project's Beneficiary Indigenous and Community Organizations and local companies managing hydroelectric plants in the specific case of CES.

The Ministry of Environment Sub-secretariat of Planning is the GEF Operational Focal Point and responsible for the coordination of all GEF activities in the Country. The Sub-Secretariat of Natural Patrimony is managing the national System of Protected Areas including the Chimborazo Fauna Reserve through the regional office of the Ministry in Chimborazo. As established in the Environmental Management Act (La Ley de Gestión Ambiental), the Ministry is the normative environmental authority and issues norms and regulations for conservation and use of threatened species and vulnerable ecosystems including vicuña and the páramos. The Ministry coordinates the national decentralized system of environmental administration.

As a provincial government the CHPC is responsible for integration of the principles of conservation, development and sustainable use of natural resources in provincial planning processes in coordination with the municipal governments as established in the Environmental Management Act and the Provincial Regime Act (Ley de Régimen Provincial). For this end, the provincial government is recommended to establish an Environmental Management Unit and should formulate provincial environmental policies in consultation with the indigenous and local communities and may issue local ordinances or other legal instruments within the framework of the National Constitution and Environmental Act.

SENAGUA was created by Executive Decree 1088 of May 15, 2008 at the level of Ministry and with the mandate to lead and coordinate the processes of management of the national water resources in an integrated and sustainable manner. The water resource management should be decentralized using the watersheds as the management unit and under the responsibility of local watershed management committees accredited by SENAGUA. The responsibilities of SENAGUA include the regulation of water concessions and options for requesting compensation from water users for conservation of resources. SENAGUA is leading the process of formulation and proposal of a new water law which will further detail the roles and responsibilities in water resource management, which will be taken into account during project execution.

B. PROJECT IMPLEMENTATION ARRANGEMENT:

GEF Agency

The Food and Agriculture Organization (FAO) will be the GEF Agency for the project. FAO will provide supervision and technical guidance services during the project execution. Administration of the GEF grant will be in compliance with the rules and procedures of FAO, and in accordance with the agreement between FAO and the GEF Trustee.

As the GEF agency for the project, FAO will:

- Manage and disburse funds from GEF in accordance with the rules and procedures of FAO;
- Enter into an Execution Agreement with Chimborazo Provincial Council (CHPC) as the national executing agency for the provision of services to the project;
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned conservation and sustainable management of the Chimborazo mountain ecosystems;
- Carry out at least one supervision mission per year; and
- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

The FAO Representative in Ecuador, working in close consultation with the FAO Project Task Manager (see below); will be responsible for the management of the GEF resources and all aspects in the Execution Agreement that will be signed between FAO and CHPC. As a first step in project start-up, the FAOR will establish an interdisciplinary Project Task Force within FAO to guide the implementation of the project. Disbursement of funds for the provision of goods, minor works, and services to the project will be carried out by the FAO Representative in accordance with the provisions of the Agreement. The disbursement will be carried out upon submission by the CHPC to the FAO Representation of quarterly financial statements of expenditures, procurement and contract²¹

documentation, and disbursement requests based on a detailed budget for the following quarter to be cleared and approved by the Representative and a Project Progress Report to be approved by the LTU (see also section 5.5 below on financial management and section 6.4 on reporting).

A Project Task Manager will be appointed by FAO in the FAO Office in Ecuador, in consultation with the LTU and the GEF Unit, to support the FAO Representative in the supervision and provision of technical guidance to the project, in close consultation with the FAO Lead Technical Unit (LTU), the Forestry Management Division (FOMC) of the Forestry Department, and the multidisciplinary Project Task Force which will be constituted within FAO. The Project Task Manager will be paid from GEF fee resources. The FAO Project Task Manager will:

- Review project progress reports from CHPC and submit them to the LTU for approval and subsequently to the GEF Coordination in the Investment Centre Division (TCI) for final approval and uploading on the FPMIS;
- Review, revise and give no-objection to annual work plans and budgets in consultation with the LTU and the GEF Coordination;
- Review procurement and contract documentation for procurement and contracts to be financed by GEF resources and obtain internal FAO approval;
- Review CHPC project expenditures using GEF resources in accordance with the annual work plan;
- Review reports on executed co-financing to be submitted by CHPC and the MAE;
- Conduct periodic supervision missions;
- Prepare quarterly project implementation reviews (QPIRs) to be submitted to the LTU and the FAO GEF Coordination;
- Support the LTU in preparation of the annual Project Implementation Review (PIR) report
- Represent FAO in the Project Directive Committee and interview and selection panels for key project positions to be financed by GEF resources;
- In consultation with the FAO Evaluation Office, the LTU and the GEF Coordination, support the organization of mid-term evaluation and the final evaluation, contribute to the development of an eventual agreed adjustment plan in project execution approach and supervise its implementation.

The FAO Lead Technical Unit, Forestry Management Division (FOMC), will provide technical backstopping to the project and support the FAO Project Task Manager in responding to requests from CHPC for guidance on specific technical issues during project execution. The LTU will:

- review and give no-objection to TORs for consultancies and contracts to be performed under the project and to CVs and technical proposals shortlisted by the CHPC for key project positions, goods, minor works, and services to be financed by GEF resources;
- supported by the FAO Project Task Manager, review and clear final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed;
- assist with review and provision of technical comments to draft technical products/reports on request from the CHPC during project execution;
- review and approve project progress reports submitted by CHPC to the FAO Representation in Ecuador in coordination with the FAO Project Task Manager;
- support the FAO Project Task Manager in reviewing, revising and giving no-objection to annual work plans and budgets submitted by the CHPC and to be approved by the Project Directive Committee;
- prepare the annual Project Implementation Review report, supported by the FAO Project Task Manager and inputs from the CHPC, to be submitted for clearance and completion by the GEF Coordination (TCI) which will subsequently submit the PIR to the GEF Secretariat and Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The LTU must ensure that CHPC has provided information on co-financing provided during the course of the year for inclusion in the PIR;
- field at least an annual project supervision mission or more frequently as needed;
- review and give no-objection to the TORs for the mid-term evaluation, participate in review mission including the mid-term workshop with all key project stakeholders, development of an eventual agreed adjustment plan in project execution approach, and supervise its implementation supported by the FAO Project Task Manager

Executing Partner

CHPC will be the project **Executing Agency** directly responsible for technical implementation of project activities, day-to-day monitoring as well as financial management and purchase of goods, minor works, and services (procurement) in accordance with rules and procedures as established in the Project's Operational Manual (see section 3.8.1 above). CHPC will enter into an Execution Agreement with FAO allowing for the purchase of goods, minor works, and services needed to execute the project. FAO will ensure that the rules and procedures set out in

the Project's Operational Manual are acceptable in accordance with FAO rules and regulations and GEF minimum fiduciary standards, and CHPC will follow in particular rules defined in the Execution Agreement. The Execution Agreement will outline in details the roles and responsibilities of CHPC and procedures with respect to financial management, procurement, recruitment, project progress reporting, financial reporting and audit, copyright, and other legal aspects of collaboration.

The institutional arrangements for project implementation provide for the use of the existing structure within the CHPC, thereby avoiding the creation of new ones, such as a project implementation unit. The technical implementation of the GEF project will be under the Environment Unit. Regular staff of this Unit and of other Directorates and Units at the executive, advisory, support and operational levels in the CHPC will assume specific responsibilities under project execution and will be supported by external specialists (a project technical coordinator, a financial accounting assistant and a procurement assistant) to be hired financed by GEF resources that will strengthen the CHPC's capacity to comply with all FAO rules and procedures under the execution of the GEF funds.

CHPC will jointly execute the GEF project and the co-financing PIDD programme financed by the World Bank using the same financial management, output and outcome monitoring, and procurement systems and procedures as established in the Project's Operational Manual and adjusted to FAO Rules. As mentioned in section 3.8.1 above the World Bank has supported CHPC in the successful implementation of an action plan to strengthen execution and project management capacities and mitigate any fiduciary risks including implementation of a financial management information platform, a project planning and monitoring system based on the project's Results Framework, and procurement (goods, minor works, and services) standards and procedures in compliance with World Bank policies and norms. In the Project's Operational Manual for the FAO-GEF project these standards and procedures will be adjusted to FAO rules.

CHPC will submit quarterly statements of expenditures, procurement and contract documentation, and disbursement requests based on a detailed budget for the following quarter, and annual audited financial statements to the FAO Representation in Ecuador. Further, CHPC will prepare and submit to the FAO Representation Project Progress Reports, annual Work Plans and budgets, and all documentation needed for the preparation of the annual PIR (see section 6.4 below).

Project Directive Committee (PDC): The PDC is the same committee operating under the PIDD programme. The PDC will make decisions on the overall management of both projects. The Provincial Prefect will preside over the PDC, which will be composed of eleven additional members (3 members of the Provincial Council that will rotate their participation on an annual basis); Coordinators of the Divisions of (i) Public Works, (ii) Environment, and (iii) Finance (3 in total); and 3 representatives of the Provincial's Participatory Budget Forums (that will rotate their participation on an annual basis), which represent the civil society across the key sectors attended by the project (irrigation, roads and environment). In addition, in all aspects concerning the GEF project three additional members will be included in the PDC: the director of the regional office of the Ministry of Environment in Chimborazo, 1 representative from the Organizations co-financing the project and one representative from FAO as the GEF Agency. The PDC will be responsible for maintaining the strategic focus of the project as for specific operational tasks.

Project Coordination: The Project General Coordinator (PGC) will be the coordinator of the Environment Unit (staff of CHPC) who will work closely with the Coordinator of the Division of Public Works who is the Coordinator of the PIDD Project, in order to secure a good coordination between these two operations.

Project Technical Coordinator (PTC): The PTC will be financed by GEF resources and will work under the direct supervision of the Project General Coordinator and lead the Project's Technical Team (PTT). The PTC supported by the PTT will be responsible for the overall planning and coordination of the implementation of all project activities, including: (i) the preparation and follow-up on Annual Work Plans and procurement plans; (ii) the eventual update in Project's Operational Manual (POM) to be cleared by FAO; (iii) disbursements and financial execution; (iv) supervision of procurement (goods and services) procedures; (v) managing a financial information system to track project accounting and disbursements; (vi) manage a contract information and project results system to monitor implementation and project results; (vii) the preparation of monitoring and project progress reports to be presented to the Environmental Unit for their assessment and submitted to FAO and provision of any project related information required by FAO and/or GEF; (viii) the preparation of all contractual arrangements and institutional agreements needed to execute project activities at the provincial and local level; (ix) the preparation and

development of project supervision missions and mid-term evaluation mission or the FAO; (x) develop and supervise the implementation of the work plans of all PTT members; (xi) ensure that CHPC has arranged for annual external audit of the project and that the audit reports are provided to FAO in a timely manner; (xii) the facilitation of the preparation and implementation of training/capacity building events; (xiii) make sure that the appropriate approaches are followed during project implementation (participatory and integrated approaches, multi-stakeholder participation, etc.); and (xiv) convene on a regular basis meetings of the PTT in order to coordinate activities, exchange lessons learned and harmonize approaches.

Project Technical Team (PTT): The project will not create a project implementation unit. Instead it will operate through a Project Technical Team (PTT) composed of external experts hired by the Project to strengthen the CHPC's institutional capacity to execute the project. This team will be directly supervised by the PTC. Regular staff of the CHPC located in several Directorates and Units will provide additional technical support and will be fully involved in project implementation. The PTT will be composed by 3 external consultants contracted by the project financed by GEF resources, as follows: one Andean agro-ecosystem specialist, one watershed land use planning and NRM specialist; and one social specialist (community promotion/ communication and workshop facilitator). The project will share procurement and financial management specialists with PIDD Project. The PTT will: (i) undertake the operational implementation of the project under the coordination of the PTC; (ii) prepare the Annual Work Plans and budgets, the procurement plans, and the project progress reports; (iii) provide coordinated technical advice maximizing synergies between all project activities; (iv) facilitate all procurement (goods and services) processes required under project implementation; and (v) provide all required information and reports requested by the PDC, PTC and by the FAO.

The Ministry of the Environment (MAE): MAE will be responsible for the technical execution of component 2 strengthening the management and conservation of the Chimborazo Nature Reserve. MAE operates each protected area in the National PA system including the Chimborazo Reserve under decentralized arrangements through provincial offices. Each protected areas office is staffed with a Biodiversity Leader, a Manager, and park guards. The first two are the ultimate responsible for planning, budget allocation and the implementation of the Annual Operational Plans. For this particular project, MAE will participate through the office located in Riobamba. The administration of funds for component 2 will be fully under CHPC, thus, there will be no transfer of funds to MAE for the implementation of the activities in the Chimborazo Reserve. However, the Reserve's staff, in coordination with the Environment Unit, PDC and the PTT, will help to plan, supervise and monitor the overall design and implementation of such activities and their outputs. To clearly set up the roles and responsibilities, prior to declaring the project operational CHPC and MAE will sign an inter-institutional agreement (or memorandum of understanding (MOU)), which will detail the activities to be implemented, allocation of funds and the planning, implementation, supervision and monitoring roles during the execution of component 2. This agreement will be integrated in the Project's Operational Manual. This agreement will also spell out the safeguard issues to be observed under the different activities supported by the project.

The Provincial Environment Working Group (PEWG) recently established and leaded by the CHPC, will oversee and provide technical guidance on project overall implementation in close coordination with the PDC, PTC and PTT. Periodically the PEWG will review project implementation progress and report to the Provincial Prefect and heads of CHPC's Directorates.

At the local level, particularly under Component 1 and 2 of the project, **Beneficiary Community and/or Indigenous Organizations (BCIO)** will be responsible for the implementation and monitoring in the field of the local CES agreements, improved land use demonstrative projects, co-management projects of the Chimborazo Reserve, and other priority activities identified under the micro-watershed management plans. Based on the weak institutional, technical and administrative characteristics of the majority of BCIOs, the PTT will provide technical assistance and support, among other aspects: (i) the preparation of management plans through an ecological land use planning process and (ii) the implementation of the pilot/demonstrative projects.

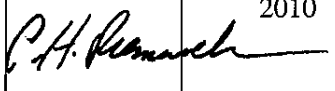
PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

The project design is in alignment with the original PIF. However, due to the transfer of the project from the World Bank to the FAO a considerable time has passed since the PIF was approved and the project design has been updated in accordance with CHPC experiences in NRM and developments in the watersheds. The components

have been slightly restructured to obtain better logic in the project design, but the outcomes and objectives are the same as originally proposed. The major change in structure has been the separation in one component of activities to support the implementation of priority actions for strengthening the management of the Chimborazo Reserve and support the fostering of markets for vicuña fibres and tourism services sustained by the Reserve due to the particularities of the Reserve and for practical reasons facilitating the lead role of the Ministry of Environment in this component. This change from the PIF is as such only a restructuring of activities in three components instead of the original two components.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Charles Riemenschneider Director, Investment Center Division FAO		November 11, 2010	Thomas Hofer	+39 06 5705 3191	Thomas.hofer@fao.org
Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org Tel.+39 06 5705 5478 GEF Agency Executive Director			Rikke Olivera	+39 06 5705 5701	Rikke.olivera@fao.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Impact	Baseline 2010	Outcome indicators
<p>Global Environment Objective to conserve and sustainably manage the Chimborazo's páramos and the biodiversity of the mountain ecosystems and to improve local livelihoods through strengthening of necessary policy, legal and institutional frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resource management</p>	<p>Limited community management of NR and reforestation with native species (Los Atapos and Rio Chimborazo Watershed communities), CES system non existent</p> <p>50% management effectiveness</p> <p>Ordinance for the sustainable management of Chimborazo's páramos exists but is not applied, no NR monitoring system exists</p>	<p>58,000 ha of páramo and its areas of influence under threat⁴ in the Chimborazo Province under improved NRM (Sustainable agricultural practices, areas under local CES systems, and increased reforested areas with native species)⁵.</p> <p>Coverage through natural regeneration and/or reforestation with native species along watercourses is increased by 20% in the project intervention area.</p> <p>56,000 ha of the Chimborazo Reserve with improved management effectiveness (from 50% to 70% by the end of the project using the GEF SP1 Tracking Tool).</p> <p>The number of native grass species maintained or improved in the Chimborazo Reserve and its buffer zone (85 species in 2009)</p> <p>Biomass (photosynthetic and non photosynthetic) and necromass per m² maintained or increased in the Chimborazo Reserve and its buffer zone by the end of the project (baseline to be established in representative m² samples in year 1)</p> <p>Provincial Government capable of supervising and promoting the sustainable management of natural resources and biodiversity conservation in the Province (4 provincial NR and biodiversity conservation norms approved and applied by 90% of the local communities involved in the project; NR monitoring systems operational for three selected project sites and the monitoring information generated is systematically used to plan supervision activities and community awareness raising and capacity building)</p>
<p>Project Development Objective to reestablish and sustainably use the agro-biodiversity and the páramos ecosystems and to improve food sovereignty of the local indigenous population dependent on Chimborazo's mountain ecosystems applying modern watershed management approaches.</p>	<p>More than 25 communities of Chimborazo are involved in the projects Runa Kawsay, PASSE, PPD, and P.R. Bioandes promoting conservation and use of agro-biodiversity for food security. In some cases the participating communities are managing micro-watersheds but there is no systematic approach towards the conservation of the páramos and NRM. Other communities (Zula and Guasuntos) have initiated community management of the páramos however they lack compensation mechanism to sustain their efforts.</p> <p>A few communities are generating some income from selling alpaca wool products to tourists visiting the Chimborazo Fauna Reserve. No income from vicuña fibers.</p>	<p>Three years after the end of the project 30 communities and/or indigenous organizations has adopted and are benefiting from conservation practices (substituting non camelid livestock with llamas and alpacas grassing in the páramos; protection of slopes and areas around headwaters below the páramos with native species; application of soil conservation and water harvesting technologies; conservation and use of local agro-biodiversity to increase food sovereignty and the use of conservation agricultural practices)</p> <p>Vicuña fibers and tourist products and services generating USD250,000/year in total income for the local communities and for the conservation of the Chimborazo Fauna Reserve three years after the end of the project</p>

⁴ Areas under threat refer to specific sited selected within the Chambo and Chanchán watersheds, not included in the Chimborazo Reserve, holding important extensions of páramos, but under strong pressure and threat due to agricultural frontier expansion and over-grazing.

⁵ Biological impact indicators will also be established and monitored in the implementation of each Micro-watershed management plan. These indicators may included: increase or at least maintenance in water flow in relation to rainfall in the mid and lower part of the watershed, decrease in number of none-camelid livestock grassing in the páramos, reduction in agriculture encroachment on the páramos.

Intermediate outcomes	Intermediate outcome indicators	Assumptions	Use of intermediate outcome monitoring
Component 1: Conserving the páramos and related highland ecosystems			
Communities and/or indigenous organizations adopting conservation practices (substituting non camelid livestock with llamas and alpacas grassing in the páramos; protection of slopes and areas around headwaters below the páramos, soil conservation and water harvesting measures; conservation and use of local agro-biodiversity to increase food sovereignty and the use of conservation agricultural practices) improving their economic situation based on participatory watershed management plans and CES schemes	20 communities by the end of year 3 and at least 30 communities by the end of the project	Communities take ownership of micro-watershed management plans and the willingness to compensate for the conservation of water resources is maintained when concrete CES schemes has to be implemented	<u>Year 1:</u> assess the progress in elaboration of micro-watershed management plans and if needed adjust the scope and methodology as to start implementation of the plans in year 2 and 3. <u>Year 2:</u> assess the progress in selection of pilot compensation scheme and definition of criteria for eligibility, contract conditions, and means of verification as to negotiate contracts and start pilots in year 3 and 4 <u>Year 3 and 4:</u> monitor implementation of management plan priority actions and training activities and redefine approaches if necessary <u>Midterm evaluation:</u> review implementation of management plans priority actions and progress in CES pilots and redefine priorities and training approaches if necessary. Assess the quantity and level of involvement of communities, their adoption of conservation technologies and practices, and improvements in their economic situation, and redefine approaches if necessary
Component 2: Priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo			
Agriculture encroachment of the páramos in the Chimborazo Reserve and grassing of non-camelid livestock in the páramos located in the Reserve stopped by the end of the project. Vicuña fibers and tourist products and services generating at least USD100,000/year in total income for the local communities and for the conservation of the Reserve by the end of the project	50% reduction by the end of year 3, 80% reduction by the end of year 4, no encroachment or grassing of non-camelids livestock by the end of the project USD 15,000/year by the end of year 3, USD 50,000/year by the end of year4, and USD 100,000/year by the end of the project	Communities take ownership of co-management activities of the Chimborazo reserve. The vicuña fibers market prize stays at around USD 600/kg	<u>Year 1 and 2:</u> assess the progress in baseline studies of the area of the Chimborazo Reserve and the development of co-management plans and if needed adjust the scope and methodologies as to start implementation of priority activities in year 3 <u>Year 3 and 4:</u> monitor implementation of priority surveillance, conservation and sustainable use activities and the level of adoption by local communities and redefine approaches if needed <u>Midterm evaluation:</u> Review implementation of co-management activities, the reduction in encroachment or grassing of non-camelids livestock, the level of awareness and involvement of local communities, the sustainability of the management and business approach to commercializing vicuña fibers and tourist products and services and the level of income generated. Adjust capacity building approaches and participatory methods applied if necessary.
Component 3: Strengthening of CHPC capacities in natural resource management with focus on the páramos			
CHPC has the capacity to issue policy and regulations and to supervise and monitor the management status of natural resources considering biodiversity conservation in the Province.	By the end of year 4, four provincial NR ordinances are approved and applied and M&E system operational in three project sites	CHPC has been empowered in NR Management and its M&E system is institutionalized	<u>Year 1:</u> assess the progress in the gap analysis of NR regulations and the design of the M&E system and if needed adjust the scope and methodologies to allow for development of ordinances or appropriate instruments and implementation of the M&E system in year two. <u>Year 2 and 3:</u> Evaluate the acquired capacities of training beneficiaries and adjust training approach if necessary. <u>Midterm evaluation:</u> Review the level of strengthened capacities in the CHPC, the development and application of ordinances in beneficiary communities and the implementation of the M&E system and how the generated information is used by the CHPC to strengthen NRM in the province. Adjust capacity building approaches if needed.

Arrangements for Results Monitoring

	Baseline	Target Values					Data Collection and Reporting	
		Year 1	Year 2	Year 3	Year 4	Year 5	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
Component 1: Conserving the páramos and related highland ecosystems								
Inputs and targets:								
At least 3 micro-watershed management plans completed by the selected project sites based on needs assessments, participatory land use planning, and priority setting processes.	1 land use plan exists for Rio Chimborazo micro-watershed elaborated with support from Ecociencia which needs to be up-dated and strengthened in its implementation	2 draft plans	2 plans completed and approved by CPCH and MEA. 1 additional draft plan	3 plans completed and approved by CPCH and MAE			Approved plans, Annual Project Progress Report (APPR)	CHPC and community organizations
At least 30 community and/or indigenous organizations trained in sustainable land use planning and natural resource management practices.	Some actions from the Rio Chimborazo micro-watershed management plan has been implemented including biodiversity management			30%	70%	100%	Verification in the field, management plan annual monitoring report, six monthly Project Progress Report (PPR)	CHPC and community organizations
	Some communities involved in the project Runa Kawsay, PASSE, PPD, and P.R. Bioandes, have received limited training in management of micro-watersheds as part of sustaining the conservation of agro biodiversity. Other communities (Rio Blanco and Cebadas) have received some training in management of micro-watersheds and the páramos.	10	15	20	25	30	Training material and modules used, list of participants in each module, six monthly PPR	CHPC and community organizations

At least 30% of the cultivated surface of the micro watershed covered by the project benefit from improved irrigation systems managed by the users under criteria of efficiency, equity and sustainability in the use of water resources	5%	10%	15%	20%	25%	30%	Verification in the field, PIDDA APPR	CHPC and water users organizations
Compensation value assessment of services conserving the headwaters provided by the mountain communities managing the ecosystems of the upper parts of the micro-watersheds including the páramos	No assessment of the value exists	Assessment completed					Assessment report	CHPC
Identification and analysis of options for water users (irrigation association, hydroelectric power plants) compensation schemes and design of the CES mechanism including criteria for eligibility of beneficiary communities, contract conditions, and means of verification of compliance with conservation services	Compilation of PES/CES experiences from other regions and preliminary identification water users and compensation sources	Identification and analysis of options for compensation schemes	Participatory selection of pilot compensation scheme and definition of criteria for eligibility, contract conditions, and means of verification				Analysis of compensation/payment scheme option report, CES mechanism design report, APPR	CHPC
At least 2 pilot contract prepared and in initial implementation with mountain communities providing conservation services	No contract exists			Negotiation and signature of 2 pilot contracts	Implementation and monitoring of compliance with contracts	Implementation and monitoring of compliance with contracts	Signed pilot contracts, biannual contract monitoring reports, six monthly PPR	CHPC, water and community organizations
Intermediate outcomes:								

least 30 communities and/or indigenous organizations involved in conservation activities (including instituting non camelid stock with llamas and areas grassing in the páramos; protection of slopes areas around headwaters of the páramos, soil conservation and water investing measures, preservation and use of local biodiversity to increase security and the use of conservation agricultural practices) improving their economic situation based on participatory watershed management plans and CES schemes	Communities involved in the project Runa Kawsay, PASSE, PPD, P.R. Bioandes (more than 20) by promoting conservation and use of agro-biodiversity for food security. In some cases the participating communities are managing micro-watersheds but there is no systematic approach towards the adoption of conservation practices. Other communities (Rio Blanco and Cebadas) have initiated community management of the páramos however they lack compensation mechanism to sustain their efforts.	5	10	20	25	30	Verification in the field (midterm evaluation and final evaluation), Micro-watershed management plan annual monitoring report, biannual CES contract monitoring reports, APPR	CHPC and community organizations
Outcome: 6000 ha of páramo and its areas of influence under threat ⁶ in the Chimborazo Province. Her improved NRM sustainable agricultural practices, areas under local CES schemes, and increased forested areas with native species). ⁷	Limited community management of NR and reforestation with native species (Los Atapos and Río Chimborazo communities), CES system non existent			25,000 ha	45,000 ha	58,000 ha	Verification in the field (midterm evaluation and final evaluation), Micro-watershed management plan annual monitoring report, biannual CES contract monitoring reports, APPR	CHPC and community organizations
average through natural regeneration and/or reforestation with native species along watercourses is increased by 20% in the project intervention area.	Baseline to be established in year 1			5%	13%	20%		CHPC and community organizations
Component 2: Priority actions to strengthen the management and conservation of the National Fauna Reserve of Chimborazo								

areas under threat refer to specific sited selected within the Chambo and Chanchán sub watersheds, not included in the Chimborazo Reserve, holding important extensions of páramos, but under strong pressure and threat due to agricultural frontier expansion and over-grazing.

Ecological impact indicators will also be established and monitored in the implementation of each Micro-watershed management plan. These indicators may included: increase in water flow or at least maintenance in relation to rainfall in the mid and lower part of the watershed, decrease in number of none-camelid livestock grassing in the páramos, reduction in agriculture roachment on the páramos.

<p>Outputs and targets:</p> <p>National Management Plan for Vicuña elaborated and presented to the parties of the Convention for the Conservation and Management of the Vicuña under CITES</p>	<p>A national norm exists but no national management plan. Ecuador has the support of member countries of the Vicuña Convention in the process of change to appendix II, (allowing for using the fibres from the live animal), when an appropriate management plan has been presented to the CITES COP, it is noted that a pilot phase is allowed.</p>	<p>National Plan developed and presented to the parties of the Convention</p>					<p>Plan document, minutes from meeting of the parties of the convention, APPR</p>	<p>CHPC, MoE</p>
<p>Infrastructure and equipment prioritized in the management plan of the Chimborazo Fauna Reserve constructed (small visitor centre and administrative office, rehabilitation of main trails in the Reserve)</p>	<p>The Technical specifications and drawings of the Visitor Centre exist. Trails are badly maintained and marked</p>	<p>Planning and execution of the rehabilitation and construction works.</p>	<p>Visitor centre and administrative offices finished</p>	<p>Trails rehabilitated</p>			<p>Verification in the field, termination of constructions and trails reports, six monthly PPR</p>	<p>CHPC, MoE</p>
<p>Studies of the Chimborazo Reserve and its buffer zone to lay the ground for the elaboration of co-management plans with the local communities including a complete mapping of vegetation cover and land use including community and private properties inside the Reserve and an evaluation of biophysical and ecosystem capacities (carrying capacities of vicuñas and other camelids, flora y fauna to identify threatened species, and areas with forest vocation).</p>	<p>MoE and Ecociencia mapped part of the vegetation cover and land use in the Reserve in 2009. The CHPC has a GIS system including land use and some vegetation cover in the Chimborazo part of the Reserve. These data needs to be up-dated and complemented to get a complete mapping of the Reserve.</p>	<p>Complete mapping of vegetation cover and land use and an evaluation of biophysical and ecosystem capacities validated with MoE, CHPC and the local communities</p>					<p>Mapping and ecosystem evaluation reports, six monthly PPR</p>	<p>CHPC, MoE</p>

<p>development and implementation of co-management plans involving at least 10 local communities in conservation and sustainable use of the natural resources in the Chimborazo Reserve and its buffer zone including:</p> <ul style="list-style-type: none"> • sustainable grassing schemes substituting cattle and sheep stock with camelids in the area; land use zoning and regulations; conservation of watersheds; inclusion of local communities in surveillance of resources and provision of tourism services. 	<p>The Chimborazo Reserve has a general management plan elaborated in 2006, which does not include concrete co-management approaches and activities</p>		<p>Participatory developed co-management plans including prioritized activities and budget for their implementation approved by MoE and local communities</p>	<p>Priority conservation and sustainable use activities implemented with 3 local communities</p>	<p>Priority conservation and sustainable use activities implemented with 7 local communities</p>	<p>Priority conservation and sustainable use activities implemented with 10 local communities</p>	<p>Approved co-management plans, biannual monitoring reports of the implementation of the co-management plans, six monthly PPR</p>	<p>CHPC, MoE, and community organizations</p>
<p>Program for the development of local capacities, provision of equipment and implementation capture, shearing, processing and marketing of the vicuña skins from at least 500 vicuñas on sustainable management of the species and accordance with the CITES convention generating economic benefits.</p>	<p>Since late 80's where the first 200 vicuña were reintroduced to the Reserve from Peru and Chile the population has grown to 3,200 (2009). There has previously not been any harvesting of the fibres, but the population now has a size which allows for this activity which in accordance with the CITES convention should benefit the local communities participating in the conservation of the species.</p>		<p>Agreement with local communities on roles and responsibilities in the conservation and sustainable management of the vicuña population, harvesting of the fibres and sharing of the income generated</p>	<p>Business plan for vicuña fibres developed. Equipment and training provided and 100 vicuñas sheared and the fibres processed and commercialised</p>	<p>Business plan adjusted based on experiences. Equipment and training provided and 300 vicuñas sheared and the fibres processed and commercialised</p>	<p>500 vicuñas sheared and the fiber is processed and commercialized</p>	<p>Approved agreement and business plan, monitoring report of the conservation and sustainable use of vicuñas, six monthly PPR</p>	<p>CHPC, MoE, and community organizations</p>
<p>Intermediate outcomes:</p> <ul style="list-style-type: none"> • rassing of non-camelids • restock in and agriculture • encroachment of the páramos • the Chimborazo Reserve • stopped by the end of the • object 	<p>Baseline to be established in year 1</p>			<p>50% reduction in encroachments and grassing of non-camelids</p>	<p>80% reduction in encroachments and grassing of non-camelids</p>	<p>encroachments and grassing of non-camelids stopped</p>	<p>Land use mapping and monitoring, APPR, midterm evaluation</p>	<p>CHPC, MoE, and community organizations</p>

Vicuña fibers and tourist products and services generating at least USD100,000/year in total income for the local communities and for the conservation of the Reserve by the end of the project	Some communities are generating some income from selling alpaca wool products to tourists visiting the park. No income from vicuña fibers.				USD 15,000/year	USD 50,000/year	USD 100,000/year	Annual accounts from community micro-enterprises for vicuña fibers and tourism products, APPR, midterm evaluation and final evaluation	CHPC, MoE, community organizations
Outcome: 56,000 ha of the Chimborazo Reserve with improved management effectiveness (from 40% to 70% by EOP using the GEF SP1 Tracking Tool).	50% management effectiveness 2010	55%	60%	65%	70%			GEF BD SP1 Tracking Tool filled out during project preparation, at midterm evaluation and by the end of the project.	CHPC, MoE, community organizations
The number of native grass species maintained or improved in the Chimborazo Reserve and its buffer zone	85 species in 2009	Indicators and baseline established	85 or more		85 or more			Vegetation studie and monitoring, midterm evaluation and final evaluation	CHPC, MoE, community organizations
Biomass (photosynthetic and non photosynthetic) and necromass per m ² in the Chimborazo Reserve and its buffer zone	Baseline to be established in representative m ² samples in year 1	Baseline established					Baseline maintained or increased	Biomass sample studie; final evaluation	CHPC, MoE
Component 3: Strengthening of CHPC capacities in natural resource management with focus on the páramos									
Outputs and targets:									

least 20 CHPC and local anization staff have eited directly from Capacity lding/Training program in hologies and instruments development and sustainable agement of natural ources using a watershed roach.	Low capacity in NRM and watershed management	10 staff have received formal training and on- the-job training by participating in the development of Micro-watershed Management Plans and training of local communities in NRM	15 staff have received formal training and on- the-job training by participating in development and implementation of the Micro- watershed Management Plans, training of local communities in NRM, and the design and negotiation of the CES scheme	20 staff have received formal training and on- the-job training by participating in implementation of the Micro- watershed Management Plans, training of local communities in NRM, and the negotiation of contracts under the CES scheme	20 staff have consolidated capacities through 2 years on-the-job training participating in implementation of the Micro- watershed Management Plans, training of local communities in NRM, and the monitoring of the implementation of the CES scheme	20 staff have the required capacities to apply methodologies and instruments to facilitate the development and sustainable management of natural resources using a watershed approach in the Chimborazo province	Training material and modules used, list of participants in each module, six monthly PPR	CHPC
ICP strengthening in their capacity to develop Policy and ulations on NRM nsidering biodiversity nservation for the Province of imborazo. least four provincial finances or appropriate truments considering iversity conservation in key ctors (Protection of water ings, forestry, tourism and nagement of camelids) veloped, issued and enforced the end of the project based the micro-watershed nagement plans zoning and e regulations for the selected bject sites atural resources management onitoring system designed by e end of year two and erating for the project sites by e end of year 4	Low capacities and very limited NRM policy	5 CHPC staff trained in NRM policies and regulation. Draft policy developed	Policy presented to the provincial council for approval	Draft ordinances or appropriate instruments applied	Draft policy, minutes of Council meeting, six monthly PPR	Draft policy, minutes of Council meeting, six monthly PPR	Approved ordinances/ instruments, six monthly PPR	CHPC and provincial stakeholders
	Ordinance for water spring protection exists		Regulatory gap analysis completed	Draft ordinances or appropriate instruments on biodiversity conservation in forestry, tourism and management of camelids developed and consulted	Legal instruments on biodiversity conservation in Forestry, tourism and management of camelids Completed and approved	Ordinances or appropriate instruments applied		
	CHPC has a GIS of the Province including some data on land use and vegetation cover, but no systematic monitoring exists.	M&E system designed	M&E operational in one project site	M&E operational in two project sites	M&E operational in three project sites		M&E system final design report, monitoring reports produced by the system, BPPP six monthly PPR	CHPC
Intermediate outcomes:								

CHPC has the capacity to issue policy and regulations and to supervise and monitor the management status of natural resources in the Province.	No NR policy exists, ordinance for water spring protection exists but is not applied, no NR monitoring system exists		NR policy presented to the provincial council		4 provincial NR ordinances or appropriate instruments are applied. M&E system operational in three project sites		Midterm evaluation, APPR	CHPC
Outcome: Provincial Government capable of supervising and promoting of the sustainable management of natural resources considering biodiversity conservation in the Province	Lack of provincial NR ordinances and weak application in the communities. No systematic information on the threats and status of NR is available to support the planning of supervision activities and community awareness raising and capacity building				90% of local communities benefiting from the project know and apply the provincial ordinances or appropriate instruments	Information produced by the M&E system is systematically used to plan supervision activities and community awareness raising and capacity building	Final evaluation, APPR	CHPC

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)

No Comments were received from Council members, other Agencies, STAP and the GEF Secretariat.

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

<i>Position Titles</i>	<i>\$/ person months</i>	<i>Estimated person months</i>	<i>Total</i>	<i>Tasks to be performed</i>
For Project Management financed by GEF				
Local				
Project coordinator	2,500	60	150,000	See draft terms of reference in project document annex 4
Financil and accounting assistant	1,200	60	72,000	See draft terms of reference in project document annex 4
Project monitoring and evaluation specialist	2,000	4	8,000	Setting up the project monitoring system and training of project team
Evaluation specialists	2,000	6	12,000	External independent consultants for midterm and final evaluation. Conduct surveys among project stakeholders and beneficiaries and evaluate to what extent the project is achieving project objectives and outcomes and providing recommendations for corrections in project implementation (mid term) and lessons learned (final).
Sub total		130	242,000	
International				
	0	0	0	
Sub total		0	0	
Justification for Travel, if any: USD 55,000 are budgeted for local travel paying for transport of project management staff between the selected watersheds Details for Office facilities, equipment, vehicles and communications: USD 6,000 (GEF) and USD 24,000 (CHPC) for office material and supplies; USD 40,000 (GEF) for furniture, computers, printers, copy machine, digital camera; USD 6,000 (GEF) for maintenance of equipment; USD 8,000 (GEF) for communication; and USD 60,000 (CHPC) for office space.				
For Technical Assistance financed by GEF				
Local				
Subproject Procurement Assistance	1,200	48	57,600	See draft terms of reference in project document annex 4
Agronomist/ecologist specialized in Andean agro-ecosystems	1,500	48	72,000	See draft terms of reference in project document annex 4
NRM and local land use planning specialist	1,500	59	88,500	See draft terms of reference in project document annex 4
Social specialist -community promotion/ communication and workshop facilitator	1,500	55	82,500	See draft terms of reference in project document annex 4
Hydrologist specialized in Andean water systems	2,000	6	12,000	Development of hydrological model for pilot watersheds for CES mechanism including the influence of climate variability and different conservation measures in the paramos increasing water production. Contribute to the Compensation value assessment of conservation services of headwaters provided by mountain communities managing the ecosystems of the upper parts of the micro-watersheds
Natural resource economist	2,500	4	10,000	Compensation value assessment of conservation services of headwaters provided by mountain communities managing the ecosystems of the upper parts of the micro-watersheds including the páramos. Analysis of options for water users (irrigation association, hydroelectric power plants) compensation schemes.
ecologist/biologist specialist in conservation and sustainable management of Andean water resources	2,000	6	12,000	Contribute to the Compensation value assessment of conservation services of headwaters definition of criteria for eligibility of beneficiary communities, contract conditions, and means of verification of compliance with conservation services as part of the CES mechanism. Support the implementation of the pilot CES contracts including verification of compliance.

PES mechanism specialist	2,500	6	15,000	Design of CES mechanism including criteria for eligibility of beneficiary communities, contract conditions, and means of verification of compliance with conservation services. Support the negotiation and implementation of the pilot CES contracts including verification of compliance
Ecologist/biologist specialized in páramo ecosystem conservation	2,000	15	30,000	Definition of conservation priorities and co-management activities for co-management plans of the Chimborazo Reserve. Technical assistance to communities in implementation of co-management activities
Ecologist/ biologist specialized in park co-management and community NR conservation	2,000	15	30,000	Design of co-management plans with local communities based on other co-management experiences in Ecuador and in the region and participatory priority setting and agreement of management activities. Technical assistance to communities in implementation of co-management activities
2 community promotion and communication specialist	1,200	24	28,800	Support the ecologist/biologist in community promotion and facilitation of workshops with communities living in the Chimborazo Reserve and its buffer zone.
Rural micro enterprise specialist	2,000	12	24,000	Design and implementation of programme for the development of local capacities, provision of equipment and implementation of capture, shearing, processing and marketing of the vicuña fibers. Technical assistance to local communities in the establishment of micro-enterprises for vicuña fibres and tourist products and services
Legal environmental specialist specialized in regulation of Andean NR	2,500	4	10,000	Analysis of legal NR framework and gaps in the Chimborazo province and recommendations on development of local legal instruments
Sub total		302	472,400	
International				
Specialist in vicuña management, capture and shearing	9,000	3	27,000	Contribute with experiences from the region to the design and implementation of programme for the development of local capacities, provision of equipment and implementation of capture, shearing, processing and marketing of the vicuña fibers in based on sustainable management of the specie and in accordance with the CITES convention.
NRM policy and governance specialist with experience in the social context of páramos	6,375	4	25,500	Technical assistance to the CHPC in the development of capacities in NRM in the Province including the development and implementation of policies and regulations based on experiences from the region.
Subtotal		7	52,500	
Justification for Travel, if any: Travel costs for field work (local transport and DSA) will be included in the consultancy contracts and international flight tickets will be included in the contracts for the international consultants. For further details please see detailed budget in Annex 2 in the Project Document.				

Please note that the World Bank has been implementing this PPG

- A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.** The PPG objectives have all been achieved.
- B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:** Please see part II G above
- C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:**

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To-date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
1. Preparation of updated geographic information on land use and status of native vegetation (to aid in site selection)	completed	10,000.00	10,000.00		0.00	50,000.00
2. Develop TOR to update the Strategic Plan for the conservation of highland ecosystems	completed	5,000.00	1,000.00		4,000.00	10,000.00
3. Development of criteria for site selection	completed	5,000.00	1,000.00		4,000.00	5,000.00
4. Carry out assessment to define opportunities for PES pilot program (water users inventory)	completed	15,000.00	14,595.93		404.07	25,000.00
5. Develop proposal for partnership arrangements for project implementation (including Project Operational Manual)	completed	5,000.00	6,000.00		-1,000.00	20,000.00
6. Environmental Assessment	completed	10,000.00	9,600.00		400.00	0.00
7. Social Assessment	completed	10,000.00			10,000.00	10,000.00
8. Feasibility study to assess potential of community ecotourism	completed	10,000.00	10,000.00		0.00	10,000.00
9. Project management costs	partially implemented	30,000.00	20,566.94		9,433.06	80,000.00
Total		100,000.00	72,762.87		27,237.13	210,000.00

ANNEX E: CALENDAR OF EXPECTED REFLOWS

N/A

