



PROJECT IDENTIFICATION FORM (PIF) ¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: **GEF Trust Fund**

PART I: PROJECT IDENTIFICATION

Project Title:	Conservation and Sustainable Use of High-Andean Ecosystems of Peru through Compensation of Environmental Services for Rural Poverty Alleviation and Social Inclusion		
Country(ies):	Peru	GEF Project ID: ²	
GEF Agency(ies):	IFAD	GEF Agency Project ID:	4773
Other Executing Partner(s):	Ministry of Environment (MINAM) of Peru	Submission Date:	01/09/2012
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	60
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>	n/a	Agency Fee (\$):	535,455

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
(select) BD-2	Outcome 2.1: Increase in sustainably managed landscapes in the High Andes that integrate biodiversity conservation	Output 2.1.1. At least 25,000 hectares in High Andes ecosystems incorporate valuation systems for biodiversity and ecosystem services	GEFTF	2,364,000	10,350,000
	Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks	Output 2.2.1: Three payment for ecosystem services (PES) systems officially established following Peruvian regulations	GEFTF	2,735,625	15,450,000
Sub-Total				5,099,625	25,800,000
Project Management Cost ⁴			GEFTF	254,920	3,200,000
Total Project Cost				5,354,545	29,000,000

¹ It is very important to consult the PIF preparation guidelines when completing this template

² Project ID number will be assigned by GEFSEC

³ Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionally to focal areas based on focal area project grant amount

B. PROJECT FRAMEWORK

Project Objective: To protect and sustainably use High Andes ecosystems of Peru that provide environmental services, especially biodiversity and water, by transferring economic resources from downstream beneficiaries to upstream rural communities						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
Component 1. Conservation and Sustainable Management of High Andes ecosystems	Inv	Outcome 1.1: Conservation and/or sustainable use of at least 25,000 hectares of High Andes ecosystems and landscapes	(i) Conservation and restoration of at least 9,000 hectares of high-altitude relict forests (6,000 has in Cañete and 3,000 has in Santa); (ii) Conservation, rehabilitation, improvement and sustainable management of at least 4,000 hectares of <i>bofedales</i> ; (iii) Conservation and sustainable use of at least 12,000 hectares of other wetlands (<i>pajonales</i> , <i>páramos</i>), mountain forests and rangelands in the <i>altiplano</i> and rivers' headwaters.	GEFTF	2,364,000	10,350,000
Component 2. Improvement of the Institutional Framework for ES in Peru for Implementation of PES/CES schemes	TA	Outcome 2.1: Three PES/CES schemes in High Andean watersheds designed and operational, contributing to conservation	(iv) Three watershed committees established (CRHCs); (v) Two trust funds established for PES schemes; (vi) Law for ES under implementation and rules developed; (vii) Monitoring and evaluation system established	GEFTF	2,735,625	15,450,000
Sub-Total					5,099,625	25,800,000
Project Management Cost ⁵				GEFTF	254,920	3,200,000
Total Project Costs					5,354,545	29,000,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	IFAD	Hard Loan	29,000,000
Total Cofinancing			29,000,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

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

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

² Please indicate fees related to this project.

⁵ Same as footnote #3.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. The GEF focal area/LDCF/SCCF strategies/NPIF Initiative:

1. The GEF proposal (described in detail in B.2 below) will protect **High Andean ecosystems** that are not receiving enough attention and/or being adequately managed due to isolation, sparse population in surrounding areas and conservation biases⁶. However, these strategic ecosystems contain valuable species and provide critical environmental services, most notably water, that can be reduced in quality and quantity, or even lost, if proper measures to stop environmental degradation (overgrazing, deforestation, pollution, etc) are not put in place.

2. Over the last two decades, several studies⁷ have recognized the role of **market-based mechanisms** for biodiversity conservation, complementing the classical command and control tools, which include reserves, parks and other types of in-situ conservation measures. In particular, market-based approaches, such as payment and/or compensation for environmental services (PES/CES), can not only help ensure protection of important ecosystems, but, if properly designed, also generate resources and other incentives that can benefit the poor and facilitate their participation⁸.

3. The GEF project will apply PES/CES approaches to restore, conserve, improve and/or use sustainably valuable biodiversity and ecosystems in the central High Andes of Peru (*bofedales*, relict high-altitude forests, *pajonales* and other related). The project will assess and put into value the main environmental service (water provision) delivered by these critical (but usually neglected) biodiversity-rich ecosystems, allowing a flow of resources that will help reduce pressure over forests and wetlands and will complement current efforts for the protection of these ecosystems.

4. Under this approach, the project will contribute to Objective 2 of the GEF-5 **Biodiversity Focal Area**, "Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors". The GEF project will help improve and mainstream biodiversity conservation in the High Andes, using a two-pronged strategy: (i) The project will ensure that economic value is assigned to water (as environmental service), facilitating the transfer of economic resources from beneficiaries downstream to poor upstream communities which will in their turn ensure the provision of this service from the upper watersheds. This compensation will provide local inhabitants with extra incentives to improve their current practices that are damaging biodiversity resources, while complementing actions carried out by MINAM and other actors; and (ii) The project will support Peruvian authorities in the application of national regulations for water and environmental services, through the implementation of PES/CES in three watersheds.

5. The project will also contribute to improve the livelihoods of local communities, while at the same time maintaining or enhancing the flow of services through the adequate management of ecosystems and agroecosystems. The project aims at involving relevant water users (such as the agricultural sector, domestic users, industry, hydroelectricity generation and mining) in this collaboration

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

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

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

6. The project is consistent with the **National Strategic Development Plan 2021**, which provides a route map for Peru's development in the next 10 years. It includes aspects related to the fundamental rights and dignity of its people, a competitive economy that generates jobs and sustainable use of natural resources. It recognizes that Peru is subject to international trends and some of these include globalization, democracy, information technologies, a new economic order in the Pacific Basin, awareness about the environment and a preference for the protection of nature.

⁶ Chávez, J. et al, (2005). *Las Áreas Naturales Protegidas del Perú: Informe Nacional* (INRENA, Lima)

⁷ One of the most recent and comprehensive outlooks was prepared by The Economics of Ecosystems and Biodiversity study: TEEB (2010). *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB*. Available at <http://www.teebweb.org/TEEBSynthesis-Report/tabid/29410/Default.aspx>

⁸ Vatn, A. et al (2011). *Can Markets Protect Biodiversity? An Evaluation of Different Financial Mechanisms*. Noragric Report No. 60. Norwegian University of Life Sciences (UMB). Norway

7. The project is also well aligned with the **National Environmental Policy**⁹ (PAN, in Spanish) as reflected in the **National Environmental Action Plan 2011-2021** (PLANAA, in Spanish) and with the priorities of the Ministry of Environment (MINAM). These priorities include integrated and sustainable water management and the generation of benefits for local communities through the conservation and use of environmental services. The project is consistent with the PAN's first political guideline that deals with the conservation and sustainable use of natural resources and biological diversity. The PLANAA proposes specific goals related to water, biodiversity, and mining that will be advanced or supported by the project. For the water sector, the PLANAA calls for the integrated management of watersheds, with an ecosystem approach that gives priority to ground-water recharge. It also calls for integrating biodiversity into productive landscapes, promoting the participation and commitment of Peruvian society and to improve instruments for managing it. The PLANAA specifically recommends increasing the visibility of environmental services' value for the Peruvian economy and the implementation of payment for environmental services schemes in 10 strategic watersheds by 2021. The GEF project will intervene in direct support of the PLANAA, implementing PES mechanisms in two strategic watersheds. The project will also help develop regional Councils for Watershed Hydric Resources (*Consejos de Recursos Hídricos de Cuencas*, CRHC)¹⁰, which is part of the National Water Authority (ANA) modernization plan in the area of intervention.

8. The proposal is well linked with other global and regional strategies, for example with strategic objectives 2.1 and 6.6 of the **National Strategy for Biological Diversity**¹¹ (ENDB) and the **Regional Strategy for the Conservation and Sustainable Use of High Andean Wetlands**¹², contributing directly to its Objective 3 and indirectly to its Objective 2.

9. Regarding hydrological environmental services, the **Water Resources Law** provides an adequate framework for project activities, as it stipulates an "economic retribution" per cubic meter to all water users as payment for the use of this public resource. The value should be determined according to the costs of integrated water resources management incurred by ANA, including water users' information system and environmental remediation. According to its regulations, the amounts recovered should be used to pay for the formulation of water management plans in each watershed, manage water sources, and protection and control activities intended to protect water quality, increase the supply of water and the protection of sources. All this sets the stage for the implementation of PES/CES schemes.

10. Additionally, and in an effort to norm specific aspects, a draft text of a **Law for Environmental Services** is being currently discussed. The draft text outlines how a PES/CES system would look like in Peru and the responsibilities of the different Government institutions and other stakeholders, assigning the leading role to MINAM. The GEF project will support the development of the institutional framework for environmental services in the country in two ways: (a) direct support to MINAM for the preparation of rules for its application, and (b) application of the Environmental Service Law, once approved, through three pilot cases (see project description below).

B. PROJECT OVERVIEW:

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

A megadiverse country

11. Peru is known as one of the world's 10 **megadiverse** countries, for its rich diversity in ecosystems, species, genetic resources and culture. According to the ENDB, Peru's biodiversity is one of the pillars of its national economy, plays a direct role in sustaining a large part of the population, has an important role for culture, science and technology and provides essential environmental services in terms of water supply, soil fertility, air quality and carbon sequestration. Peru hosts about 25,000 plant species (10% of the world total) with 30% endemism. Of these, 4,400 species have known properties and are used by the population. Peru is also rich in ecosystem biodiversity with the major biomes being marine, mountain, forest, freshwater and agricultural ecosystems.

⁹ Accessible at: http://www.minam.gob.pe/index.php?option=com_docman&Itemid=65

¹⁰ According to the Water Law, each CRHC will be composed of the following institutions: (a) ANA; (b) regional government; (c) local governments; (d) water users' associations; (e) professional associations, and (f) regional universities.

¹¹ CONAM (2001). *Perú: Estrategia Nacional sobre Diversidad Biológica*. Lima

¹² *Estrategia Regional de Conservación y Uso Sostenible de los Humedales Altoandinos. Agua, Vida, Futuro* (CONDESAN, 2008).

12. The **High Andean bioregions** (between 3,000 and 4,500 meters) contain extremely valuable ecosystems and landscapes with a high percentage of endemic species and unique diversity, which are greatly important as freshwater sources. In Peru these bioregions include the *páramos* and *jalcas*, treeless mountain ecosystems rich in rich flora (shrubs and pastures), including *pajonales* (Poaceae grasses), *bofedales* (peat swamps) and other wetlands, as well as relict forests (*queñuales*, dominated by *Polylepis* sp.) and endangered species such as *Puya raimondi*. The *bofedales* function like sponges absorbing rainwater and water from glacier streams and springs, and filtering and releasing it into other ecosystems, which is the main service provided by these ecosystems, together with carbon storage. They have an important socioeconomic role, allowing the raising of livestock (llamas and alpacas), the main activity in this area, aside from extractive mining.

13. *Bofedales*, *páramos*, relict high-altitude forests and *pajonales* occupy around 15 % of the national area (table 1), and help regulate and provide water to the Pacific coast, where lives more than half the total population and where the economic activity is concentrated, although it only receives less than 2 % of total water available in the country (the rest goes to the Atlantic basin).

14. These nature systems are nevertheless **very fragile and prone to desertification**, due to both natural causes and anthropic threats. Although indigenous use of biodiversity and natural resources could be considered as balanced in Andean societies (for example, traditional Andean agriculture has usually applied suitable technology to take advantage of the diverse ecological floors and the geographic conformation, through terraces of slow formation in highland mountain slopes, known as *andenes*¹³, enabling them to enhance productivity and avoid further degradation), population growth, loss of traditional cultural patterns, demands from agriculture and cities in the coast and new economic activities are degrading natural resources and biodiversity in the precarious Andean environment. Overgrazing, soil erosion, deforestation for fuel and wood collection, intensification of land use, uncontrolled mining, urbanization and increased demand for potable water, as well as climate variations (including severe droughts and glacier melting), are threatening these ecosystems and wetlands.

Baseline situation: Current conservation measures are insufficient and environmental services are undervalued

15. **Current conservation measures are insufficient.** However important, High Andean systems are not properly represented in the National System for Protected Areas (SNAP), which covers nearly 14 % of the national territory¹⁴. The SNAP includes a few wetlands of international interest (such as Salinas Agua Blanca) and some protected areas within the Andean range, but lack of resources means that **nearly 90 % of these high-altitude ecosystems are unprotected** (table 1). High levels of poverty in rural areas (nearly 66 % of those living in Andean regions were poor¹⁵) prevent most Andean communities and municipalities from collaborating in their conservation.

Table 1. Extension and Protection of Important High Andean Ecosystems in Perú

Ecosystem	Total area		Protected (SNAP)		Within mining concessions		Unprotected	
	(ha)	% of nati area	(ha)	%	(ha)	%	(ha)	%
High Andes Relict Forest	67 992	0.05	7 409	10.90	36 132	53.14	24 452	35.96
Pajonal	18 780 869	14.61	1 112 489	5.92	16 494 446	87.83	1 173 935	6.25
Bofedal	495 567	0.39	27 964	5.64	186 938	37.72	280 665	56.64
Páramo	179 751	0.14	13 767	7.66	54 283	30.20	111 701	62.14

Source: Estimates provided by Dirección de Ordenamiento Territorial, MINAM

16. On the other hand, the **economic value of High Andean ecosystem services** (water, biodiversity, carbon capture, landscape, etc) are currently undervalued, if at all. In the case of water, a critical resource for Peru's development, those who could contribute to their protection (*altiplano* and upstream communities) are not receiving a fair share for the services they help provide to users downstream (agriculture, mining companies, cities, etc). As a result, these valuable resources are facing threats from many sources, while opportunities for rural development, poverty alleviation and nature protection are missed. The country has only two ongoing PES (Moyobamba and Jequetepaque), but although they offer interesting insights, both are very limited in scope and results. Other

¹³ Peru has approximately one million hectares of agricultural terraces (*andenes*) on highland mountain slopes, of which less than 20% are being used properly, the rest are deteriorated due to inappropriate farming practices (Winograd, 1995)

¹⁴ MINAM (2009). *Indicadores Ambientales Perú 2008*. Iniciativa Latinoamericana y Caribeña para el Desarrollo Sostenible (Lima)

¹⁵ Instituto Nacional de Estadística e Informática (INEI), <http://www.inei.gob.pe>

schemes are being discussed (Rimac, Chili, Ayacucho, Yanachaga and Nanay, among them), but are far from being operational.

17. Recognizing these realities, the new government of Peru is proposing specific measures that can improve the generation, access and use of water in the country, contributing to a more balanced development model, economically, socially and environmentally. Under the vision of social inclusion and consensus, the government will support the **sustainable use of natural resources**, especially water, promoting watershed management, revegetation of *altiplano* pastures, reforestation of mountain slopes and conservation of wetlands, that could result in multiples benefits. Furthermore, the new administration, led by MINAM, believes that the **economic valuation of environmental services** can help achieve sustainable rural poverty, and reduce conflicts between resource users, making them compatible¹⁶ (mining, forestry, etc). There are indeed clear opportunities to engage water users in the lower sections of the watersheds and create voluntary environmental services markets, and some pilot experiences have begun in the country (mainly Moyobamba and Cañete, although there are interest in other initiatives), but they are for the moment isolated, and not part of a programmatic action (nonetheless because of lack of resources).

Baseline project: IFAD operation

18. Within this context, **IFAD has planned a new operation in the country** that will contribute to reducing rural poverty in the areas of intervention, improve the management capacity of local governments to meet the relevant requirements of the rural poor for their self-development, strengthening the capacities of groups and associations of the rural poor to participate fully in local and regional development, and allowing local groups and associations to improve natural resources, undertake profitable enterprises in a wide range of initiatives, and access financial services. The approach of this initiative, “Programme for Local Development Support in Highland and High Altitude Rain Forest Areas”, is to deepen the effectiveness, efficiency and relevance of public investment from central and local governments to improve the welfare of the rural population and increase the value of their natural, physical, human, social and financial assets.

19. The area of the IFAD project includes the central and northern *Sierra* and a small portion of the high rain forest region in the department of San Martin. The *Sierra* covers territories within the Western Cordillera of the Peruvian Andes; including eco-regions of mountainous steppe, *Puna* with inter Andean valleys and *Paramo*. In this zone, the project area comprises provinces and districts in the department of Lima, Ancash, Cajamarca, Amazonas and Piura. The IFAD program will not target ecosystem conservation per se, but will create the conditions for better social organization, and will provide additional resources for sustainable productive activities and complementary actions for natural resource management.

20. The project will invest a total of US\$ 36.5 million in the area of intervention, and will be organized into three components: (i) Strengthening the decentralized management of local development (75 % of total investment); (ii) Scaling up and appropriation of operational modalities by local stakeholders (15 %), and (iii) Improvement of operational capacities (remaining 10 %).

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

Incremental GEF contribution for conservation and implementation of Environmental Services schemes

21. Despite this interest on using Environmental Service (ES) valuation as an important conservation (and socioeconomic) tool, the government of Peru is not in a position to fund all of the start-up costs required. A tight fiscal situation is already impacting in government programs, including environmental initiatives. And even though Peruvian law explicitly considers an “economic retribution” to the State for the use of water, part of which should be invested in protecting the watersheds, the reality is that there was little progress in determining proper values to charge the different activities and even less in making sure that these funds are collected and used properly. Therefore investments aimed at solving these issues will bring important benefits. Given the size of sectors that depend on water, such as mining or hydroelectricity generation, the potential for revenue generation is potentially high.

¹⁶ The country is facing a dilemma regarding mining, an activity that generates economic benefits, but also environmental liabilities. And sustainable mining is seen as the only solution to reap the benefits, and limiting the costs of this economic activity. As a result there will be interest, from socially responsible companies, in forming strategic partnerships that result in better water management, biodiversity protection and poverty alleviation.

22. The Government is proposing, as part of the PLANAA, a national program that would implement PES schemes in the 10 most important watersheds, but it will not be able to achieve it without additional resources to cover preparatory assessments and activities and transaction costs. Although different actors have promoted the idea of using PES schemes to fund the protection and sustainable use of biodiversity in the country, and there have been advances with some pilots (e.g. Cañete, Jequetepeque and Moyobamba), they have been limited to preparatory studies, analysis of legal frameworks and small pilot projects. There is still no permanently funded scheme operating with revenues from a sustainable source. Furthermore, the country has no extensive experience in PES mechanisms, and would benefit greatly from comprehensive efforts to put into practice new initiatives linked to conservation that can be systematized and used as references.

23. In this regard, the present GEF proposal intends to preserve important high-altitude ecosystems and landscapes through the implementation of PES/CES schemes in High Andes landscapes that lead to improved agricultural and productive practices friendly with biodiversity and the water cycle. The GEF **project will reduce the degradation** and improve important relict forests and wetlands of Perú, promoting changes in behavior from natural resource users, including cattle producers, farmers and subsistence agriculture, through the provision of economic incentives that reduce the degradation of ecosystems of global value. To achieve this objective, the project will allow the transfer of financial resources from water users that benefit from the existence of such ecosystems, to rural communities, groups and families that can help preserve them.

24. The proposed project will take advantage of the clear links between water and biodiversity in the *altiplano* to establish partnerships between water users (beneficiaries of this ES) and those who protect biodiversity in the High Andes (sellers of the ES), promoting the creation of voluntary agreements between high-volume economic users of water (downstream), and poor communities upstream that could modify their behavior in exchange for economic incentives.

25. This GEF intervention will also provide much needed start-up costs, compensating providers who commit to the generation of environmental services. These payments will allow for a quick start, and the immediate protection of important biodiversity resources while permanent funding sources are secured. By injecting resources to the fiduciary funds, a positive signal will be sent to local actors and to future ES beneficiaries.

Geographic scope

26. The project will be implemented in **three watersheds** with different degrees of progress in the use of economic instruments for biodiversity protection and sustainable use: Cañete (Lima region), Santa (Ancash) and Shullcas (Huancayo). These watersheds were selected because of the presence of important High Andes ecosystems (*bofedales*, *queñuales*, etc), threats and pressure from resource users, poverty levels, existing efforts for the generation of studies and information for the design of PES schemes, water supply for hydroelectricity generation and mining and agricultural activities, and combined action with the associated IFAD programme.

27. As discussed above, mechanisms based on payment/compensation for environmental services are viable and recommended option to make the conservation of these ecosystems more attractive to different stakeholders (hydroelectric, water distribution and mining companies) by providing payments to those individuals and communities that engage in the conservation and sustainable use of biodiversity. Perverse incentives to mismanage it should be reduced and the proper incentives introduced. Currently there are water users that not only use enormous quantities of water but also pollute it. Transfers of funds from those users to the people that can take action to protect it are justified.

Project description and expected global environmental benefits

28. The **project's objective** is to protect and use sustainably High Andes ecosystems that provide environmental services, especially water, by transferring economic resources from downstream beneficiaries to upstream rural communities providing them. Specific objectives are (a) the conservation and sustainable management of High Andes ecosystems, and (b) the improvement of the institutional framework for ES in Peru through implementation of PES/CES schemes. The GEF project will be organized into two components, as follows:

29. **Component 1**, "Conservation and Sustainable Management of High Andes Ecosystems", will have as outcome the conservation and/or sustainable use of at least 25,000 hectares of High Andes ecosystems and landscapes, including relict forests, *bofedales* and other wetlands, using PES/CES schemes centered in better water management. In particular, the GEF intervention will include conservation and proper management of ecosystems, as well as improvement of agriculture productive activities (sustainable grazing systems, sustainable land management, etc) that will result in a better delivery of water.

30. **Activities.** This component will finance the following activities: (a) conservation of relict forest land (mainly *queñuales*), including rehabilitation of degraded forests through participatory methods, and forest inventories; (b) conservation and restoration of *bofedales* and other related high Andean wetlands; (c) conservation and rehabilitation of *páramos*, *jalcas* and *pajonales*; (d) improved management of forest rangelands and rehabilitation activities on important rangeland surrounding mountain forest land, and (e) promotion of sustainable agriculture, including river bank protection and promotion of environment-friendly practices, that can result in better protection of biodiversity and water provision.

31. The project will achieve the following **environmental benefits**: (i) Conservation and restoration of at least 9,000 hectares of high-altitude relict forests (6,000 has in Cañete and 3,000 has in Santa); (ii) Conservation, rehabilitation, improvement and sustainable management of at least 4,000 hectares of *bofedales* (2,400 has in Cañete and the remaining amount in Santa); and (iii) Conservation and sustainable use of at least 12,000 hectares of other wetlands (*pajonales*, *páramos*), mountain forests and rangelands in the *altiplano* and rivers' headwaters. These achievements will contribute to the following global environmental benefits: (a) protection of species that are important for maintaining biological diversity; (b) conservation of important and significant natural habitats for in-situ conservation of biological diversity, including endemisms, vulnerable species and threatened ecological communities; (c) regulation and provision of ecological services, mainly water for different (but critical) uses.

32. Through **Component 2**, "Improvement of the Institutional Framework for ES in Peru through Implementation of PES/CES schemes", the GEF project will implement the "economic retribution" with at least two sectors benefiting from water-related ecosystem services. The purpose of these schemes is to allow water-related ecosystem services beneficiaries to keep benefiting from maintaining or improving water levels in quantity, quality and regularity, while reciprocating these benefits to ecosystem services providers/managers. It is expected that this reciprocity in the form of economic incentives will promote the sustainable use of the ecosystems (and the biodiversity that they contain) which provide these services. The actual definite value to be transferred from beneficiaries to providers will be determined during project design and taking into consideration current efforts of MINAM and its partners at valuing the water-related ecosystems services for different sectors as well as the opportunity costs for ES providers.

33. **Activities.** GEF funds will support the preparatory activities and start-up costs to make the PES/CES operational. The project will create three watershed committees (CRHCs), that on its part will establish 2 trust funds¹⁷ (Cañete and Santa) to provide incentives to environmental services providers. Activities will include the capitalization of the trust funds, the definition of procedures and development of operation manuals, the establishment of a national dialogue with relevant stakeholders, the analysis of the legal framework (some of which have been already started in Cañete) and the negotiation with ES beneficiaries, government agencies, universities and research organizations. MINAM will ensure that these activities are complementary and fully integrated to ongoing dialogues with stakeholders for the creation of PES/CES schemes in the selected watersheds.

34. The project will provide approximately US\$2 million to capitalize the two trust funds. These trust funds will be managed under the coordination of MINAM, and will be administered by a fund manager with experience in environmental initiatives (Fondo de las Americas, FONDAM or PROFONANPE are possible candidates). The fund manager will be proposed during project design. The regional CRHCs, in consultation with MINAM, will decide the activities to be implemented. The trust funds will provide incentives to community organizations and others who engage in the protection of biodiversity and ecosystems until the PES/CES systems are fully operational. The GEF finance will also support the development of the institutional framework for environmental services in the country, helping to implement the Law, once approved, and allowing MINAM to lead the preparation of rules for its application

35. **Outputs of this component** will include: (v) Three watershed committees established; (vi) Two trust funds established for PES schemes; (vii) Rules developed for Law on Environmental Services, and (viii) Monitoring and evaluation system established.

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

¹⁷ Trust funds are common features of PES schemes. In Costa Rica, one of the best known cases, the National Fund for Forestry Financing (FONAFIFO), receives funds from taxes, donations and sales of ES close to US\$10 million/year to pay farmers that commit to conservation activities. In Quito, the Fund for the Protection of Water receives contributions from water users and then uses it to finance the provision of critical water ecosystem services, including land acquisition.

36. The project will deliver different natural, social and economic benefits by ensuring the provision of environmental services (mainly water, but also other not directly considered here, such as carbon and scenic beauty), as well providing revenues to local communities to engage in the conservation and sustainable use of the landscapes.

37. **Social benefits.** The combined project (IFAD and GEF) will benefit directly 25,000 inhabitants of the intervention area, and indirectly several water users (rural and urban inhabitants, agricultural firms, mining companies, etc) in large areas that receive water from the selected watersheds. The direct benefits will include also institutional strengthening, social organization and additional resources and support from the associated IFAD project. This project will help at least 35% of all beneficiary families to overcome poverty and extreme poverty conditions.

38. **Economic benefits.** The direct economic benefits will include payment collected and distributed through the PES schemes, as well as other indirect benefits such as diversification of rural activities, employment, income security. Rural communities living in the project area make direct use of biodiversity for their daily subsistence, and it is expected that the sustainable management practices being promoted will result in improved livelihoods. The project will also generate national economic benefits ensuring water provision and energy generation, offsetting the negative externalities of economic activities, including agriculture and mining, and by promoting a more sustainable use of biodiversity resources.

39. **Cost-effectiveness.** The GEF project will invest US\$ 5 m to ensure conservation, rehabilitation and sustainable use of at least 25,000 hectares of valuable ecosystems (without management costs), including the establishment and put into practice of three PES mechanisms with relatively high start-up and transaction costs, and the direct and indirect support to the Peruvian national system for environmental valuation. Costs per hectare (US\$ 90/ha) are within accepted standards for conservation¹⁸, especially when considering the direct and indirect environmental, economic and social benefits. PES transaction costs (particularly initial steps, negotiation and start-up) are high, and typically range from 6% to 45% of total PES cost¹⁹. Schemes for watershed services tend to be initially more expensive because of the geographical difficulties (long distances, isolated populations, etc), but initial investments can be partially recovered over time.

40. **Alignment with the GEF Policies on Agency Minimum Standards on Environmental and Social Safeguards and Gender Mainstreaming.** The proposal will observe the IFAD's Environmental and Social Assessment procedures, and the new Gender Policy (to be approved in December 2011), and will also comply with the recommendations on the GEF Policy on Gender Mainstreaming and the Minimum Safeguard Standards. The project design will follow STAP guidance and recommendations on PES (see also tables 2 and 3, and paragraphs 42-44, below).

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

41. The following main risks were identified, together with proposals for mitigating them.

¹⁸ See, for example, an interesting discussion on the economic costs of conservation in Naidoo R. and Ricketts T.H. (2006). *Mapping the economic costs and benefits of conservation*. PLoS Biol 4(11)

¹⁹ Jindal, R. and Kerr, J. (2007). *PES transaction costs*. USAID PES Brief 3.4. USAID

Table 2. main risks and mitigation measures

Risk	Level	Mitigation measures
Lack of coordination between institutions	Medium	The project will encourage coordination and participation through two main mechanisms: a Project Steering Committee to facilitate coordination, communication, interaction and learning among ministries and regional governments. Additionally, each watershed will organize a Watershed Hydric Resources Council (CRHC) to ensure participation at regional level. Also MINAM will ensure that this initiative is integrated in ongoing initiatives focused on the development of supporting studies and activities towards the design of a PES scheme in some of the selected sites (ie. Cañete and Santa watersheds)
Lack of interest from the private sector	Low	The project will make an extra effort to disseminate the important benefits to be gained by participants, as well as the requirements by the national laws and regulations. MINAM has already started consultations with private sector actors in those sites where willingness to cooperate in PES schemes has been confirmed.
Low participation rate from the communities in the High Andes	Low	Together with IFAD's associate project, involve communities through incentives and according to their economic needs and agreed upon criteria
Opposition from social groups.	Low	Awareness program. Good partner selection based upon their environmental and social performance and respect for the national legislation.
Challenges from climate change	Medium	Climate change has been named a main cause of the accelerated melting of High Andes glaciers. However, the project will have a positive role as most activities proposed will help communities and ecosystems increase their resilience and adapt better
Environmental risks	Low	The project will work with socially responsible companies that abide by the environmental laws of Peru. It will also comply with GEF, IFAD and Peru's environmental standards

42. Regarding the use of PES schemes, the project is consistent with the GEF approach, taking into account the recommendations made in 2010²⁰, and guidelines proposed by STAP²¹. The project will **enhance private-sector participation in PES**, and in particular beneficiaries of the environmental services. The project will lay the ground for significant private sector involvement by engaging, among others, hydroelectricity generation and mining companies that have the capacity and interest in participating in these schemes. And even though the law and bylaws provide part of the required enabling environment additional inputs are needed to materialize these expectations.

43. The project proposes to address each of the three "points of entry" identified in the STAP review (op. cit.) in different ways: (i) Set up and pilot direct payments. The project will provide limited initial short-term payments while permanent ES buyers come on board. Payments in the short term will help reverse a trend towards the deterioration of High Andes ecosystems. So far different efforts have gotten to a point where payments need to start happening. Nonetheless, lack of availability of funds has decreased interest from communities. Furthermore, there already are some pre-identified ES users and that additional work is needed to be able to enter into real contractual agreements. For example, in the Cañete watershed the government has been able to reach out to the hydroelectric sector and there are plans for continued collaboration in this field. Other potential users include the mining and agricultural sectors. However, more engagement is needed; (ii) Co-Finance multiple service strategy. While the project is mainly directed to water users, it is possible that many of the areas and the actions considered will provide benefits also in terms of biodiversity and carbon. Therefore, the project could easily link with other initiatives that look towards the sale of other environmental services (layering); (iii) PES start-up costs are known to be high in Peru - sparse landscapes spread over large areas, traditional thinking, and a complicated regulatory framework explain this. However, the project will aim at convincing water users to make recurrent and permanent payments for the environmental services, offsetting these costs.

44. There are additional potential threats or risks associated with the implementation of PES system that have been identified by Paul Ferraro²² (summarized in table 3, below). The project design process will address each of those, promoting specific actions to avoid them (actions could include establishing "price floors", making an adequate selection of partner organizations, simplifying contracts, and requiring quality assurance from ES suppliers).

²⁰ GEF (2010). *Payment for Ecosystem Services*

²¹ STAP (2010). *Payments for Environmental Services and the Global Environment Facility. A STAP Advisory Document*

²² Ibid

Table 3. Potential threats to PES effectiveness

PES related risks	Possible mitigation measures
(i) Non-compliance with contractual conditions	Work with established community organizations; develop clear guidelines; require previous training and involvement with the project before payments are made; require in-kind co-financing from participants.
(ii) Poor administrative selection	Significant experience has been systematized in the region and the world in Payment for Environmental Services. The project will capitalize on these experiences to ensure quality of administration, including work done by STAP, GEF, the Katoomba Group, Forest Trends, International Institute for Environment and Development and others.
(iii) Spatial demand spillovers	The project will make additional efforts in selecting sites, participating organizations, conservation and productive activities that minimize the risk of pushing pressure onto resources elsewhere. However, given the subsistence nature of many economic activities in the High Andes this risk is unlikely.
(iv) Adverse self-selection	Since the project strategy is to work with local organizations it is unlikely that a tendency to demand lower-price but low-quality ES products can occur. However, in order to prevent a "race to the bottom", the project would promote specific actions to avoid them such as price floors, good selection of partner organizations, simple contracts, and quality assurances from ES suppliers

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

45. **Key stakeholders** include the Government, the private sector and local communities and groups in the High Andes. The Government would be involved through the relevant departments, with MINAM in the coordinating role, and other participants would include the National Water Authority, (in charge of the National Water Management System); the Ministry of Energy and Mines, and the Ministry of Women and Social Development, tasked with social inclusion. From the private sector it would be important to include potential beneficiaries, namely: agricultural and cattle producers in the lower watersheds; hydro-electricity generation companies; and the mining sector. Other important actors include the municipalities, local development and producers' associations, agricultural extension outfits and non-governmental organizations.

46. The Project will be implemented by MINAM, under the coordination of the Economic Valuation Department of MINAM (with the mandate of increasing the value of ecosystems for land users), and in collaboration with other MINAM departments involved. MINAM will collaborate with the National Water Authority and other ministries, as appropriate. Other main executing partners will be the Regional Governments of Ancash, Lima and Huancayo, with whom the MINAM has already signed (Lima) or will sign (the other two) Memorandums of Understanding. A Project Steering Committee will be set-up to facilitate coordination, communication, interaction and learning among these institutions. Additionally, each watershed will organize a Watershed Hydric Resources Council (CRHC) to allow participation at regional level.

47. **Public and social participation.** Municipalities and rural communities will also have a role in the implementation of activities, and they will be included in the project through specific agreements to be signed, and their participation in the CRHCs will be encouraged. Specialized NGOs and Research Centers will be project partners as well. In particular, CIAT-CPWF, WWF and CARE, which have been already participating in the design of a PES scheme in Cañete, will be consulted so as to promote synergies and avoid duplication.

48. **Local capacities.** The project will, through the CRHCs, strengthen and support local capacities needed for proper implementation and management of the PES systems.

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

49. This proposal, prepared by request of MINAM, will capitalize on existing and planned experiences on PES in the country, especially those that are more advanced. The experience of Moyobamba, supported by GiZ and other partners, will be especially relevant for this project, as well as the one in Jequetepeque (with participation of WWF, CARE and local actors). The project will be also coordinated or articulated with other relevant MINAM activities in the country, such as the inventory and assessment of the natural wealth in Nor Yauyos and the participatory design of a PES for Cañete, where there has been some progress with diagnosis and feasibility studies.

50. This proposal will also coordinate and learn from other similar initiatives, most notably the GEF project for the “Conservation of the Biodiversity of the Paramo in the Northern and Central Andes”, as well as other related activities promoted by CONDESAN, Ecodesarrollo and the CGIAR’s Challenge Program on Water and Food (CPWF) (that currently support two research projects on PES in Cañete through CIAT, and with MINAM, CARE and WWF in the Santa river basin).

51. The project will also link with local level initiatives. In the Ancash province there is a “regional development plan 2008-2021” that guides public policy and has proposals in many different areas, including the protection of the environment, water management and specifically water harvesting and land management. The project must take advantage of such efforts and detect synergies to mainstream biodiversity conservation in productive activities.

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

52. IFAD considers the Payment/Compensation for Environmental Services (PES/CES) schemes, including watershed restoration and maintenance, as potential sources of substantial financing to support rural communities’ management of their natural assets, to provide , and to provide benefits to downstream water users or other communities. Several IFAD projects include PES/CES mechanisms to ensure environmental sustainability and agricultural diversification (in countries such as Rwanda, Vietnam and Kenya).

53. IFAD, in collaboration with the World Agroforestry Centre (ICRAF), has been supporting innovative techniques in Africa for promoting PES through negotiated environmental service contracts with poor communities based on the principles of ‘willingness to provide services’ and ‘willingness to pay’, through the “Pro-poor Rewards for Environmental Services in Africa (PRESA)”.

54. Similar work with ICRAF is ongoing in Asia, where the “Programme for Developing Mechanisms to Reward the Upland Poor of Asia for the Environment Services They Provide” (RUPES) is currently active in 12 sites, allowing uplands communities and farmers to receive direct and indirect benefits for protecting watersheds and forests.

55. As a GEF agency, IFAD is specialized in sustainable use of natural resources and biodiversity, climate change adaptation and mitigation, and sustainable land management. IFAD has currently six projects under execution (in Peru, Morocco, Vietnam, Brazil and South-East Asia) that include PES components, mobilizing a total cofinancing of nearly US\$ 70 m. IFAD is also an active partner in the implementation of the GEF Sustainable Forest Management Strategy, with six projects in Latin America and Asia, normally associated to PES/CES (water and REDD+) schemes.

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

56. The present proposal will be associated to the IFAD-supported “Programme for Local Development Support in Highland and High Altitude Rain Forest Areas”, described in sections B.1 and B.2 above. The total cost of the associated program is US\$ 36.5 million, to be funded mainly by IFAD through a loan for a total of US\$ 29 million (representing 79.5% of total programme costs). The cofinancing from the National Government will amount to US\$ 2 million (5.5% of total cost). Local governments will contribute US\$ 1.8 million (4.9%), and beneficiaries US\$ 3.7 million (10.1%). Given the new GEF requirements for cofinancing, the PIF includes only the IFAD contribution (US\$ 29 million) in Part I, tables A, B and C.

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

IFAD Strategic Framework

57. This proposal will assist both the Government of Peru, the GEF and IFAD meet important commitments. IFAD approved last May its new **Strategic Framework 2011-2015**²³, whose overarching goal is IFAD’s overarching goal is to enable poor rural people to improve their food security, raise their incomes and strengthen their resilience. This goal is underpinned by five Strategic Objectives, among them the following: (a) A natural resource and economic asset base for poor rural women and men that is more resilient to climate change, environmental degradation and market transformation; (b) Poor rural women and men and their organizations able to manage profitable, sustainable and resilient farm and non-farm enterprises or take advantage of decent work opportunities; and (c) Enabling institutional and policy environments to support agricultural production and the full range of related non-farm activities.

²³ IFAD’s **Strategic Framework 2011-2015**, available at <http://www.ifad.org/sf/>

58. IFAD will continue to concentrate its efforts in a number of thematic areas of direct relevance to its mandate and comparative advantages. These reflect both the continued factors of poverty among rural households and IFAD's understanding of new risks and opportunities linked to a new global environment. The first priority will be **natural resources** (land, water, energy and biodiversity), helping poor rural women and men to manage these resources more efficiently and sustainably, addressing resource degradation and adapting to growing resource scarcities. IFAD will put special emphasis on opportunities from the conservation and provision of environmental services, seeking to improve agricultural productivity and raise non-farm incomes.

IFAD Policy for Natural Resources

59. The proposal will be also aligned with the new IFAD's **Policy for Environment and Natural Resource Management**²⁴, which recommends greater attention to opportunities from sound management of natural resources, and promotes livelihood diversification to reduce vulnerability and build resilience for sustainable natural resource management. The new Policy also promotes the improvement of natural asset governance through economic valuation of natural resources and strengthening the social organization of rural communities.

IFAD Country Strategy

60. The proposed GEF project is fully consistent with the Results-based Country Strategic Opportunities Programme (RB-COSOP) of IFAD for Peru²⁵, whose first Strategic Objective promote the "Improved management knowledge and technical capacities of rural communities to further sustainable use and control of natural resources and physical assets". This objective is built on the recognition that in the extensive Highlands area of Peru where poverty is concentrated, the poor condition of natural resources and other assets limits people's ability to achieve the outputs needed to sustain their households' wellbeing. The aim is to create sustainable wealth by rehabilitating or improving the natural assets owned or accessed by community members, enabling them to manage the assets themselves and building social capital for collective action.

Supervision and implementation support

61. This project will be supervised by IFAD, under the Fund's direct supervision modality, seeking to achieve the objectives and targets outlined in the Logframe while guaranteeing timely implementation and technical support. In particular, IFAD will provide two main supervision services: (i) Fiduciary supervision: Supervising the procurement, disbursement, end use of funds and compliance with the grant agreement and IFAD and GEF criteria and safeguards, and (ii) Implementation support: Providing assistance to borrowers during execution of various project activities and helping them respond to GEF and IFAD requirements²⁶.

62. The project will be supervised from the IFAD national office in Lima (Peru), which is composed of a Country Program Manager, a Country Program Officer, and technical and secretarial staff. Supervision and implementation support will be consist mainly of field missions by IFAD staff and specialized consultants during project implementation. The Country Office will be supported from IFAD headquarters on legal, financial, fiduciary and technical issues.

²⁴ IFAD's **Environment and Natural Resource Management Policy: Resilient Livelihoods through the Sustainable Use of Natural Assets** (IFAD, 2011), available at <http://www.ifad.org/gbdocs/eb/102/e/EB-2011-102-R-9.pdf>

²⁵ **IFAD Country Strategic Opportunities Programme. Republic of Peru** (IFAD, 2009), available at: <http://www.ifad.org/gbdocs/eb/97/e/EB-2009-97-R-11.pdf>

²⁶ Please check IFAD's **Policy for Supervision and Implementation Support** in: <http://www.ifad.org/pub/policy/supervision/e.pdf>

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

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
José Antonio González Norris	Director of External Cooperation and GEF Technical Focal Point	MINISTRY OF ENVIRONMENT (MINAM) OF PERU	12/20/2011

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Mr. Elwyn Grainger-Jones, Director, Environment and Climate Division (ECD), IFAD 		01/09/2012	Mr. Jesús Quintana, Regional Climate Change and Environment Expert, ECD, IFAD	+390654592210	j.quintana@ifad.org