



# REQUEST FOR CEO ENDORSEMENT

**PROJECT TYPE: Full-sized Project**

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

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## PART I: PROJECT INFORMATION

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: <sup>1</sup>	
GEF Agency(ies):	IFAD	GEF Agency Project ID:	4773
Other Executing Partner(s):	Ministry for the Environment of Peru (MINAM)	Submission Date:	17 June 2013
GEF Focal Area (s):	Biodiversity	Project Duration(Months)	60
Name of Parent Program (if applicable):		Project Agency Fee (\$):	535, 454
<ul style="list-style-type: none"> <li>➤ For SFM/REDD+ <input type="checkbox"/></li> <li>➤ For SGP <input type="checkbox"/></li> <li>➤ For PPP <input type="checkbox"/></li> </ul>			

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

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
(select) BD-2	Outcome 2.1: Increase in sustainably managed landscapes and seascapes in the High Andes that integrate biodiversity and conservation	Output 2.1.1. At least 23,866 hectares in High Andes ecosystems incorporate biodiversity and ecosystem services valuation systems	GEF TF	2,364,000	22,901,710
(select) BD-2	Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks	Output 2.2.1: Two payment for ecosystem services (PES) systems established	GEF TF	2,735,625	10,604,330
		Sub- Total		5,099,625	33,506,040
		Project Management Costs		254,920	3,515,434
<b>Total project costs</b>				5,354,545	37,021,474

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

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

## B. PROJECT FRAMEWORK

**Project Objective:** To protect and sustainably use High Andes ecosystems 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	Grant Amount (\$)	Confirmed Co-financing (\$)
Component 1. Conservation and Sustainable Management of High Andes ecosystems	Inv	Outcome 1.1: Conservation and/or sustainable use of at least 23,866 hectares of High Andes ecosystems and landscapes	(i) Conservation and restoration of at least 5,917 hectares of high altitude relict forests ;  (ii)Conservation, rehabilitation, improvement and sustainable management of at least 2,113 hectares of bofedales;  (iii)Conservation and sustainable use of at least 15,837 hectares of other wetlands (pajonales, páramos), mountain forests and rangelands in the altiplano and rivers' headwaters.	GEF TF	2,364,000	22,901,710
Component 2. Improvement of the Institutional Framework for ES in Peru through Implementation of PES/CES schemes	TA	Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks	(iv) Two watershed committees established ; (v) Two trust funds established for PES schemes; (vi) Law for ES under implementation and rules developed; (vii) Monitoring and evaluation system established	GEF TF	2,735,625	10,604,330
Subtotal					5,099,625	33,506,040
Project management Cost (PMC) <sup>3</sup>				GEF TF	254,920	3,515,434
<b>Total project costs</b>					<b>5,354,545</b>	<b>37,021,474</b>

<sup>3</sup> PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

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

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

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (\$)
GEF Agency	IFAD	Hard Loan	20,000,000
National Government	Government of Peru	Cash	16,468,156
National Government	Ministry for the Environment (MINAM)	In-kind	553, 318
<b>Total Co-financing</b>			<b>37,021,474</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
IFAD	GEF TF	Biodiversity	Peru	5,354,545	535,454	5,889,999
<b>Total Grant Resources</b>				<b>5,354,545</b>	<b>535,454</b>	<b>5,889,999</b>

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project (excluding PPG Fees).

**E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	NA	NA	NA
National/Local Consultants	686,488	7,501,612	<b>8,188,100</b>

**PROJECT MANAGEMENT COSTS**

Cost Item	Grant Amount	Co-financing	Project Total
<b>Local Consultants</b>	214,000	2,476,563	2,690,563
<b>Office Facilities, Equipment and Vehicles</b>	0	409,262	409,262
<b>Baseline, Mid Term and End of Term Evaluation</b>	0	418,703	418,703
<b>Audits</b>	40,920	105,358	146,278
<b>Total</b>	<b>254,920</b>	<b>3,409,886</b>	<b>3,664,806</b>

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

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

## PART II: PROJECT JUSTIFICATION

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

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

NA (the project is fully aligned with the original PIF)

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

NA (the project is fully aligned with the original PIF)

#### **A.3 The GEF Agency's comparative advantage:**

NA (the project is fully aligned with the original PIF)

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

##### **Baseline Project: Strengthening Local Development in the Highlands and High Rain Forest Areas project (DELOSI)**

**Rationale and justification of baseline project.** The rationale of the **DELOSI** project is based on the recognition of the need to address rural development beyond “the productivity vision” and the possibility to introduce successful approaches financed by IFAD in other areas of Peru while reinforcing new approaches include the development of local governments and other development actors. In this direction, the **DELOSI** project is aligned with new policies for social inclusion, new directives for rural development and the country’s National Strategy for Rural Development. The project is further aligned with IFAD’s strategy for Peru, whose objectives include: (i) improved management knowledge and technical capacity of rural communities to further sustainable use and control of natural resources and physical assets; (ii) increased access to quality financial and non-financial services, public and private, and improved competitiveness and enhanced market linkages; and (iii) increased community involvement in decentralized policy and decision making processes by regional and local governments.

**Baseline project objective<sup>5</sup>.** The associated baseline project (DELOSI) aims to deepen the effectiveness, efficiency and relevance of public investments from central regional and local governments to improve the wellbeing of the rural population and increase the value of their natural, physical, human, social and financial assets in the project area. The associated project will:

- (a) Strengthening the capabilities and skills of groups and associations of the rural poor to participate fully in local development, increase productivity and competitiveness, including full access to citizenship;
- (b) Transferring funds to groups of organized rural families and associations of rural men and women citizens for them to competitively: i) improve their natural resources and human settlements, ii) have grant funding to carry out profitable business ventures in a wide range of initiatives, and iii) mobilize savings and provide access to micro insurance access especially for rural women;
- (c) Improving the management capacity of local governments to meet relevant demands of the rural poor, intended for self-development and leverage the resources available to municipalities working with the project ; and
- (d) Strengthening the institutional capacity of the Implementing Agency to deepen a territorial and micro watersheds approach, mobilize additional private investment to complement project investments adequately implement an intercultural approach, institute monitoring and evaluation mechanisms and introduce a gender dimension in its projects and further strengthen its operational capacity at the district level.

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

<sup>5</sup> DELOSI project was approved by the IFAD Executive Board in September 2012; the Loan Agreement between IFAD and the Ministry of Economy and Finance of Peru (MEF) was signed on 20 February 2013.

**Baseline project components and results.** Implementation of the DELOSI project includes three main components: (1) Valuing assets of small-scale farmers, (2) Providing access to financial and non-financial services and (3) Strengthening capacities for local development with territorial identity. According to the 2007 National Population and Housing Census, the population in the project area comprises 513,708 people, of whom 73 per cent (361,113) are considered rural by the National Institute of Statistics and Informatics. Of these, 374,722 live in districts of the sierra and 138,986 in the high rainforest area. The target population is defined as mainly subsistence smallholders and small-scale producers with limited physical, financial and human capital and restricted access to markets.

**Baseline project area<sup>6</sup> and target groups.** The project area includes the central and northern sierra and a small portion of the high rainforest region in the department of San Martín. It comprises provinces and districts in the departments of Lima, Cajamarca, Amazonas and San Martín. In total, the area covers 12 provinces and 85 districts with an area of 20,226.6 km<sup>2</sup>. According to the 2007 National Population and Housing Census, the population in the project area comprises 513,708 people, of whom 73 per cent (361,113) are considered rural by the National Institute of Statistics and Informatics. Of these, 374,722 live in districts of the sierra and 138,986 in the high rainforest area. The target population is defined as mainly subsistence smallholders and small-scale producers with limited physical, financial and human capital and restricted access to markets.

**Baseline project overall costs and financing.** Total project costs have been estimated at USD\$ 42.3 million. IFAD will contribute with USD\$ 20 million, the Government of Peru with US\$16.4 million, MINAM contributes in kind with USD 553,318 and the GEF grant with USD 5,3 million.

**Complementarity DELOSI-GEF.** Significant linkages exist between DELOSI and GEF funding in term of introducing best agricultural practices along the production, transformation and marketing of agricultural products line, adequately managing productive resources under environmentally friendly development and building capacities of local organizations to participate in their own development while being able to democratically assign project resources.

The GEF Project would benefit from a number of DELOSI project activities mainly under Component 1, whose main objective is to value human, social, physical, cultural, and financial assets of rural producers in the project area by identifying, recording, capturing and disseminating good practice solutions that are functional for the livelihood strategies of beneficiaries, their families, associations and communities. Within this component the following two central activities are relevant:

(a) *Strengthening capacities for natural resource management* aimed at developing and strengthening the capacities and competencies, both among recipients and beneficiaries of associations and communities to manage innovation processes through the implementation of Territorial Management Plans with emphasis on natural resources in order to obtain expected results and impacts, and achieve sustainability and

(b) *Funding of Territorial Management Plans.* Through this sub component the project will finance activities that seek to increase the value of natural and physical assets of community groups and individual households at the same time reduce environmental risks and degradation of productive resources

Under Component 2 the DELOSI project will provide funding for allowing beneficiaries to access financial and non-financial services. Support will be provided for activities that seek to develop capacities of small-scale producers for managing local enterprises under a market approach with emphasis on entrepreneurship that will lead to better income through the use of a competitive funding mechanism. This mechanism is the means that will enable organizations to access resources for the procurement of technical assistance and overcome bottlenecks that restrict their production, processing and marketing activities. Other significant activities under this component include: (i) Strengthening partnership and leadership of small-scale rural producers allowing them to share common interests in accessing technical support services under better conditions, improve their bargaining power, lower production costs and, confronted with greater market demand, add supply under quality standards. This sub component aims to develop skills and abilities so that producer organizations are integrated into second-level organizations while strengthening their market access, improving their knowledge and skills in response to higher levels of demand and, (ii) Strengthening

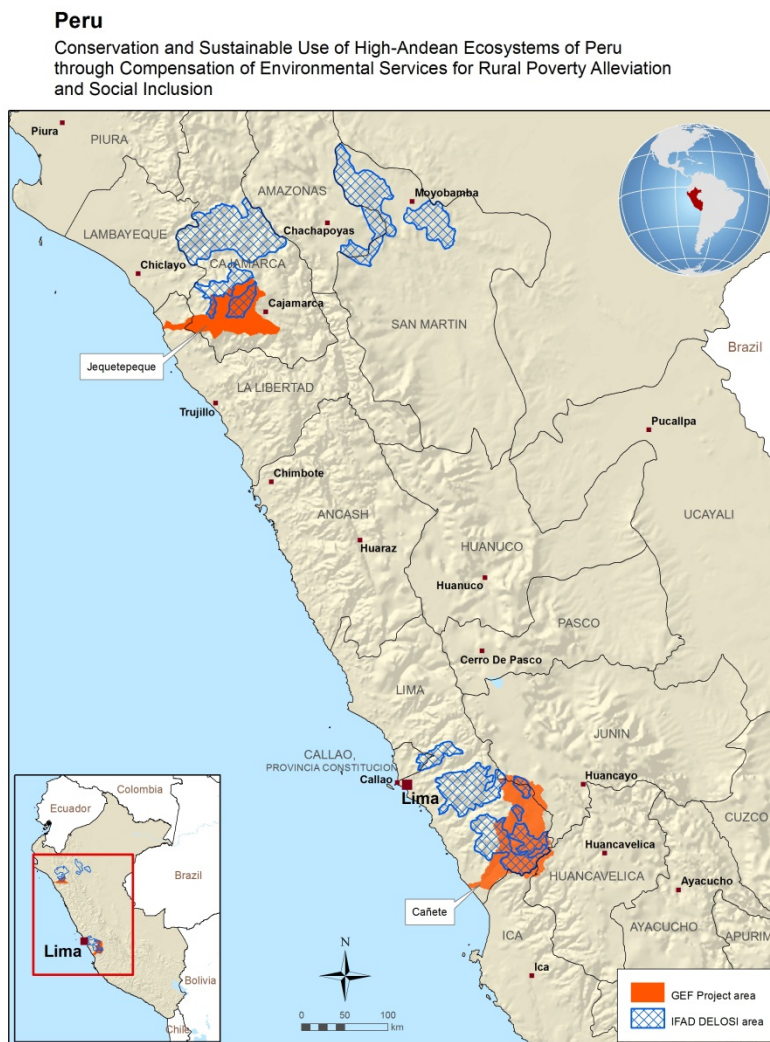
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<sup>6</sup> Project area GEF: The area of intervention consists of two basins, Cañete and Jequetepeque. These basins were selected in consultation with national authorities and also coincide with the geographical coverage of the DELOSI project.

community leadership to achieve more rapid transformation processes for which induction workshops for users, groups of women and community leaders have been considered.

Component 3 of the DELOSI project aims *at strengthening capacity for local development under a territorial approach which includes:* (a) Capacity building of staff involved in local development aimed at building skills and competencies, both among recipients and beneficiaries as between technical teams and men and women leaders of associations and communities to manage innovation processes; (b) Strengthening partnerships in local governments by providing training through learning routes and *in situ* training for mayors, municipal facilitators and staff of Local Economic Development Offices (ODEL), providing support to the formation of associations and economic corridors, and co-financing pilot initiatives developed by associations of municipalities. This activity includes the preparation of relevant teaching materials and; (c) Ownership of the Local Resource Allocation Committees (LRAC) Model which will strengthen municipalities so that they are prepared to carry out advocacy and monitoring of activities to be funded by the project and fund operation of the LRACs of municipalities thus ensuring that these operate in the long run and that decisions of these committees are made in a transparent manner and include accountability mechanisms.

**FIGURE 1: DELOSI AND GEF PROJECT AREA**



 The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.  
 Map compiled by IFAD | 29-04-2013

**TABLE 1: SUMMARY OF COMPLEMENTARY REASONING (DELOSI AND GEF)**

DELOSI Project	GEF
<p><b>Objective:</b> to deepen the effectiveness, efficiency and relevance of public investments from central regional and local governments to improve the wellbeing of the rural population and increase the value of their natural, physical, human, social and financial assets in the project area.</p>	<p><b>Additional objective:</b> to conserve and use sustainable High Andes ecosystems that provide environmental services, especially water, transferring economic resources from downstream beneficiaries to upstream rural communities providing them.</p>
<p><b>Components</b></p> <p><b>Component 1.</b> Valuing assets of small-scale farmers.</p> <p><b>Component 2.</b> Providing access to financial and non-financial services.</p> <p><b>Component 3.</b> Strengthening capacity for local development through a territorial approach.</p>	<p><b>Components</b></p> <p><b>Component 1.</b> Conservation and Sustainable Management of High Andes Ecosystems</p> <p><b>Component 2.</b> Implementation of the Institutional Framework for Environmental Services in Peru through the implementation of PES/CES Schemes.</p>
<p>1. <b>Project area DELOSI:</b> The project area includes the central and northern sierra and a small portion of the high rainforest region in the department of San Martín. It comprises provinces and districts in the departments of Lima, Cajamarca, Amazonas and San Martín. In total, the area covers 12 provinces and 85 districts with an area of 20,226.6 km<sup>2</sup>.</p> <p>2. <b>Project area GEF financing:</b> The area of intervention consists of two basins, Cañete and Jequetepeque (within the geographical coverage of the DELOSI project). Specific targeting and direct beneficiaries for GEF funding will be determined by a combination of geographic self and direct targeting among groups settled in 21 districts.</p>	

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

**Rationale and Justification of complementary GEF financing.** High Andean Ecosystems are recognized at different instances as strategic ecosystems that need to be preserved. The Convention on Wetlands of International Importance, especially as Waterfowl Habitat (RAMSAR convention) distinguishes High Andean wetlands found in *Paramo*, *Jalca* and *Puna* bioregions as strategic due to: a) their valuable and singular biodiversity, b) their function as regulators of water and c) for being a living space of many local and peasant communities and indigenous peoples. Similarly, these ecosystems are declared as fragile by the General Environmental Law (Law 28611) of Peru due to their strategic importance for biodiversity conservation and water provision.

In spite of this, High Andean ecosystems are not receiving enough attention and/or being adequately managed due to isolation, sparse population in surrounding areas, conservation biases<sup>7</sup> and the lack of resources to fund conservation measures. Furthermore, valuable species contained in these ecosystems and the critical environmental services, most notably water, that they provide can be reduced or even lost, if proper measures to stop environmental degradation such as overgrazing, deforestation, pollution and erosion are not put in place.

The lack of financial resources allocated for the conservation and preservation of these ecosystems reflects in part the non-recognition of the economic importance of High Andean ecosystem services (water, biodiversity, carbon capture, landscape,) to society. In the case of water, a critical resource for Peru's development, those who could contribute to their protection represented by upstream communities are not receiving a fair share for the services they help provide to downstream users including agricultural producers, hydropower companies, and cities.

<sup>7</sup> Chávez, J. et al, (2005). Las Áreas Naturales Protegidas del Perú: Informe Nacional (INRENA, Lima)



In this regard, the Ministry of Environment (MINAM) believes that recognition of the economic value of environmental services through the creation of economic mechanisms that enable transfer of resources from Environmental Services (ES) beneficiaries to those whose actions contribute to their provision, can help achieve sustainable management of these ecosystems, and can reduce conflicts between resource users by procuring a fair share of the ES benefits and costs.

On the other hand, national authorities have proposed passage and adoption of a Law for ES rewards that can provide the framework for developing and implementing Payment for Environmental Services (PES) schemes in Peru. However, the Law will need eventually to be ruled and regulated based on what has and is being demonstrated to work in practice. In this regard, pilot cases that have a replicable potential are determinant for informing the design of ES rules and regulations.

In spite of multiple efforts by several organizations to promote these economic mechanisms, there is still the need to put in place initiatives oriented at developing guidelines and capacities for negotiation and design of sustainable and feasible PES schemes from a financial, legal and institutional perspective. In this context, the main rationale of this Project is that by supporting implementation of PES schemes in selected watersheds, where technical advances towards PES design have been made, the Project may be able to focus on the institutional arrangements, actual investments in conservation activities, financial PES design, the application of the ES Law, and the identification of key aspects to be incorporated in the rules and regulations of the ES Law.

**Objective of GEF financing.** The GEF funds 'objective is to conserve and use sustainable High Andes ecosystems that provide environmental services, especially water, transferring economic resources from downstream beneficiaries to upstream rural communities providing them. The project will support conservation systems that assign economic value to critical environmental services allowing the transfer of economic resources from the private and the public sector. The Project will also assist the Government in the implementation of the legal and institutional framework for environmental services.

Thus, the Project intends to conserve, improve or use sustainably biodiversity and ecosystems in the central High Andes of Peru (peat bogs - *bofedales*, Polylepis forests –*queñoales*, high-altitude forests- *puna*) by investing, and promoting sustainable transfer of economic resources from the private and public sector for the conservation and sustainable use of these ecosystems. By engaging the private sector in general, but more specifically relevant water users, such as the agricultural sector, domestic users, industry, hydroelectricity generation and mining companies, the Project will contribute to improve the livelihoods of local communities and at the same time maintain or enhance the flow of ecosystem services. At the same time, assigning economic value to the protection of ecosystems will help reduce pressure over forest and wetland resources.

The GEF funds will focus on key activities/investments related to conserve and use sustainable High Andes ecosystems that provide environmental services, especially water, seeking as key outputs the following: i) improved livelihoods of small scale producers through better understanding of the specific importance of conservation of natural resources and adequately management of ecosystems; ii) increase of income through the strengthening and promotion of sustainable management practices and iii) improved management of natural resources (water, biodiversity, soil).

**GEF area: from three to two watersheds.** During GEF formulation, which occurred after negotiations between IFAD and the Ministry of Economy and Finance of Peru, national authorities agreed on the need to reconcile GEF grant intervention in areas where the IFAD funded DELOSI project will operate. The initial design of DELOSI project included the Santa River watershed as it is located in the Ancash region that was originally included in the DELOSI geographical coverage thus it was included in the PIF. However during GEF negotiations the Ancash region was left out of the overall coverage. Notwithstanding MINAM has suggested that preliminary studies be conducted in this watershed. These studies have been included in the final grant design. The PIF also included the Shullcas watershed in Huancayo region. National authorities also took note that the Huancayo region was not included in the DELOSI coverage and therefore suggested to include the Jequetepeque watershed instead bearing in mind that the Cajamarca region had been included in the DELOSI coverage and that considerable work was being undertaken in the Shullcas watershed by a CARE funded project which could provide insights and lessons learned for grant implementation.



In conclusion the area of intervention for the GEF project consists of two basins, Cañete (Department of Lima) and Jequetepeque (Department of Cajamarca) that were selected in consultation with national authorities and also coincide with the geographical coverage of the DELOSI project. Trusts funds will be established for both basins while preliminary studies will be funded for future interventions in the Santa River basin.

The Cañete River basin covers 29 districts, 5 in the province of Cañete, one in the province of Huarochiri and 23 in the province of Yauyos of the department of Lima. The total area is approximately 601.734 ha.

The Jequetepeque river basin covers 29 districts of 6 provinces of the department of Cajamarca (Cajamarca, San Pablo, San Miguel and Contumazá) ; and Pacasmayo and Chepén in the department of La Libertad. The total area of the basin is 393.545 ha.

**Specific targeting and direct beneficiaries for GEF funding.** Direct Project beneficiaries will be determined by a combination of geographic self and direct targeting among groups settled in 21 districts: 13 in the province of Yauyos, 3 in Cajamarca, 3 in Contumazá and 2 in San Miguel. Based on census information and the need to address specific conservation of peat lands, grasslands and relict forests by providing incentives to communities for that purpose it has been possible to determine that a total of 1322 rural families will benefit in the Jequetepeque watershed, and 842 rural families in the Cañete watershed.

**Gender dimension.** On average, the female presence in the basins is 48%. In rural areas the main economic activity is agriculture, which is led by men however; other economic activities like trade, manufacturing, education and other services are led by women, representing 40% of the economically active population. The illiteracy rate for women ranges from 6.6% and may reach 14% in higher areas of the basins. Among the total population without identity documents, 56% to 70% are women. Approximately 30% of household heads are women and the fertility rate is two children. The Project will pay particular attention in ensuring that women-headed households participate actively in implementing conservation sub projects in both basins.

**TABLE 2: SUMMARY OF ASSOCIATED BENEFITS (GEF)**

<b>Complementarity between DELOSI project and GEF funding</b>	
•	Increased income of target population by 30%
•	Malnutrition diminished by 10 percentage points
•	50% of project beneficiaries increase their food security
<b>Expected associated benefits to be delivered by GEF funds:</b>	
•	Improved capacities for better use, management and protection of High Andes Ecosystems and provision of environmental services
•	A better understanding of the specific importance of conservation of natural resources and adequately management of ecosystems.
•	Improved management of natural resources (water, biodiversity, soil).

**Project development objective.** 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.

**Impact indicators.** Selected impact indicators under the GEF financing comprise:

- Increased income of target population by 30%
- Malnutrition diminished by 10 percentage points
- 50% of project beneficiaries increase their food security

**Components /Outcomes.** In addition to Project Management (Component 3), the GEF project will be executed around two key components:

- Component 1: Conservation and Sustainable Management of High Andes Ecosystems
- Component 2: Improvement of the Institutional Framework for ES in Peru through Implementation of PES/CES schemes

**Component 1.** Conservation and Sustainable Management of High Andes Ecosystems.

**Objective:** The objective of this component is to further the conservation and/or sustainable use of at least 23,866 hectares of High Andes ecosystems and landscapes, including relict forests, *bofedales* and other wetlands, using PES/CES schemes centered in better water management and biodiversity conservation.

**Intervention approach.** Aligned with the agricultural productive activities funded under the DELOSI project<sup>8</sup>, the GEF fund's intervention approach under this component will identify some key measures that will aim to: i) creating and strengthening human and institutional capacities on conservation and proper management of ecosystems; ii) supporting environmentally friendly- agricultural productive activities that would result in a better delivery of water and biodiversity conservation and iii) promotion of sustainable forest and grassland management, including river bank protection will be paramount in better protecting biodiversity and providing water.

**Activities.** Implementation of this component entails the provision of incentives to small-scale farmer associations and peasant communities located in the upper parts of the basins. In essence the Project will finance the conservation and management of three of the main High Andes ecosystems or vegetation cover types: peat lands, grasslands, and forests, whose proper care and use can make the upper basin able to provide water to users at lower elevations. In order to fulfill these goals, conservation and management community plans, with specific activities for each ecosystem have been considered.

Implementation of this component will be undertaken using a phased approach including the following activities:

- 1.1 Consultations and site selection
- 1.2 Sub-project implementation
- 1.3 Biodiversity and hydrological monitoring and
- 1.4 Communications and information dissemination to be funded under Component 2

**1.1 Consultations and site selection.** During a first phase, local consultations will ensure the active participation of local actors and their inputs and feedback during the life of the Project to ensure sustainability.

Component design has considered the fact that most of the High Andes ecosystems are poorly studied and understood, for which an initial evaluation and baseline definition will be undertaken to adequately monitor and assess activities of the Project as a whole. A better knowledge of the potential intervention sites will also allow for prioritizing specific

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<sup>8</sup> Linkages with the IFAD-funded DELOSI project may allow small-scale farmer associations and in particular peasant communities to realize the benefits of undertaking agricultural development, by improving their access to markets and adding value to high Andean products and services.

sites in order to better allocate Project funds looking for the best possible investment returns mainly in terms of higher water production and biodiversity conservation. Evaluation, baselines and prioritization will be done in sequence using modern technology Global Positioning Systems (GPS), Geographic Information Systems (GIS), satellite images and maps) with adequately organized and timed field work and control. In these activities support from local agencies such as Agro Rural, regional and local governments, universities and Non-Governmental Organizations (NGOs) will be crucial. After the definition of the broad Project prioritized areas, specific intervention areas will be defined with participation of local actors and communities.

**1.2 Sub-project implementation.** Having identified specific intervention areas it will be possible to undertake implementation of sub projects in accordance with operational modalities contained in a Project Implementation Manual (PIM). In brief, to start execution of a sub-project, beneficiary organizations will prepare a sub-project proposal and operational plan for approval by a Project Approval Committee constituted under *Ad hoc* Basin Committees to be established. Once approved beneficiary organizations will sign a Sub-Grant Agreement with PROFONANPE as administrator of Project funds. PROFONANPE will transfer to beneficiary organizations approved funds, according to a work plan to be attached to the agreement. To this end, beneficiary organizations will open a specific account in a recognized bank. Further operational details are sketched out in Annex 11 and in detail in the draft PIM available in the Project Life File in Spanish.

Sub-projects for conservation of **peat lands** could include the creation of artificial ponds as well as the use of re vegetation techniques to stimulate the recovery of cushion and other typical vegetation types. **Grassland conservation** sub projects could include zoning of pasture for recovery and sustainable use. Protection of patches of grassland from cattle grazing would allow for recovery in cover density, as well as in biodiversity. Support will be provided for assessing and controlling carrying capacity of land parcels and providing support to increase productivity (better fodder, animal health) and access to market. **High Andean forests** sub-projects could include the use of the “protection forest” concept understood as maintenance of forests biodiversity which is intimately related on the one hand to the species and community-related ecological needs of flora and fauna living in the forest and on the other hand the disturbance regimes of the specific forest type. Eligibility criteria for participants will include priority given to community groups located in biodiversity and/or hydrological priorities areas, and led by women and/or youth.

**1.3 Biodiversity and hydrological monitoring.** Component implementation will also include biodiversity and hydrological monitoring to be performed across the board with some specific indications for each ecosystem. Peat lands vegetation cover vitality and density monitoring will be performed using simple short vegetation inventory equipment similar to that commonly used for grasslands, by means of a 1m x 1m square frameworks for counting diversity of species and cover density, looking for relative improvement or degradation of the peat lands vegetation since the baseline definition and among the different working sites. Grasslands vegetation cover vitality and density monitoring will be performed using simple grass inventory equipment similar to that used for peat lands. Forests vegetation cover vigor, density and natural regeneration monitoring will be performed using forest inventory methods and installing permanent plots to check the evolution of the forests vegetation since the baseline and among the different regions.

Hydrological function monitoring will address the need to determine basic water balance information on rainfall and discharge, as well as measurements of soil infiltration capacity, soil moisture, soil erosion and sedimentation. A set of automatic meteorological and hydrological stations for continuous precipitation and discharge measurements will be implemented at each upper basin.

**1.4 Communications and information dissemination to be funded under Component 2.** Close collaboration with the DELOSI project (Component 1) will support the use of good agricultural practices by local farming communities such as: reducing erosion through hedging, ditching and terracing, application of fertilizers at appropriate moments and in adequate doses, maintaining or restoring soil organic content, by manure application, crop rotation, rainwater harvesting and efficient water use; assistance with access to market and rural finance (Component 2) may be provided as incentives for the adoption of these good practices.

**Outputs and outcomes.** The Project will achieve the following environmental benefits: (i) conservation of 5,917 hectares of high-altitude relict forests, (ii) conservation and sustainable management of at least 2,113 hectares of *bofedales* (*peat lands*); and (iii) conservation and sustainable use of at least 15,837 hectares of other wetlands and high-altitude grasslands (*pajonales, páramos*).

**Expected environmental benefits** 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 endemism, vulnerable species and threatened ecological communities and;

**TABLE 3: SUMMARY OF COMPONENT 1, CONSERVATION AND SUSTAINABLE MANAGEMENT OF HIGH ANDES ECOSYSTEMS**

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**Objective:** The objective of this component is to further the conservation and/or sustainable use of at least 23,866 hectares of High Andes ecosystems and landscapes, including relict forests, *bofedales* and other wetlands, using PES/CES schemes centred in better water management and biodiversity conservation.

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**Intervention approach:**

- creating and strengthening human and institutional capacities on conservation and proper management of ecosystems;
  - supporting environmentally friendly- agricultural productive activities that would result in a better delivery of water and biodiversity conservation and
  - promotion of sustainable forest and grassland management, including river bank protection will be paramount in better protecting biodiversity and providing water.
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Expected environmental benefits:

- protection of species that are important for maintaining biological diversity;
  - conservation of important and significant natural habitats for in situ conservation of biological diversity, including endemism, vulnerable species and threatened ecological communities
- 

Main Activities

- 1.1 Consultations and site selection
- 1.2 Sub-project implementation.
- 1.3 Biodiversity and hydrological monitoring
- 1.4 Communications and information dissemination

Key Target indicators

- 110 Community groups formed and trained (30% led by women)
- 110 Subproject proposals developed, funded and implemented
- 5917 has relict forests (26 subprojects)
- 2113 has Peat bogs (14 subprojects)
- 15837 has grasslands (70 subprojects)

**TABLE 4: SYNERGIES BETWEEN DELOSI AND GEF GRANT**

Potential GEF Grant proposals aimed at conserving and protecting environmental services in high Andean areas <sup>9</sup>	DELOSI (Detailed project description)	Complementarity
Recovery and conservation of terraces in the middle and upper segments of the Cañete river basin.	Rehabilitation of terraces for cultivation	Rehabilitation of terraces with DELOSI support may be part of incentives to be provided for conservation in the upper part of the basin when the beneficiary groups are the same ones and would commit themselves in conservation activities in the selected area with grant resources
Reforestation	Forestation or reforestation of areas subject to erosion or not protected by vegetation cover	Reforestation plans would be coordinated so as to avoid duplication of investments in terms of financing purchase of seedlings and establishment or nurseries among others.
Conservation and or recovery of pastures in high Andean areas	Harvesting and reseeding of native grasslands	Complementarity would be sought under GEF funded management and conservation of grasslands sub projects with incentives considered in both initiatives
Improvement of potable water supply to the Huancaya village	Improvement of community human settlements and housing aimed at enhanced living conditions and livelihoods	The DELOSI support could be used as an incentive in order to engage the community in participating in relevant conservation of biodiversity activities and hydrological services
Establishing a solid waste disposal system in the Yauyos provincial capital	Improvement of community human settlements and housing aimed at enhanced living conditions and livelihoods	This DELOSI initiative could also involve communities and farmer groups as incentive for meeting conservation objectives foreseen by the grant.
Strengthening the capacity for managing high Andean tubers.	Rehabilitation of terraces soil improvement and use of sustainable agro ecological practices	DELOSI may equally contribute to furthering grant objectives aimed at conservation.
Production and commercialization of high Andean products such as alpaca meat, trout, and Andean crops quinoa and kiwicha	Rehabilitation of terraces, soil management, livestock improvement and agro ecological management and furthering access to financial services valuing beneficiary assets including market access and partnerships.  Sustainable management of wildlife flora and fauna	Complementarity may be sought aimed at ensuring that DELOSI support initiatives that are relevant in terms of biodiversity conservation around the three main actions supported by the grant , mainly conservation and management of peat lands , relict forests and grasslands
	Biomass energy consumption alternatives such as firewood and manure by using ecological stoves	These DELOSI funded initiatives maybe considered as an incentive in order to engage the community in participating in biodiversity conservation activities and hydrogel services These sub projects could be part of strategy aimed at reducing threats to relict forests. The use of manure may also be utilized to improve management of natural pastures.

<sup>9</sup> Extracted from a diagnostic study commissioned by MINAM as an input to Payment for Environmental Services design in the Cañete watershed

## **Component 2, Improvement of the Institutional Framework for ES in Peru through Implementation of PES/CES schemes.**

**Objective.** The objective of this component is to further the "economic retribution" concept at the national and selected watershed levels. This component will assist in setting the institutional framework and supporting implementation of the concept in the two watersheds selected. Additionally the authorities have suggested that complementary studies in the Santa River basin will be undertaken, which had been considered in the PIP although no scheme will be implemented during the life of this Project as the department of Ancash was excluded from the coverage of the DELOSI project. Consultant services have been considered for the preparation of additional studies on hydrological services in the basin.

**Intervention approach.** Specifically the GEF funds will assist in setting the institutional framework and supporting implementation for environmental services in the two watersheds selected, including the execution of a communication strategy that will address the needs of different actors.

**Activities.** Implementation of this component includes four main sets of activities:

- 2.1 Preparatory activities for setting up the PES schemes
- 2.2 Creation of PES schemes
- 2.3 PES monitoring and evaluation and
- 2.4 Development of Rules and Regulations for the Law on Ecosystem Services

**2.1 Preparatory activities for setting up PES schemes.** This preparatory phase will ensure that stakeholders are aware, understand and agree on Project objectives, activities and expected outcomes. More specifically this activity includes developing a communications strategy and obtaining formal ratification of actors regarding their participation in PES schemes.

**Communications strategy.** The strategy will aim at disseminating Project objectives, plan of activities and ultimate goal of the Project. This strategy will be implemented throughout the life of the Project in order to communicate results and receive constant feedback from stakeholders in order to facilitate project adjustment when required. The strategy should allow feedback from local stakeholders that participate in and/or who will benefit from Project activities. Preparation of the strategy will go hand in hand with the mapping of main stakeholders to inform, refine and adjust Project activities and outputs as well as to discuss with them, Project achievements and lessons learned. Messages will be defined and materials prepared and disseminated.

**Stakeholder's commitment to PES implementation.** During this activity the Project will work towards achieving formal agreements with beneficiaries and providers as a prior step to constitute an institutional basis for PES establishment and decision-making in the long run. At this stage, formal agreements ratifying the stakeholder's intention to participate in subsequent activities for PES design and establishment, and provide formal evidence that they are aware of the Project and PES objectives will be pursued. This activity would not need to be undertaken in case formal agreements are achieved prior to Project start-up.<sup>10</sup> The latter could be a Letter of Intent (LOI) duly signed between stakeholders and MINAM. In these LOI's monetary contributions to the PES will not be included, as this may be agreed upon during the actual negotiation process. In addition, during this preparatory phase the Project will determine the land tenure status properly verified in the field and in the respective land titles offices of the Organization Responsible for Formalizing Informal Property (COFOPRI).

The expected output of this activity will be formal ratification by actors regarding their intent to participate in PES design and implementation processes. Notwithstanding, the agreements to be signed for implementation of sub-projects will clearly state that funding for those sub projects was being provided based on PES concepts.

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<sup>10</sup> This is a step forward already recognized as needed by MINAM in the Cañete watershed, so might be probable that is implemented before Project's start up.

**2.2 Creation of PES schemes.** This activity includes: Setting up institutional platforms for PES negotiation and scheme operation

**Setting up institutional platforms for PES negotiation and operation.** The establishment of PES schemes requires an institutional platform with the following functions: a) bringing together representatives of ES providers and beneficiaries, MINAM, National and Local Water Authorities, and Project representatives to discuss and agree on PES objectives, justification and conservation targets; b) negotiating monetary contributions from ES beneficiaries; c) agreeing on operational design of PES and subscribing such agreements; d) making decisions on PES operations and investment; e) monitoring and evaluation of PES performance. In order to further the establishment of these platforms the Project will facilitate and support the creation of **Watershed Ad hoc committees** as the main institutional platform in each Project site as described in the organizational framework section. The Project will build on existing initiatives if in place to constitute Watershed Water Resources Council (CRHC in Spanish) whose creation is contained in the Water Resources Law. In the event that no progress has been made in establishing these Councils at Project start-up these *ad hoc* watershed committees could be considered as pioneering efforts.

**Design and operation of PES schemes<sup>11</sup>.** The Project will design a PES operational structure, procedures and governance rules. To this end the Project will take into account the results of the analysis of the legal framework and legal recommendations for PES implementation conducted by the Peruvian Society of Environmental Law (*Sociedad Peruana de Derecho Ambiental SPDA*) and commissioned by MINAM. The Project will carry out a specific legal study if required. The watershed *ad hoc* committees will act as decision-making body especially regarding: approval of PES investment, agreements regarding contribution from ES beneficiaries, and M&E of PES schemes. For this, the Project jointly with the Assessing, Valuing and Funding of Natural Heritage Directorate of the MINAM will propose specific procedures and operational manuals for the PES schemes to be shared with the watershed *Ad hoc* committees for their endorsement. These manuals will include procedures for the acceptance of new participants in the committees considering the relevance of their participation in the implementation of the PES schemes. They would also include procedures to elect and clarify the roles of committee representatives and authorities. The manuals will clearly designate the conservation priorities in the watershed and the type and combination of conservation and management activities to be financed with PES investment and DELOSI project incentives.

Project design includes establishment of Trust Funds for each of the selected basins. These Trust Funds will be financially managed by PROFONANPE. Initial financial contributions will be deposited in a commercial bank that will invest them in moderate-risk market options. The bank will be selected based on a competitive basis, where the most profitable and convenient proposal in agreement with MINAM. Project design has considered combining two modalities: 1) an Endowment Fund and 2) a Sinking Fund. The Endowment Fund portion will be capitalized with GEF contributions of US\$1M per Trust Fund. Revenues from the Fund will be used to cover recurrent costs associated to PES M&E and biodiversity conservation, in order to guarantee the sustainability of these two fundamental aspects and for which it is more difficult to leverage funding from local ES beneficiaries.

This contribution will also be used to leverage additional funding from other ES buyers such as hydropower and mining companies, farmers, urban water users, other industries, philanthropic organizations, other donors and local and regional governments. Funds from other ES buyers would be used to constitute the sinking fund portion –unless the ES buyer prefers its contribution to be allocated to the endowment portion. The sinking fund would be created with the purpose of implementing conservation actions in priority areas for the provision of ES. It is expected that agreements with ES buyers, especially with those who permanently benefit would be in a long-term or even perpetual basis. In this regard the sinking fund would be sustainable over time. This mixed design, -endowment and sinking, of the Trust Funds is expected to allow sustainability to the PES scheme by providing a permanent sustainable financial platform (via the capital for the endowment fund) and recurrent permanent payments via contributions to the sinking fund portion. On the other hand, this design would provide the Fund with the capacity to cover required immediate investment for conservation priorities through the sinking fund that cannot wait until the endowment fund growth is enough to cover it.

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<sup>11</sup> MINAM will ensure that these activities are complementary and fully integrated to on-going dialogues with stakeholders for the creation of PES/CES schemes in the selected watersheds.



**2.3 PES Monitoring and Evaluation.** The Project will fund a number of M&E activities including the design of the system and its operations.

**Design of PES M&E system.** Considering that most of the current PES schemes in watersheds in the Andean region lack a proper M&E system that is able to measure and evaluate the impacts and progress on ecosystem services provision and biodiversity conservation and that there are no initiatives to measure the effects of PES schemes on poverty conditions, the Project will attempt to fill this gap and contribute with experiences towards the implementation of “PES best practices” including proper M&E systems. Project staff and personnel of the Assessing, Valuing and Funding of Natural Heritage Directorate of the MINAM will develop a monitoring and evaluation system for the PES schemes.

**System operational parameters.** The PES M&E system will address three aspects: Financial and operational PES performance, quality of PES investment and poverty targeting. Regarding financial performance procedures these will be part of the agreement to be signed with PROFONANPE and its Asset manager and will state that after Project completion, PROFONANPE would continue to report the financial status of the PES schemes. Financial reporting will include the financial status and market performance for both, endowment and sinking funds. The operation status of PES schemes will also be monitored by tracking the status of formal agreements between PES contributors (ES beneficiaries besides GEF) and the PES fund, and by the performance of the watershed *Ad hoc* committees.

A set of indicators will be developed to assess the quality and degree of investment with PES. Indicators to assess the degree of investment will include coverage (ha) of implemented activities (conservation and management activities, including those funded by the Project with respective geographical coordinates. To assess the quality of investment, the Project will develop short and long-term indicators. Short-term indicators will allow future PES managers to evaluate with proxy indicators the impacts of PES activities on biodiversity conservation and ecosystem services provision (e.g. indicators to measure compliance of technical recommendations for effective conservation and sustainable management of ecosystems and species). Long-term indicators will be expected to aim at evaluating the actual impacts on ecosystem services delivery. In order to measure some of the most important long-term indicators relevant for these PES schemes, a hydrological monitoring system will be designed and implemented to measure the impact of land use/management practices in the watershed as detailed earlier term. Bearing in mind poverty conditions of the rural population in the selected watersheds the Project will monitor who is receiving PES benefits and will closely collaborate with the monitoring activities of the IFAD funded DELOSI project using IFAD developed instruments for assessing changes in poverty conditions.

**2.4 Development of Rules and Regulations for the Law on Ecosystem Services.** The Project will support and fund developing the institutional framework for environmental services in the country helping to implement the Law, once approved, and allow MINAM to lead the preparation of rules and major guidelines for its application. In order to achieve these objectives the Project will assist in carrying out activities as part of the prior consultation and informed consent process for enactment of the legislation and disseminating information regarding the contents of the ES Law, including proposed Rules and Regulations. Throughout the process the Project will provide feedback to MINAM from civil society including local communities, indigenous people and productive sectors.

**Outputs and outcomes.** The Project will achieve the following environmental benefits: (i) legally-viable PES schemes designed and agreed by watershed ad hoc committee, ii) Rules and regulations of the Peruvian ES legislation drafted.

**Expected environmental benefits** These achievements will contribute to the following global environmental benefits: (a) regulation and provision of ecological services, mainly water for different but critical uses and b) conservation of natural ecosystems currently under represented in the national system of protected areas.

**TABLE 5: SUMMARY OF COMPONENT 2, IMPROVEMENT OF THE INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL SERVICES**

**Objective:** to further the "economic retribution" concept at the national and selected watershed levels. This component will assist in setting the institutional framework and supporting implementation of the concept in the two watersheds selected.

**Intervention approach:**

- Setting the institutional framework and supporting implementation for environmental services in the two watersheds selected
- Execute a communication strategy that address the need of different actors

Expected environmental benefits:

- regulation and provision of ecological services, mainly water for different but critical uses and
- conservation of natural ecosystems currently under represented in the national system of protected areas.

Main Activities

- Preparatory activities for setting up the PES schemes
- 2.2 Creation of PES schemes
- 2.3 PES monitoring and evaluation and
- 2.4 Development of Rules and Regulations for the Law on Ecosystem Services

Key Target indicators

- Communication strategy designed and implemented
- Two watershed ad committees established and operational
- Two trust funds created and operating
- Working group on PES law rules and regulations established and recognised by the MINAM

**TABLE 6: GLOBAL ENVIRONMENTAL BENEFITS (GEF)**  
**Biodiversity - Enhanced protection and maintenance of biological diversity in the northern and central Peruvian highlands**

<b>Key indicators</b>	<b>Baseline situation</b>	<b>Expected post project situation</b>	<b>Method of measurement</b>	<b>Means of verification</b>
Level of human impact and degradation of grasslands, forest and peat lands	Ecosystems within target areas under continued pressure from overgrazing and deforestation by local communities	Conservation and management of at least 5917 ha of high-altitude forests, 15 897 ha of grasslands and 2113 ha of peat lands in Cañete and Jequetepeque basins and improvement of water provision	Continuous biodiversity and hydrological monitoring	Assessment reports Midterm and end of the project evaluations
Available funding for watershed management of two basin headwaters	Non-existing funding for conservation and management of target areas	Funding for conservation and management of forests, grasslands and peat lands leveraged. Recurrent cost for biodiversity conservation and PES monitoring and evaluation covered by 2 endowment funds	Financial reports and bank statements.  Income reports from Trust funds	Budget allocations of national, regional and local government agencies
Has with minimum impact and under formal protection	Grasslands, forests, and peat lands in target areas continue under threat	Grasslands, forests and peat lands at headwaters under community conservation and sustainable management	Evaluation of established technical procedures and progress	Midterm and end of the project evaluations. Local, regional and national governmental support
Comprehensive management of the grasslands, forests and	Watershed committees non-existent in the target areas	2 watershed committees established, properly organized and supported.	M&E of watershed committees	Committee meetings Summary records Agreements
Specific legislation for ES protection and valuation	Non-existent ES national legislation	ES law and regulation	Consultation meetings proceedings and records Signed lists of participants Summary of agreements Final law and regulations proposal submitted for Ministry approval	

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Risks earlier identified during formulation of the PIF were further refined in consultation with national authorities. Risks identified are considered low or medium being lack of interest from the private sector a medium level risk which would be mitigated by strengthening efforts already initiated by the MINAM and others in involving mainly hydropower enterprises in both selected watersheds to contribute to the proposed PES schemes.

**TABLE 7: RISKS AND MITIGATION MEASURES**

<b>Risk</b>	<b>Level</b>	<b>Mitigation measures</b>
Lack of coordination between institutions	Medium	The Project will encourage coordination and participation through two main mechanisms: a Project Advisory Committee to facilitate coordination, communication, interaction and learning among ministries and regional governments. Additionally in each watershed <i>Ad hoc</i> committees would be established to ensure participation at local and regional levels. MINAM will ensure that the Project is fully integrated in on-going initiatives focused on the development of supporting studies and activities towards the design of PES schemes in the Cañete and Jequetepeque watersheds.
Lack of interest from the private sector	Medium	The Project will make concerted efforts to disseminate the important benefits to be gained by PES participants. MINAM has already started consultations with private sector actors in the selected watersheds where willingness to cooperate in PES schemes has been expressed
Low participation rate from the communities in the High Andes	Low	Together with the IFAD' funded DELOSI project, the Project will involve communities through the provision of incentives for conservation of High Andes ecosystems based on their economic needs and agreed upon criteria.
Opposition from social groups	Low	The Project will implement participatory inception and annual workshops in each watershed for involvement and engagement of local groups.
Environmental performance	Low	With joint design by MINAM, SERNANP, ANA and incentives from Agro rural, design and follow up assistance to the environmental activities developed by the Project will aim to increase project effectiveness. Concretely, low survival of trees in reforested areas will be minimized by careful targeting of species and location of reforestation activities to areas naturally suitable to tree-based vegetation succession; adequate follow up care by the host communities will also be inbuilt in the sub-project design and related incentives.
Challenges from climate change	Medium	Climate change is a main cause for accelerated melting of High Andes glaciers. The Project would have a positive role as most activities proposed would help communities and ecosystems increase their resilience and adapt to climate changes.
Environmental risks	Very Low	The Project will implement direct interventions focused on the conservation and sustainable management of ecosystems. No environmental risks are envisaged. The Project will receive insights from conservation experts in order to ensure that actions and promoted practices deliver the expected conservation outcomes. The Project is consistent with GEF, IFAD and Peru's environmental standards.

Initial design also identified additional potential threats or risks associated with the implementation of PES schemes which are summarized in table 8, below. A number of mitigation measures have also been identified including making an adequate selection of partner organizations, simplifying contracts, and requiring quality assurance from ES suppliers.

**TABLE 8: POTENTIAL THREATS TO PES EFFECTIVENESS**

PES-related risks	Possible mitigation measures
(i) Non-compliance with contractual conditions	The Project will work with established community organizations; develop clear guidelines; require previous training and involvement with the Project before payments are made. Implementation of conservation measures would require in-kind co-financing from participants.
(ii) Poor administrative selection	Significant experience has been systematized in the region and the world on PES. The Project will capitalize on these experiences to ensure quality of administration, including work done by STAP, GEF, the Katoomba Group, Forest Trends, the International Institute for Environment and Development and others.
(iii) Spatial demand spill overs and “crowding in”	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. It is unlikely that migrants would take possession of land in the upper basin as a result of PES schemes.
(iv) Adverse self-selection	Since the Project’s 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 will promote specific actions to avoid them such as good selection of partner organizations, simple contracts, and quality assurances from ES suppliers.

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

**Coordination with other GEF (and non GEF initiatives)**

GEF funded activities in Peru include a number of projects in addition to the Sustainable Management of Protected Areas and Forests in the Northern Highlands of Peru and the Strengthening Biodiversity Conservation through the National Protected Areas Program (PRONANP).

**Strengthening Biodiversity Conservation through the National Protected Areas Program (PRONANP).**

This program seeks to integrate the efforts of governmental agencies, multilateral and bilateral donors, civil society, and the private sector to lay the foundations for a broader future National Program for Protected Areas under the country's decentralized framework.

**Conservation of Biodiversity of the *Páramo* in the Northern and Central Andes.** The project assists participating countries (Colombia, Ecuador, Peru and Venezuela) to overcome the major barriers for conserving the biodiversity of the ecosystem and safeguarding the hydrological and other environmental services and functions. The project objective is to support the conservation and sustainable use of the biodiversity of the ecosystem.

**Design and Implementation of Pilot Climate Change Adaptation Measures in the Andean Region project.**

The broad development objective of the project is to contribute to 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.

**Facilitation of Financing for Biodiversity-based Businesses and Support of Market Development Activities in the Andean Region.** The objective of this project is to strengthen trade with and utilization of biological resources at local, national and regional levels as a strategy for the conservation and sustainable use of biodiversity with global significance. The project supports participating countries (Colombia, Ecuador and Peru) to overcome the main barriers to bio trade, attaining environmental externalities on a par with trade benefits.

In addition, other projects are being developed in the same area of the IFAD-funded Project. The main projects in the Cañete Basin are: *Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)*, “**Ecosystem Based Adaptation in Mountain Ecosystems**”; *Challenge Program of Water and Food (CPWF-CGIAR) – Centro Internacional de Agricultura Tropical (CIAT)* “**Assessing and anticipating the consequences of introducing Benefit Sharing Mechanisms**”. In the Jequetepeque Basin one of the most representative projects is **Equitable Compensation for Hydrological Environmental Services**, funded by CARE and the World Wildlife Fund (WWF).

**Ecosystem Based Adaptation in Mountain Ecosystems:** This project is located in the Landscape Reserve Nor Yauyos-Cochas of Perú and its buffer area, covering part of the Cañete and Pachacayo Watersheds. The project’s main objective is to strengthen Peru’s ability to identify and implement adaptation measures based on ecosystems to reduce the climate change vulnerability of local communities in high mountain ecosystems, through a pilot project in Nor Yauyos-Cochas. In order to meet the primary objective, the project’s goals are: (i) the development of the methodologies and tools for the Ecosystem Based Adaptation (EbA) in high mountains ecosystems; (ii) the application of tools and methodologies EbA and their integration into the Management Plan for the National Landscape Reserve Nor Yauyos Cochas; (iii) implementation of priority actions of EbA in Nor Yauyos-Cochas; (iv) build and strengthen capacities of local stakeholders to plan and implement profitable EbA actions; (v) promote the integration of the EbA in the strategies and national and local programs. This project began in 2011 and will be completed in 2014.

**Assessing and anticipating the consequences of introducing benefit-sharing mechanisms:** This project is part of the CPWF, which is working in 10 small basins of the Andes region, being the Cañete Basin one of the watersheds selected. In Peru, the project is being developed together with the MINAM, which is promoting this type of conservation schemes in priority watersheds like Cañete. This project aims to demonstrate whether a Benefit Sharing Mechanism (BSM) is effective or not. It seeks to quantify the consequences of BSM-driven changes in land and water management for livelihoods in upstream rural communities, and for water supplies in downstream water consumers. In addition to this broad objective, the specific objectives of the project are: (i) to develop methods that anticipate *ex ante* the likely consequences of introducing BSM; (ii) to monitor and measure these consequences *ex post*; (iii) introduce methods for adaptive management in BSM design and planning, so that new instances of BSM can benefit from lessons learned. The main results obtained are: economic valuation of hydrological services differentiated by users, analysis of poverty and inequality and the implementation of the hydrological SWAT model in the Cañete Basin. This project began in 2009 and will be completed in 2013.

**Equitable Compensation for Hydrological Environmental Services:** This project seeks to establish compensation mechanisms for environmental hydrological services that lead to sustainable management of natural resources and better living conditions for families settled in the upper basin of the Jequetepeque River. There, has already developed a pilot project in the small watersheds Ayambra, Ahijadero y La Succha. Main results are: installation of agroforestry and silvopastoral systems; promotion of guinea pig breeding; installation of pressurized irrigation systems; implementation of a hydro-meteorological monitoring system; increased awareness by byers and environmental service providers

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

### **B.1 Describe how the stakeholders will be engaged in project implementation.**

Key stakeholders include government agencies, regional and local governments, potential beneficiary organizations, water user groups and private sector entities represented by hydroelectric and mining companies. Main government agencies include the MINAM and the MINAG and several institutions within them.

## **Ministry of Environment (MINAM) - Strategic Development of Natural Resources Vice-Ministry**

MINAM stakeholders include the Strategic Development of Natural Resources Vice-Ministry responsible for *inter alia* designing the national policy and strategy for integrated management of natural resources and monitoring its implementation and inventorying and establishing mechanisms to enhance, compensate and maintain the provision of environmental services while promoting their financing, payment and monitoring thereof. The Vice-ministry includes four Directorates: i) the Biological Diversity Directorate, ii) the Climate Change Desertification and Water Resources Directorate, iii) the Land Management Directorate and, iv) the Assessing, Valuing and Funding of Natural Heritage Directorate. The Assessing, Valuing and Funding of Natural Heritage Directorate is responsible for: a) formulating and promoting policies, plans, strategies, tools, standards and national directives for the evaluation and value-assessment of natural resources, biodiversity, environmental services and their degradation while promoting the design of economic instruments for the strategic development of natural resources and preventing their degradation and formulating and proposing a national policy related to environmental services and compensation.

The Project will be under the *aegis* of the Vice ministry and more specifically under the Assessing, Valuing and Funding of Natural Heritage Directorate. Its Director General will chair the Project's Advisory Committee (PAC) and will be responsible for providing overall management through the Project Implementation Unit (PIU) of all Project activities including selection of consultants and preparation of ANWP&B and reporting to IFAD.

Other stakeholders under the MINAM include: a) the National Services of National Protected Areas, b) the National Meteorological and Hydrology Service and, c) the Environmental Assessment and Oversight Agency.

**The National Service of National Protected Areas (SERNANP)** whose main function is to oversee the National System of Protected Areas (SINANPE) and the National Meteorology and Hydrology Service (SENAMHI) responsible for among other tasks organizing and managing national meteorological, hydrological and environmental databases and the Environmental Assessment and Oversight Agency (OEFA) in charge of the oversight, supervision, control and penalties in environmental matters and directing and supervising the control observance of the activities included within the scope of its jurisdiction and performance of authorities with environmental responsibilities.

The Project will closely collaborate with SERNANP in terms of implementation of activities within the Nor Yauyos Cochas Landscape Reserve and the Sunchubamba Hunting Reserve located in the Project's area of intervention. Coordination on hydrological monitoring will be ensured with SENAMHI in hydrological monitoring in the selected water basins and with OEFA regarding environmental issues related to mining exploration and exploitation in the selected watersheds.

A significant stakeholder is the **National Water Authority (ANA)** as the governing body and highest technical authority responsible for the National Water Resources Management System. ANA responsibilities include among others issuing rules and establishing procedures to ensure integrated and sustainable management of water resources and establishing guidelines for the development and updating of Basin Water Resources Management Plans and approving and monitoring their implementation as well as developing methods and determining the value of economic rewards for the right to use water as well as leading, organizing and administering the National Water Resources Information System, the Administrative Register of Water Use Rights, the National Register of Water Users Organizations. ANA exercises exclusive administrative jurisdiction on water, developing management actions, monitoring, control and surveillance to ensure the conservation and protection of water in respect of quantity and quality of natural assets associated with water infrastructure across sectors; exercising for this purpose, the power to impose sanctions and coercive measures approving the territorial demarcation of watersheds, the classification of water bodies, the definition of marginal strips and volumes of environmental flows, the latter in coordination with the MINAM.

**Ministry of Agriculture (MINAG).** Within the MINAG, stakeholders include the General Directorate for Forest and Fauna, the National Water Authority and the Directorate of Agricultural Environmental Affairs and above all Agro Rural responsible for implementation of the IFAD funded DELOSI project. The Directorate of Forests and



Fauna is responsible for proposing policies, strategies, plans, programs and projects related to sustainable use of forest resources and wildlife associated genetic resources in agreement with the National Environmental Policy and environmental regulations and providing advice and training to public and private sector entities on conservation and sustainable use of forest resources and wildlife. The Directorate is also responsible for the conservation and sustainable utilization of non-domesticated South American camelids, and providing assistance in forest management and wildlife to regional governments and forest management committees.

An additional stakeholder within the MINAG is the **Directorate of Agricultural Environmental Affairs** responsible for implementing, in coordination with the MINAM, the objectives and provisions of the National Environmental Management System to ensure the sustainable use of renewable natural resources and proposing plans, programs, projects and standards for reducing vulnerability and adaptation to climate change in agriculture under the National Strategy to Combat Climate Change. The Directorate is also charged with the responsibility to assess the status of degraded environments and propose measures aimed at recovery and sustainable use as well as developing plans, programs, projects and policies on sustainable use and exploitation of soil resources for agricultural use.

Within the MINAG, **Agro Rural** is a key stakeholder as implementing agency for the DELOSI project. Its mandate includes promoting and managing successful models of rural development to facilitate the articulation of public-private investment and contribute to the inclusion of rural families while promoting knowledge management to highlight successful experiences in rural development. All IFAD-funded projects area managed by Agro Rural under the Central Implementing Nucleus modality.

The Project will above all involve Agro Rural, as activities will be closely linked in order to ensure that best agricultural practices, pursued within the context of the DELOSI project, are consistent with environmental considerations. Basin Coordinators to be part of the PIU will be located in Agro Rural premises in the selected watershed basins and staffs will be involved in the deliberations and actions of the *Ad hoc* Basin Committees. Close collaboration will be sought with the Directorate of Flora and Fauna related to Project activities aimed at conservation of relict forest and support provided by the Project and Agro Rural in the field of South American camelids that are a source of income in the upper parts of the selected watershed basins. Recognizing the central role of the ANA and SERNANP, the Project will include a representative of these agencies in the PAC and a representative of their local team in each of the selected watershed basins in the *Ad hoc* Basin Committees.

Other stakeholders in the national government sphere include: (a) the **Agency for Formalization of Informal Property (COFOPRI)** responsible for implementing a process of formalization of land properties at the national level, in order to generate legally secure property rights that are sustainable over time including implementing and controlling actions aimed at formalization of fallow land titling and those of peasant communities with the MINAG and, (b) the **National Institute of Statistics and Informatics (INEI)** responsible for regulating, planning, directing, coordinating, evaluating and monitoring the country's official statistical activities including carrying out studies on the characteristics and determinants of poverty, quantifying each of the variables describing poverty in Peru based on a National Household Survey (ENAHO). The Project will approach COFOPRI especially regarding land tenure issues as they relate to PES schemes and INEI in determining poverty conditions in the Project area.

Other stakeholders include **regional and local governments**. The Project area includes the Lima, Cajamarca and La Libertad Regional Governments and 8 provincial local governments. Since adoption of a decentralized policy by the government of Peru, Regional governments have under their *aegis* a multitude of tasks previously under the responsibility of central government ministries including management of natural resources and regional atural protected areas under the jurisdiction of Natural Resources Directorate. The Cajamarca Regional Government has adopted a biodiversity conservation strategy and has contributed to activities under a PES related project implemented by CARE in the Jequetepeque basin. Local governments or municipalities in each province and district are important stakeholders as they have under their mandate to promote development and the local economy among other responsibilities. In larger provincial municipalities economic development offices have been established and are relevant entities in pursuing local development. Both regional and local governments benefit from royalties from extractive industries located in their territories.

The Project will closely collaborate with regional governments in the selected watershed basins and build on the experience gained in ensuring their participation in PES schemes, Representatives of Regional Governments will participate in the deliberations of the *Ad hoc* Basin Committees to be established. Involvement of local governments will be pursued especially in conjunction with economic activities being funded under the DELOSI project. A representative of the provincial municipalities include in the Project area would participate as a member of the *Ad hoc* Basin Committees.

Private sector stakeholders include above all hydroelectric companies in both watersheds. SN Power in the Jequetepeque watershed basin, owned by Statkraft and Norfund, a Norwegian risk capital investor in emerging markets, funded by the Norwegian Government. SN Power operates the Gallito Ciego hydropower plant located in La Libertad region. It was purchased by SN Power in November 2003. The plant is located downstream of the Gallito Ciego Dam, which is primarily used for irrigation purposes. The dam is not part of the Gallito Ciego assets and is operated by the water authorities. Hydroelectric companies are also present in the Cañete river basin where CELEPSA, a subsidiary of Peruvian cement maker *Cementos Lima SA*, operates a 220 MW El Platanal hydroelectric power plant, generating 1 million MW on average per year.

The Project will seek to involve these companies in contributing to the PES schemes through the establishment of sinking funds. Representatives of the companies will be members of the *Ad hoc* Basin Committees even prior to their eventual financial contributions and in the event a contribution is made they will sit in special Fund Boards which, will be created for decision making on the utilization of the proceeds from the Funds.

Other relevant and significant private sector entities are **Water User Boards or Associations (WUB)** which are private, nonprofit, and collectively owned organizations responsible for the operation and maintenance of collective irrigation infrastructure and the administration of water tariffs in one particular irrigation district. WUBs consist of representatives of Irrigation Commissions (*Comisiones de Regantes*) and non-agricultural water users groups which are responsible for water distribution in their irrigation subsectors and must participate financially in the planning and maintenance of the collective irrigation infrastructure. WUBs elect a Board of Directors to administer financial resources and implement WUB agreements and dispositions. These organizations are more prevalent in the coastal regions of the Project area. The Project will involve WUBs in the two selected areas and a representative of the existing Boards will be members of the *Ad hoc* Basin Committees

Other stakeholders include farmer associations and **Peasant Communities** in the Project area understood as an institution conformed by organized peasant families whose main economic activities are carried out based on existing resources within their communal territory (Gonzales 1994:175). These communities will benefit from participation in the implementation of natural resources conservation sub projects and will participate in deliberations of the *Ad hoc* Basin Committees with the exemption of Committee meetings which will consider sub project proposals originated by them.

**B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):**

The project will deliver different natural, social and economic benefits by ensuring the provision of environmental services mainly water and others not directly considered in project design such as carbon and scenic beauty as well as provide financial incentives to communities and families in the project area for them to engage in the conservation and sustainable use of the landscapes.

The benefits for the GEF additional funds to DELOSI will reach the target group by means of: a) strengthening target groups producers organizations for the regulation and provision of ecological services, mainly water b) conservation and/or sustainable use of at least 23,866 hectares of High Andes ecosystems<sup>12</sup>, d) enhancement of the position of rural

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<sup>12</sup> Including relict forests, *bofedales* or *peat bogs* and other wetlands, using PES/CES schemes centered in better water management and biodiversity conservation

woman and youth to catalyze incremental benefits derived from more focused environmentally friendly agricultural practices<sup>13</sup> and d) conservation of important and significant natural habitats for in situ conservation of biological diversity, including endemism, vulnerable species and threatened ecological communities;

Funding of local initiatives by communities and associations in the context of this project and the DELOSI project will strengthen the capacity of local organizations and associations in poor rural areas to adopt best agricultural practices while implementing profitable business ventures and conserving natural resources in their localities. The establishment of *Ad hoc* Basin Committees will further democratic decision-making process at the local level. These committees would operate on a wider scale than the Local Resource Allocation Committees to be established in the context of the DELOSI project as the Basin Committees will include the participation of a wider range of stakeholders and would serve as the basis for the creation of watershed Councils as foreseen in hydric resources legislation.

The project will directly benefit 2164 families in both selected basins, involved in training of specific conservation and sustainable use of conservation of natural resources; 110 community groups formed and trained (30% led by women headed households). These and additional families in the project area will also access funding from the DELOSI project on a demand-driven basis. It is expected that, through a comprehensive communications initiative, it will be possible to deepen understanding of the merit of PES schemes among water users in the medium and lower parts of the basins including rural and urban inhabitants, agricultural firms, mining companies and others that receive water from the selected watersheds. The project will contribute to the objective of the DELOSI project in reducing poverty conditions in areas of intervention by increasing incomes by 30 % while reducing malnutrition by 10 percentage points and ensuring food security of 50 % of all rural families in the project area.

In addition and through the communication campaign strategy the GEF funds will contribute to share information and knowledge between greater audience.

**TABLE 9: SOCIOECONOMIC BENEFITS DELIVERED BY GEF**

The GEF funds will contribute to the DELOSI objective of reducing the environmental vulnerability of poor rural families in order to increase their income, employment and food security, within a framework of gender equality and youth inclusion.	
Increased knowledge of target population, linked to the environmental services schemes, on the causes and effects of ecosystems degradation, allowing them to be able to respond.	A better understanding of the specific need of poor small producers and their formal and informal organizations regarding the direct environmental impacts they face;
Increased capacity of Government Agencies and rural users to manage environmental services to promote conservation of biodiversity.	Improved capacities for decision taking by the targeted users-beneficiaries, and key operating units within MINAG and other government bodies
Increased resilience of agriculture systems by promotion the implementation of environmental friendly agricultural practices.	Strengthened local participation around the management of natural resources and their relation to agriculture.
Improved management and conservation of natural resources (water, soil, biodiversity).	Increased incomes for rural poor families.

<sup>13</sup> Through close collaboration with DELOSI, the Project will also support the use of good agricultural practices by local farming communities such as: reducing erosion through hedging, ditching and terracing, application of fertilizers at appropriate moments and in adequate doses, maintaining or restoring soil organic content, by manure application, use of grazing, crop rotation, reducing soil compaction issues, maintaining soil structure, preventing soil salinization by limiting water input to needs, and recycling water whenever possible and avoiding drainage and fertilizer run-off among others.

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

The following exercise has been carried out to establish the cost effectiveness of the proposed project. Three scenarios:

- (a) the project as it is;
- (b) a “stand alone” project;
- (c) a project without trust funds.

Each scenario was projected on a five year horizon and discounted at 12% as it is common practice.

The exercise included GEF Grant costs only. The reason being for this procedure is that IFAD and Government costs have already undergone an economic and financial evaluation.

The following are the specifications of the scenarios.

*The project as is.* They include recurrent costs at 4.7% of total costs; subprojects under component 1 are 43.3% of total costs which represents the major conservation investment; and the funds for component 2 are 52% of total costs.

*A stand-alone project.* Under this scenario, current costs are increased to amounting to 16% of total projects costs. Conservation subproject costs under component 1 remain at 43.2% of total costs. The costs of component 2 are reduced to 40.7%.

*A project without trust funds.* Under this scenario, current costs increase to 16% of total costs. Conservation subproject costs increase to 79.8% of total cost under component 1. Component 2, however, suffers a great deal and reaches 4.2%.

The following table indicates the major targets under the three scenarios envisioned.

**TABLE 10: SCENARIO TARGETS AND NARRATIVE**

Scenario	Targets	Narrative
Project as it is	2,164 beneficiary families 23,866 ha conserved 2 PES/CES schemes operational 2 Trust Funds 2 Watershed committees operational	The Project relies on DELOSI host project. It takes on the AGRORURAL expertise and locally available agencies. It promotes wide consultation and beneficiary involvement for the PES scheme to take place. It promotes two operational Trust Funds for long term sustainability.
Stand Alone Project	2,164 beneficiary families 23,866 ha conserved 1 PES/CES scheme operational 2 Trust Funds 2 Watershed committees operational	The Project will open local agencies to have ends met. The recurrent costs simulated allocation will only establish 1 PES/CES scheme. The Trust Funds will be operational by PY1.
Project Without Trust Funds	2,164 beneficiary families 30,000 ha conserved 2 PES/CES schemes operational	The Project will open local agencies to have ends met. By PY5 non-compliance takes place under PES/CES schemes. No trust funds to cover recurrent costs of the watersheds after PY5.

The Project, as is, has a number of advantages unobserved in the other two scenarios envisioned. When Net Present Values are calculated, it beats the “Stand Alone” scenario by US\$ 241,000. Also, it is more cost effective than the “No Trust Fund” project by USD 158,000.

One thing that stands out in this last scenario is that having no Trust Fund means having no provision for current costs when the Project ends. This is a real advantage when one is to consider projects in the long run. Also, the Project as is shows funds allocation, for component 2, which may look superfluous at first sight. However, scenario three makes it clear that, under component 2, all the consultative and preparation activities for the PES effort are worthwhile.

**TABLE 11: THREE SCENARIOS COST EFFECTIVENESS ANALYSIS**

	Totals Including Contingencies					Total	Percentage
	2014	2015	2016	2017	2018		
<b>THE PROJECT AS IT IS</b>							
Conservation and Sustainable Management of High Andes Ecosystems	27 622	751 750	751 750	832 878	-	2 364 000	43.3
Improvement of the Institutional Framework for Environmental Services for Implementation of PES/CES schemes	297 265	2 131 359	135 159	121 909	152 409	2 838 100	52.0
GEF Project Management	50 984	50 984	50 984	50 984	50 984	254 920	4.7
<b>Total PROJECT COSTS</b>	<b>375 871</b>	<b>2 934 093</b>	<b>937 893</b>	<b>1 005 771</b>	<b>203 393</b>	<b>5 457 020</b>	<b>100.0</b>
<b>STAND ALONE PROJECT</b>							
Conservation and Sustainable Management of High Andes Ecosystems	27 622	751 750	751 750	832 878	-	2 364 000	43.2
Improvement of the Institutional Framework for Environmental Services for Implementation of PES/CES schemes	2 036 500	45 500	54 500	47 750	43 250	2 227 500	40.7
GEF Project Management	511 906	86 863	86 584	86 084	104 084	875 520	16.0
<b>Total PROJECT COSTS</b>	<b>2 576 028</b>	<b>884 113</b>	<b>892 834</b>	<b>966 712</b>	<b>147 334</b>	<b>5 467 020</b>	<b>100.0</b>
<b>NO TRUST FUND PROJECT</b>							
Conservation and Sustainable Management of High Andes Ecosystems	1 427 622	1 051 750	1 051 750	832 878	-	4 364 000	79.8
Improvement of the Institutional Framework for Environmental Services for Implementation of PES/CES schemes	36 500	45 500	54 500	47 750	43 250	227 500	4.2
GEF Project Management	511 906	86 863	86 584	86 084	104 084	875 520	16.0
<b>Total PROJECT COSTS</b>	<b>1 976 028</b>	<b>1 184 113</b>	<b>1 192 834</b>	<b>966 712</b>	<b>147 334</b>	<b>5 467 020</b>	<b>100.0</b>

NPV OF PROJECT AS IT IS (@12%)	\$4 096 809.52
NPV OF STAND ALONE PROJECT (@12%)	\$4 338 299.59
NPV OF NO TRUST FUND PROJECT (@ 12%)	\$4 255 277.55

The Proceeds of the Trust Funds: In order to assess the potential for continued funding of conservation efforts in selected watersheds three scenarios of regarding proceeds of the Trust Fund were developed.

Base case. At present, it has been estimated that under PROFONAMPE’s management, trust funds proceeds yield around 7%. Such a gross average is subject to a number of oscillations (Stock Exchange mood, exchange rates variation, Peruvian financial market development and regulations, among others).

Higher Case. Trust fund proceeds may eventually reach 9%. This case will imply a long and sustainable growth period, overwhelming entrepreneurial confidence, and Peruvian public debt well under control, among other factors.

Lower Case. Trust Fund proceeds reach a lower average of 2%. This is the worst case scenario in which all economic agents will be under “bear markets”, large financial uncertainty, and huge yield downward oscillations.

There were estimated co-financing scenarios in which the actual GEF funded Trust Fund, currently at US\$ 2 million, leverages other amounts. The base case scenario is US\$ 300,000 leverage, and the upper case is US\$ 2,000,000 leverage. Two shapes of the yields over a twenty year period have been envisaged. One is a U-shaped yield curve indicating a fast downside followed by a bottom, of approximately two years, and then an upward swing. Another shape is the L-shape curve indicating a downside turn to remain at a low yield for a prolonged period of time. For comparison purposes, estimated present values of the yield over a ten year period are considered.

The results of the estimation are as follows.

**TABLE 12: YIELD SCENARIOS OVER A TWENTY YEAR PERIOD**

	Start up Capital	Leverage	Total Capital	Present Value	Yield range		Minimum starts in Year
					Maximum	Minimum	
Lower case L shape	2000000	300000	2300000	\$537 950	161000	46000	3
Upper case L shape	2000000	2000000	4000000	\$935 566	280000	280000	3
Lower case U shape	2000000	300000	2300000	\$833 880	161000	46000	5
Upper case U shape	2000000	2000000	4000000	\$1 450 227	280000	80000	6

This table highlights the need to leverage additional funds, particularly under the lower case U shape scenario. Leveraging remains in MINAMs negotiating power, and it is dependent on the social interest policy of two key

stakeholders; the hydro electrical firms CELEPSA on the one hand, and the Regional Authority of Cajamarca, on the other.

The minimum proceeds of US\$ 46,000 will cover an estimated number of recurrent costs. The estimates of those costs may be as follows.

**TABLE 13: LOWER PROCEEDS FROM TRUST FUNDS**

Description	Area (ha)	Unit	Unit Cost	Detailed Description	Estimated Cost
Hydrological M&E	6000	global	4394	global technical assistance	4394
Wetlands keepers		man day	13	30 man days	390
Training		week	814	3 weeks	2443
Revegetation of relict forests			12916	inputs provision	12916
Invigilation of relict forests		man day	15	40 days in PY2 and PY3	603
Revegetation of grasslands		global	3814		3814
Management of watersheds		week	357	60 weeks	21439
<b>Total cost</b>					

It can be inferred that the Trust Fund proposed has a number of advantages; one of them is that, being at perpetuity, it covers recurrent costs for a number of years. In the lower case scenario, the yields help cover only scant activities, yet it will be a cost worth taking.

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

The Project will institute a monitoring and evaluation (M&E) system to be implemented according to IFAD and GEF procedures and guidelines<sup>14</sup>. The M&S system will be designed based on the activities, indicators and means of verification specified in the Logical Framework. M&E activities will follow the principles of adaptive management to update information needs and indicators overtime and participatory evaluation.

**Responsibilities and Linkages.** M&E system operations will be under the direct responsibility of the Project Coordinator and a M&E Project Officer to be contracted on a half- time basis with Grant funds for the duration of the Project. The M&E Officer will be responsible for tracking project progress and achievement of results for which he/she will ensure that the necessary information is timely gathered and processed in order to verify Project progress and compliance with objectives and planned activities. The M&E Officer will be supported by a Technical Assistant during three years of Project implementation.

The M&E Officer will contribute to six-monthly, annual, mid-term and final reports of the Project. He/she will continuously provide feedback to the Project Coordinator in order to give timely advice on required adjustments if needed. This will be undertaken in order to facilitate an adaptive management of the Project. Any suggested adjustments to Annual Work Plans and Budgets (AWP&B) will be reflected in Progress Reports for consideration by the MINAM and IFAD for their consent and endorsement.

Field staff of Agro Rural and the SERNANP, who would be involved in the identification with community participation of conservation and restoration of High Andean ecosystems, will ensure that information on implementation is provided in a timely manner.

The M&E Officer will collaborate with the M&E officer of Agro Rural to be appointed in the context of the IFAD funded DELOSI project by providing information required for the submission of annual reports related to IFAD’s Results and Impact Measurement System (RIMS) more specifically as it relates to first and second level indicators in terms of: a) natural resources, b) agricultural technologies and production and, c) policy and community programming.

**Participatory evaluation.** The M&E team will compile information on Project progress using participatory methods and field verifications. Appropriate participatory methods involving men and women will be selected in order to gather

<sup>14</sup> IFAD’s Project M&E Guide: <http://www.ifad.org/evaluation/guide/index.htm>

information on aspects that may be preventing the Project from achieving planned outputs, any emerging risks and opportunities for success, unintended and intended outcomes, lessons learned, and immediate required actions to ensure the satisfactory progress of the Project.

Methods to be selected will consider IFAD guidelines<sup>15</sup> for this purpose. The M&E team will ensure the involvement in these activities of all stakeholders directly impacted by the Project and any other stakeholders whose involvement and opinions are relevant for the successful implementation of the Project.

**System design.** The M&E team will be responsible for the design of the M&E system at two levels/purposes: i) at the Project level to be operational during the Project's duration period and, ii) at the specific PES schemes level to be operational during and beyond Project duration. The first level would be designed based on the Logical Framework to be further detailed in the Project's AWP&B.

The Project's AWP&B will be formulated by the Project Coordinator in collaboration with the Project's M&E team and with contributions by MINAM/SERNAMP and Agro Rural staffs. The plans will be consulted and shared with local actors to ensure their engagement and support while guaranteeing the pertinence of proposed specific activities and timeframes to local conditions and contexts. For this, the Project will hold one inception workshop in each watershed and subsequent annual planning workshops in each watershed.

At the Trust Fund level and implementation of the PES scheme in general, the M&E team jointly with MINAM will design an M&E System for each of the PES schemes to be implemented in the Cañete and Jequetepeque River Basins. This system should permit to evaluate progress made, possibilities and constraints during the Project's lifetime and beyond it:

- a. The financial performance of the PES fund -which includes GEF's funds deposited in an endowment fund and other contributions from ES beneficiaries or others.
- b. The level and quality of the investment of the revenues of the endowment fund and ES beneficiaries' contributions. Indicators for evaluating the quality of investments would consider field experience gained of Component 1 when implementing conservation, restoration and sustainable land use practices in the watersheds.
- c. The impacts of Component 1 and subsequent PES investments on the hydrological ecosystem services. For this, a hydrological monitoring system would be designed and implemented for measuring the impact on land use/management practices in the watershed. In this regard, this network may require to be implemented during early stages of the Project and to be maintained beyond it as part of the PES scheme operation. Technical assistants would be hired by the Project to assist in this process.
- d. The status of formal agreements between PES contributors (ES beneficiaries apart from GEF) and the PES fund.
- e. Advances in the creation of the *ad hoc* watershed committees including the development of appropriate tools to track their transparent operation, rules for stakeholder's participation and clear definitions of their role in the operation of the PES schemes.
- f. Creation of formal procedures for decision-making, participation and financial management of the PES schemes.

The purpose of designing a PES M&E System as part of the PES operational requirements is to contribute to the sustainable functioning and monitoring of the PES scheme beyond the Project's life. This may provide insights on the actual environmental impacts of these economic mechanisms and their financial sustainability.

**Tracking Tools.** The Project's M&E Team will ensure that the Biodiversity Tracking Tool will serve to measure progress in achieving the impacts and outcomes established at the Project level under the biodiversity focal area. Data will be aggregated for analysis of directional trends and patterns at a GEF 5 portfolio-wide level to inform the development of future GEF strategies and to report to the GEF Council on portfolio-level performance in the biodiversity focal area. The Tracking Tool will be further applied at Project mid-term, and at Project completion.

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<sup>15</sup> <http://www.ifad.org/evaluation/guide/annexd/index.htm>



**Aichi Targets<sup>16</sup>** The M&E Team will also ensure that progress in meeting the Aichi Targets is contained in Progress Reports as they relate to: a) people awareness of the values of biodiversity and the steps they can take to conserve and use it sustainably, b) integration of biodiversity values into national and local development and poverty reduction strategies and planning processes that are being incorporated into national accounting, as appropriate, and reporting systems, c) elimination of incentives, including subsidies, harmful to biodiversity are being phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied; c) steps taken by Government, business and stakeholders at all levels to achieve or implement plans for sustainable production and consumption, keeping the impacts of use of natural resources well within safe ecological limits; d) reduced rate of loss of all natural habitats, including forests as well as significant reductions of degradation and fragmentation, e) sustainable management of areas under agriculture, aquaculture and forestry thus ensuring conservation of biodiversity; e) levels of pollution, including from excess nutrients that are not detrimental to ecosystem function and biodiversity; f) maintenance of genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species and development and implementation of strategies for minimizing genetic erosion and safeguarding their genetic diversity; g) contributions of ecosystems that provide essential services, including services related to water that contribute to health, livelihoods and well-being which, are being restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable ; h) enhanced ecosystem resilience and the contribution of biodiversity to carbon stocks has through conservation and restoration of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification; i) improved knowledge, science base and technologies relating to biodiversity, values, functioning, status and trends, and the consequences of its loss, are widely shared and transferred, and applied; j) development and adoption by national authorities of policy instruments which, and being implemented and are effective, participatory and updates on the national biodiversity strategy and action plan.

**TABLE 14: M&E ACTIVITIES AND BUDGET**

	<b>Responsibility</b>	<b>GEF (US\$)</b>	<b>Timeframe</b>
Project coordinator recruitment	MINAM / GEF / IFAD	208,000	At Project start-up
Staff recruitment (M&E team)		109,610	Within two months following project start up
Inception workshop (first annual activity planning for two watersheds)	MINAM/Project coordinator and M&E team	2,000	Within three months following Project start-up
Second annual planning workshop (in two watersheds)		3,000	Within the first month of PY 2
Third annual planning workshop (in two watersheds)		3,000	Within the first month of PY 3
End of Project workshop		3,000	At Project completion
Equipment (GPS, laptops, hydrological, climatic stations, motorcycles)	PROFONAMPE	68,544	Within six months following project start-up
Hydrological impact analysis	MINAM/Project coordinator and M&E team	12,300	By the first semester of PY 5
Assessment of implemented PES schemes		13,120	By the first semester of PY 5
Design of PES M&E system (procedures, tools and manuals)		16,400	During first semester of PY 1
Mid Term Report	MINAM / GEF / IFAD	9,840	Within the first month of PY 3
End-of Project Report		9,840	Within second quarter of project completion
<b>TOTAL</b>		<b>458,654</b>	

<sup>16</sup> <http://www.cbd.int/sp/targets/>

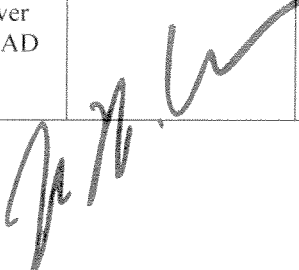
**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
José Antonio González Norris	Peru GEF Operational Focal Point	MINISTRY OF NATURAL RESOURCES (MINAM)	12/20/2011

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

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

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Mr. Kevin Cleaver Associate VP, IFAD		June 17, 2013	Ms. Estibalitz Morras ECD/LAC IFAD	(+39) 0654592438	e.morras@ifad.org

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Narrative	Target indicators	Verification methods	Assumptions
<p><b>Goal</b></p> <p>Contribute towards increased incomes and improved livelihoods of small scale agricultural producers in areas of the highlands</p>	<ul style="list-style-type: none"> <li>Contribute towards increased income of target populations by 30%, diminished malnutrition by 10 percentage points and 50 % of Project beneficiaries increase their food security. Broadly equal numbers of male and female beneficiaries.</li> </ul>	<ul style="list-style-type: none"> <li>Baseline survey</li> <li>Mid-term and end-of project evaluation, disaggregated by sex and including appropriate gender analyses of key issues</li> <li>Living Standards Measurement Surveys (LSMS), targeting women, youth</li> </ul>	<ul style="list-style-type: none"> <li>Availability of sex-disaggregated data and expertise</li> </ul>
<p><b>Objective</b></p> <p>Protect and sustainably use High Andes ecosystems for the provision of environmental services (biodiversity and water), by transferring economic resources from downstream beneficiaries to upstream rural communities.</p>	<ul style="list-style-type: none"> <li>23,866 hectares of High Andean ecosystems are conserved or sustainable used</li> <li>ES users transfer economic resources to High Andean communities (ES providers) for the conservation and sustainable use of High Andean ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Field verifications of effective implementation of proposed conservation and sustainable use measures in targeted areas</li> <li>Formal agreements signed between ES users and Trust funds managers</li> </ul>	<ul style="list-style-type: none"> <li>Expressed interest by communities in participating in Project activities</li> <li>ES beneficiaries willing to contribute to PES schemes</li> </ul>
<p><b>Component 1. Conservation and Sustainable Management of High Andean Ecosystems</b></p>			
<p>R 1.1 High Andean communities are able to recognize importance of conservation of natural resources and develop possible interventions for management of ecosystems</p>	<ul style="list-style-type: none"> <li>110 community groups formed and trained 30% led by women headed households and youth aiming for equal participation in all groups</li> <li>110 Subproject proposals developed, funded and implemented by communities and including the concerns of men and women, youth and elderly groups</li> </ul>	<ul style="list-style-type: none"> <li>Project progress reports</li> <li>Mid-term and End of Project evaluation</li> <li>Training reports and audio visual records</li> <li>Sub-projects implementation contracts and arrangements</li> <li>Banking records for financial resources transferred</li> </ul>	<ul style="list-style-type: none"> <li>High participation rate by local communities in the Project area</li> <li>Local groups are willing and able to implement the subprojects</li> </ul>
<p>R 1.2 High Andean communities conserve and/or adequately manage peat bogs, relict forests, marshlands, and rangelands</p>	<ul style="list-style-type: none"> <li>5,917 has. relict forests (26 sub projects)</li> <li>2 113 has. Peat bogs (“bofedales”) (14 subprojects)</li> <li>15 837 has. <i>grasslands</i> (“<i>paramos, punas and jalcas</i>”) conserved and/or managed (70 sub projects)</li> </ul>	<ul style="list-style-type: none"> <li>Field verification reports and audio visual records</li> <li>Geo referenced boundaries of conserved and adequately managed areas</li> <li>Sub-projects implementation contracts</li> </ul>	<ul style="list-style-type: none"> <li>Subprojects are resilient to extreme weather events</li> <li>Invasive species are controlled</li> <li>Water is available in the Project area</li> <li>MINAM and Agro Rural share common approaches and work in a coordinated manner.</li> </ul>

Component 2. Improvement of the Institutional Framework for ES in Peru through Implementation of PES/CES schemes			
R2.1 High Andean communities and downstream beneficiaries of hydrological services, regional and local authorities able to jointly analyze and address problems and solutions towards establishment of a common institutional platform in relation to PES schemes.	<ul style="list-style-type: none"> <li>• Communication strategy designed and implemented;</li> <li>• Signed formal ratification of actor's intention to participate in the PES schemes.</li> <li>• Two watershed <i>ad hoc</i> committees established and operational</li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination materials</li> <li>• Meeting reports</li> <li>• Letters of Intent duly signed</li> <li>• Committee meetings</li> <li>• Summary records</li> <li>• Agreements subscribed by participants Audio visual material</li> </ul>	<ul style="list-style-type: none"> <li>• ES beneficiaries and providers are willing and interested in participating in PES negotiation and implementation</li> <li>• Communication strategy effectively implemented disseminating PES concept, objectives and required level of actor's participation.</li> <li>• Stakeholders including women willing to actively participate in the watershed <i>ad hoc</i> committees</li> <li>•</li> </ul>
R2.2 Legally-viable PES schemes designed and agreed by watershed <i>ad hoc</i> committee	<ul style="list-style-type: none"> <li>• Legal framework revision with consideration of substantive issues for PES design;</li> <li>• PES procedures and operational manuals approved by watershed <i>ad hoc</i> committees;</li> <li>• Two Trust Funds created and operating.</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting records and agreements subscribed agreements</li> <li>• Trust fund establishment documentation</li> <li>• Bank statements</li> <li>• Financial reports</li> <li>• PES operational manuals</li> </ul>	<ul style="list-style-type: none"> <li>• Participation of PES actors is legally viable</li> <li>• ES "buyers" disburse funds timely for Trust Funds creation</li> <li>• Watershed <i>ad hoc</i> committees are an enabling institutional platform to reach PES required agreements</li> </ul>
R2.3 High Andean communities able to undertake further conservation of ecosystems from proceeds of ecosystem trust funds	<ul style="list-style-type: none"> <li>• Amount of resources transferred to High Andean ES providers</li> <li>• Number of subprojects oriented to provide ES and conserve biodiversity developed, funded and implemented by communities in targeted areas</li> </ul>	<ul style="list-style-type: none"> <li>• Bank statements</li> <li>• Auditing reports</li> <li>• Legally binding contracts</li> <li>• Legal recognition documents</li> <li>• Field verification reports and audio visual records</li> <li>• Geo referenced boundaries of conserved and adequately managed areas</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance with contractual conditions between payers and buyers of the environmental service</li> <li>• Administrative selection is adequate to meet project goals</li> <li>• Spatial spill overs are adequately observed by project implementers</li> <li>• Leakages are avoided purposefully by Project stakeholders</li> <li>• Trust fund contributors provide timely funding</li> </ul>
R2.4 Rules and regulations of the Peruvian ES legislation drafted considering Project outcomes, lessons learnt and inputs from multiple stakeholders that are pertinent in the national context	<ul style="list-style-type: none"> <li>• Working group on PES law rules and regulations established and recognized by the MINAM</li> <li>• Rules and regulation for ES legislation agreed upon with different stakeholders (including local communities, indigenous groups, regional and local authorities, multiple water user sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation meetings proceedings and records</li> <li>• Summary of agreements</li> <li>• Signed list of participants</li> <li>• Final proposal of rules and regulations is officially submitted by the working group for Ministerial approval</li> <li>• Lessons learnt publications</li> </ul>	<ul style="list-style-type: none"> <li>• Peruvian Congress expeditious passage of the Environmental Services Law</li> <li>• Favourable political conditions for the approval and adoption of proposed rules and regulations</li> </ul>

**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).

The project document accommodates comments that have been received- It was also shared with the Government of Peru prior to submission and cleared through the IFAD internal quality control processes.

**GEF Secretariat comments.** The GEF Secretariat review noted that initial observations had been addressed by 4<sup>th</sup> and 10<sup>th</sup> January, 2012 .Notwithstanding, the following items needed to be addressed at CEO endorsement/approval.

Item	Response
GEF BD funds should not be used for restoration/rehabilitation work	The Project Design Report does not include restoration or rehabilitation work which is covered under the IFAD funded Strengthening Local Development in the Highlands and High Forest Areas project (DELOSI) .
Indicators and targets for status of GEF species and ecosystems should be developed	Regarding targets for GEF ecosystems, under “Project Description” section (“Project area and target group”), Annex 2 (“targeting section”) and Annex 4, it is specified the targeted ecosystems in this Project. With respect to current protection status of these ecosystems, these are -as mentioned in the GEB section, officially recognized by Peru as underrepresented in its National System of Protected Areas and hence, a target priority by the National Services of Protected Areas (SERNANP). For this reason, in the logic frame one of the main indicators to be used is the geographic coverage of these ecosystems effectively conserved by the Project. In relation to species status, this is mentioned in “Project Description” and Annex 4 sections. Most of this information is available at current species inventories undertake in the Canete basin and existing diagnostic studies in the Jequetepeque Basin. However, in order to make sure the project not only improves the coverage of protected strategic ecosystems but species diversity as well, it has included additional baselines studies to complement the knowledge compiled during the formulation of this Project and biodiversity conservation impact studies as part of the M&E Project strategy.
Guidance from STAP on PES should be fully incorporated into project design.	In general, the formulation team took note of the comments and appreciations contained in the GEF’s Scientific and Technical Advisory Panel (STAP). Thus, the proposed PES scheme for this Project consists in a layered user-financed PES scheme (one modality recommended by the STAP) <sup>17</sup> . This design permits to use GEF funding as a sustainable financial platform by the creation of Trust funds. The revenues from the Trust funds would be oriented to cover biodiversity conservation and recurrent costs of M&E activities (also a recommendation from the STAP). Permanent contributions from others ES “buyers” would be used to cover the cost of direct interventions for promoting adequate land use, management practices and conservation actions in areas on which the delivery of hydrological ES depend on. This design is feasible in the selected Project sites since there is an important overlap of areas that are relevant for both, water provision and biodiversity conservation. Another part of the GEF grant would be used to invest in early implementation of conservation measures in order to test their effectiveness and demonstrate this to other potential ES buyers, as a persuasive strategy (also a modality of intervention proposed in GEF PES STAP).

<sup>17</sup> Layered PES schemes: Multiple buyers of separate ES jointly finance start-up costs and/or recurrent costs of ES provision from the same plot (GEF, 2010. Payments for Environmental Services and the Global Environmental Facility. Scientific and Technical Advisory Panel document.)

	Project design includes a Monitoring and Evaluation System (see Annex 6) in order to study the impacts of this approach. According to the GEF STAP, few existing PES consider undertaking impact studies. Thus, the PES schemes to be implemented by the Project would have an inherent intention and commitment to evaluate environmental and socioeconomic impacts.
Clear description of selected PES related field activities and breakdown of costs.	Field activities have been fully described in the Project Design Document prepared by the Implementing Agency

**Comments from Council at work program inclusion.** The representatives of Canada and Germany made a number of comments which have been addressed during the PPG phase.

The representative of **Canada** noted that although the project's co-financing levels are very good, these were based entirely on a US\$29 M hard loan from IFAD associated with the broader IFAD Programme for Local Development Support in Areas of the Highlands and High Rain Forest Areas requesting that information be provided regarding which amounts were in-fact GEB-related co-financing and on how the project plans on repaying this loan. In fact the IFAD was negotiated in mid-2012 during which the Government of Peru reduced the amount of the loan to US\$ 20 M and agreed to co finance the project in an amount of US\$ 8 M. A Loan Agreement between IFAD and the Ministry of Economy and Finance of Peru was signed in February 2013 which sets out the repayment schedule and conditions.

Regarding the amounts which are considered GEF related, a final Project appraisal was undertaken by the Implementing Agency in March 2013 that allowed for discussions with national authorities regarding this issue and further clarified contributions by other agencies such as the National Water Authority and the National Service for Protected Areas as well as the Ministry of the Environment.

In order to arrive at a more precise figure regarding DELOSI contributions, estimations were prepared based on geographic coverage by DELOSI in the Cañete and Alto Jequetepeque basins. It is now estimated that the IFAD loan and government contribution amounts to US\$ 13,302,792 in investment costs, and US\$ 1,333,234 in project Management costs based on geographic and GEF related expenditures. .

Comment	Response
How does water resource management directly relate to the GEF's BD-2 objective?	<p>The Project will achieve: (i) conservation of 5,917 hectares of high-altitude relict forests, (ii) conservation and sustainable management of at least 2,113 hectares of peatlands and (iii) conservation and sustainable use of at least 15,837 hectares of other wetlands (<i>pajonales, páramos</i>).</p> <p>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 <i>in situ</i> conservation of biological diversity, including endemisms, vulnerable species and threatened ecological communities and; (c) regulation and provision of ecological services, mainly water for different but critical uses; and (d) conservation of ecosystems underrepresented in the national system of protected areas contributing in this form to Aichi targets.</p> <p>Thus, the Project intends to conserve, improve or use sustainably biodiversity and ecosystems in the central High Andes of Peru ( peat bogs <i>bofedales, Polylepis</i> forests (<i>queñoales</i>) - high-altitude forests, puna –alpine grasslands) by investing, and promoting sustainable transfer of economic</p>

	<p>resources from the private and public sector for the conservation and sustainable use of these ecosystems. By engaging the private sector in general, but more specifically relevant water users, such as the agricultural sector, domestic users, industry, hydroelectricity generation and mining companies, the project would contribute to improve the livelihoods of local communities and at the same time maintain or enhance the conservation of the singular biodiversity of these ecosystems.</p> <p>This will be possible because the project will work in High Andean ecosystems where there is an important overlap of areas that are relevant for both, water provision and biodiversity conservation. This holds true for many other Andean watersheds whose upper part ecosystems play a dual role in the provision and regulation of water benefiting millions of water users and in the conservation of biological diversity. These High Andean Ecosystems are declared as fragile ecosystems by the General Environmental Law (Law 28611) of Peru due to its strategic importance for biodiversity conservation and water provision. Similarly they are officially recognized by the RAMSAR convention due to their valuable biodiversity, their function as regulators of water, and as living space of many local and peasant communities and indigenous peoples that need to be preserved</p>
<p>How can the proponents ensure a sustainable flow of income into the PES schemes if contributions are voluntary</p>	<p>The sustainable flow of income to the PES may be achieved by: 1) ensuring that one part of the PES Fund would have the form of an endowment fund where permanent revenues will assure a small but permanent flow of income to cover M&amp;E and recurrent biodiversity conservation costs 2) Setting up institutional platforms for PES negotiation and operation for bringing together representatives of ES provider's and beneficiaries. Beneficiaries are expected to contribute in a regular basis to the Fund. It is worth noting that MINAM has already started conversations with the agriculture and hydropower generations sectors who have showed interest in contributing to the PES Fund in a regular basis. Moreover, CELEPSA and SN POWER (the hydropower companies of the two watersheds) are already funding conservation projects in a regular basis and in the case of CELEPSA, there is willingness to increase this contribution once the PES Fund will be created 3) The National Water Authority (ANA –Spanish acronym) currently charges the different water users sectors an amount to support the management and conservation of water resources. However this amount is currently modest. ANA has expressed the possibility to review and adjust these amounts, part of which might be allocated for direct conservation activities of water resources in the project sites.</p> <p>Hence, ensuring sustainable flow of resources to the PES Fund is seem as an output of the project to be achieve during PES design, negotiation and implementation process. This process is thought to enable the contributions from private sector. This output and process is proposed based on current evidences and willingness of diverse actors to support the PES Fund in these two watersheds.</p>
<p>How will the project ensure that an appropriate, fair compensation framework is established?</p>	<p>Project design does not include individual compensation for individual farmers located in the upper areas of the basins. PES in these watersheds will be a mechanism for fair and equitable distribution of benefits provided by hydrological services.</p>



	<p>Currently (without PES Fund), most of hydrological services-related benefits are captured by water user actors located downstream and practically none of these benefits are shared with upstream actors, who are managing the ecosystems that deliver these hydrological services. Therefore, the PES scheme can be a benefit-sharing mechanism in the watershed that would increase the fairness and equitable distribution of ecosystem's water-related benefits.</p>
<p>How can the financial sustainability of the PES schemes be ensured?</p>	<p>The design of the PES Fund had been thought to ensure the financial sustainability.</p> <p>Initial financial contributions will be deposited in a commercial bank that would invest them in moderate-risk market options. The bank will be selected based on a competitive basis, where the most profitable and convenient proposal in agreement with MINAM. Project design has considered combining. The Trust Funds will combine two modalities: 1) Endowment Fund and 2) Sinking Fund. The Endowment Fund portion would be capitalized with GEF contributions of US\$1M per Trust Fund. Revenues from the Fund would be used to cover recurrent costs associated to PES M&amp;E and biodiversity conservation, in order to guarantee the sustainability of these two fundamental aspects and for which it is more difficult to leverage funding from local ES beneficiaries. This contribution will also be used to leverage additional funding from other ES buyers such as hydropower and mining companies, farmers, urban water users, other industries, philanthropic organizations, other donors and local and regional governments. Funds from other ES buyers would be used to constitute the sinking fund portion –unless the ES buyer prefers its contribution to be allocated to the endowment portion. The sinking fund will be created with the purpose of implementing conservation actions in priority areas for the provision of ES. It is expected that agreements with ES buyers, especially with those who permanently benefit will be in a long-term or even perpetual basis. In this regard the sinking fund may be sustainable over time. This mixed design, -endowment and sinking, of the Trust Funds is expected to allow sustainability to the PES scheme by proving a permanent sustainable financial platform (via the capital for the endowment fund) and recurrent permanent payments via contributions to the sinking fund portion. On the other hand, this design can provide the Fund with the capacity to cover required immediate investment for conservation priorities through the sinking fund that cannot wait until the endowment fund growth is enough to cover it.</p>
<p>How does the project relate to the country's obligations to the CBD, particularly the Aichi Targets?</p>	<p>Project activities contained in the two project components relate to the following Aichi targets:</p> <ul style="list-style-type: none"> <li>• People awareness of the values of biodiversity and the steps they can take to conserve and use it sustainably,</li> <li>• Integration of biodiversity values into national and local development and poverty reduction strategies and planning processes that are being incorporated into national accounting, as appropriate, and reporting systems,</li> <li>• Positive incentives for the conservation and sustainable use of biodiversity are developed and applied;</li> <li>• Reduced rate of loss of all natural habitats, including forests as well</li> </ul>

- as significant reductions of degradation and fragmentation,
- Sustainable management of areas under agriculture, aquaculture and forestry thus ensuring conservation of biodiversity;
  - Maintenance of genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species and development and implementation of strategies for minimizing genetic erosion and safeguarding their genetic diversity (through PROFODEL activities)
  - Contributions of ecosystems that provide essential services, including services related to water that contribute to health, livelihoods and well-being which, are being restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable
  - Improved knowledge, science base and technologies relating to biodiversity, values, functioning, status and trends, and the consequences of its loss, are widely shared and transferred, and applied;
  - Development and adoption by national authorities of policy instruments that are being implemented and are effective, participatory and updates on the national biodiversity strategy and action plan.

In addition and probably one of the most important contributions, the project will make is to conserve ecosystems currently underrepresented in the National system of protected areas contributing in this form to Aichi target 11.18

The representative of **Germany** suggested that during drafting of the final project design consideration be given to the work of other international research centers that have conducted major projects (past, ongoing or incipient) with a focus on (PES especially in terms of their experiences of scaling up payments for watershed services, designing regional compensation systems to safeguard water supplies for downstream agriculture which, could be of interest in setting up the project. In addition, Peru implements various social programs to alleviate poverty which could be analyzed, for instance, the National Forest Conservation Program for Climate Change Mitigation which combines transfer payments to local communities with regard to conservation and poverty alleviation.

CIAT and FAO, who have worked on the evaluation and design of PES schemes in Latin America, have been part of the formulation team for this project. Their knowledge about lessons learnt and needs for scaling up PES schemes were considered in project formulation. Also, it was considered the guidance and opinion of the STAP, to which other international centers with ample experience in this topic were part of (e.g. CIFOR). All these knowledge and recommendations were included accordingly and actually the project document recognizes that in spite of multiple efforts by several organizations to promote these economic mechanisms and even design and fund some PES initiatives in watersheds of Peru, few of them have made substantial progress towards PES implementation and only one is considered operational. Furthermore, there is a need to develop support tools, such as legal norms and guidelines, and create the capacities for negotiation and design of sustainable and feasible PES schemes from the financial, legal and institutional perspectives.

Also the Knowledge Management section recalls on the need to learn about undeveloped topics of PES and that are aligned to what has been reported by the GES STAP and other organizations working on PES. Then, “a number of

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<sup>18</sup> The target 11 indicates that By 2010 at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through systems of protected areas managed effectively and equitably, ecologically representative and well-connected and other measures of effective area-based conservation, and integrated into the landscape and seascape wider.

studies would be prepared to provide insights into the cost-effectiveness of investments on the conservation and sustainable management of High Andean ecosystems; the socioeconomic impacts of Project components on poverty alleviation and equity at the watershed level, the success and failure factors of PES implementation in Peru; the actual potential of scaling out and up of water-related PES schemes in Peru among others.”.

To finalize, during the preparatory phase of the PES scheme (component 2 of the project), it will be considered the results of a review that CIAT is currently conducting regarding the key bottlenecks in the development of 12 emerging PES initiatives in watersheds of Peru.

With respect to the National Forest Conservation Program for Climate Change Mitigation (NFCPCCM), it aims to conserve 54 million hectares of tropical forests to mitigate climate change and contribute to sustainable development. It also has four specific objectives, namely to achieve zero net deforestation by 2020, identify and map areas for forest conservation, promote sustainable production systems, and strengthening capacities for the conservation of the different actors related to it. Although the project area does not include tropical forests, the formulation team give due consideration to this program. As a result of this and of the close collaboration of MINAM for this project, it will be feasible to cross share lessons learned from the implementation of the NFCPCCM and the PES schemes to be implemented by this project in high Andean lands. This may lead to rethink in the future both mechanisms and probably to look for a more explicit complementarity among them, within MINAM.

**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>19</sup>**

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

PPG Grant Approved at PIF:					
Project Preparation Activities Implemented	GEF Amount (\$)				Co-financing (\$)
	Budgeted Amount *	Amount Spent To date	Amount committed	Uncommitted amount *	
1. Preparatory studies and baseline information	37 925	31 090	3 955	2 880	48 750
2. Preparation of Project Strategy and development of indicators for Monitoring and Evaluation	26 675	11 244	12 071	3 361	32 750
3. Assessment of institutional capacities, implementation modalities and costs	20 279	6 145	10 338	3 796	29 966
4. Consultations and validation of project design by key stakeholders	20 687	7 946	7 091	5 650	18 000
5. Enhancement of project quality and project design management	-	-	-	-	27 894
Contingencies	-	-	-	-	5 000
<b>TOTAL</b>	<b>105 566</b>	<b>56 425</b>	<b>33 454</b>	<b>15 687</b>	<b>162 360</b>

\* Kindly note there is a discrepancy in PPG amount between the Government Endorsement Letter (\$ 100,000) and PPG Request and Approval (\$ 105,566). In light of this, reporting was done in line with the PPG amount requested/approved.

\*\* This is the current PPG balance at the submission. It will be confirmed once all encumbrances are expensed. All uncommitted funds will be returned to the Trustee.

N.B. Given the above two points, if any further commitments are made by IFAD, these will not exceed \$ 100,000 as approved by the Government of Peru.

<sup>19</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

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

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

NA