

Global Environment Facility

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1410

GEF

Facsimile Cover Sheet

DATE: February 17, 1999

No. of Pages: 1

Inc. Cover sheet

TO: Mr. Rafael Asenjo
GEF Executive Coordinator

PHONE:

ORGANIZATION: UNDP- GEF

FAX: 212-906-6998

FROM: Herbert K. Acquay
Program Manager

PHONE: 202-458-5781

FAX: 202-522-3240

CC:

SUBJECT: **PDF-A Request: Conservation and Sustainable Use of Coastal Lomas of Southern Peru**

Message:

Dear Mr. Asenjo:

As per your request, we have reviewed the proposal for the above-mentioned PDF-A and have concluded that its objective of developing a project for "in situ recuperation, restoration, conservation, and sustainable use of coastal lomas in southern Peru" is consistent with GEF Operation Strategy and Program for O.P. #1.

We, therefore, have no objection to the approval of the PDF-A funding by UNDP to support the implementation of the proposed activities. We recommend, however, that closer attention be paid to the complementarity between this proposed initiative and other GEF activities in Peru.

Yours Sincerely,

Herbert K. Acquay
Program Manager

Log No. 99-5

GEFSEC Project Tracking System

Response Due Date: 03/01/99

Correspondence Description

Addressed to: <u>Mr. Kenneth King</u>	Correspondence Date: 02/22/99
Date Received: 02/23/99	Organization: UNDP
From: Emma Torres	

Assigned To: H. Acquay

Status: Open

Type: Fax
Topic: PDF A: PERU: Conservation and Sustainable Use of the Coastal Lomas of Southern Peru

Action Instructions

- For Bilateral meeting
- For information only. No action needed.
- Please handle/respond on behalf of Mr. Kenneth King and provide a copy.
- Please handle/respond on behalf of Mr. Mohamed El-Ashry and provide a copy.
- Please prepare a draft response and return to Program Coordinator
- Please reply directly and provide a copy.
- Please review and/or technical comments

Special Instructions

Information Copies Sent To:

M. Ramos, K. Kumari, A. Merla, J. Taylor

Projects File Room Location:

Note: A copy/original of the document is being sent directly to your attention.

Please return this page with a copy of the incoming correspondence and the reply/action taken to Program File Manager (GEFSEC Project File Room) before or by due date with the original copy of the correspondence and the reply/action.

FACSIMILE TRANSMISSION



United Nations Development Programme GLOBAL ENVIRONMENT FACILITY (GEF)

To: Mr. Kenneth King
Assistant Chief Executive Officer
GEF Secretariat

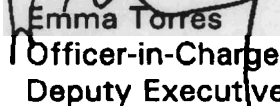
Date: 22 February 1999

Mr. Lars Vidaeus, Chief
Global Environment Div.
World Bank

Mr. Ahmed Djoghla
GEF Executive Coordinator
UNEP, Nairobi, Kenya

Fax: 202-522-3240
202-522-3256
2542-520-825

Pages: (11 including this sheet)

From: 
Emma Torres
Officer-in-Charge and
Deputy Executive Coordinator

Subject: PDF A Funding - Conservation and Sustainable Use of the Coastal Lomas of Southern Peru

Please find attached for your review a PDF Block A request for funding entitled:
"Conservation and Sustainable Use of the Coastal Lomas of Southern Peru"

We would appreciate receiving your comments no later than c.o.b. Monday 1
March 1999.

Thank you.

PM

BLOCK A PDF

N:GEF\MEDIUM\PERU\LOMAS\PDFA

1. Project name: Conservation and Sustainable Use of the Coastal <i>Lomas</i> of Southern Peru.	2. GEF Implementing Agency: United Nations Development Programme (UNDP)
3. Country or countries in which the project is being implemented: Peru	4. Country eligibility: Peru approved and ratified the Convention on Biological Diversity through Law No. 21681 on April 30, 1993
5. GEF focal area(s), and/or cross-cutting issues: Biodiversity	6. Operational program/Short-term measure: Arid and semi-arid ecosystems
7. Project linkage to national priorities, action plans, and programs: The proposed project is among the priorities approved by the National Environmental Council (CONAM) through the National Environmental Action Plan.	
8. GEF national operational focal point and date of country endorsement: CONAM 7 April 1998	
9. Project rationale and objectives: Project Rationale The coastal <i>lomas</i> formations (small hills or slopes) of Peru represent a unique vegetation formation in the biosphere as they obtain the water necessary for their metabolism from the fog. Located on the slopes of the mountain ranges of the southern coast of Peru, they are considered true "vegetation islands" and "fog oases" in the middle of the Chilean - Peruvian coastal desert, one of the most arid deserts in the world. Native vegetation of the desert consists of more than 1,200 species, many of which are endemic and largely restricted to the <i>lomas</i> . The floristic communities of the <i>lomas</i> formations essentially function as terrestrial islands separated by hyperarid habitat where virtually no plants exist. The <i>lomas</i> are highly influenced by the seasons: during the summer, the herbaceous layer is dry and the woody plants are reduced to minimum foliage. From the onset of winter to the beginning of the spring (May to October), the fog increases and the solar radiation decreases. The atmospheric moisture is higher increasing water availability and resulting in a dramatic change in the landscape with the regrowth of vegetation. The <i>lomas</i> change from dry and arid to green	

and colorful from the flowers of the herbaceous layer.

This vegetation type used to cover more than 600,000 ha of the Peruvian coast (Tossi, 1960) and includes numerous endemic species (*Myrcianthes ferreyrac*, *Hymenocallis amancaes*, *Begonia octopetala* and the genus of *Nolana* and *Weberbauerella* among the principal genera). It also shelters a large variety of species related to farming crops, mainly the Solanaceae (*Solanum* and *Lycopersicum* genera), but also Curcubitaceae and Passifloraceae. Moreover, the *lomas* are home to a large quantity of species with a high forage value, others with medicinal use and others with great economic potential (*Cae salpinea spinosa*, *Loasa urens*, etc.).

The *lomas* with the highest levels of biological diversity and covering the greatest area are located in the south of Peru. The most important of these are located in the locality of Atiquipa (Caravelí - Arequipa) and are located on land owned by the Comunidad Campesina de Atiquipa (Farmer Community of Atiquipa). This community satisfies its subsistence needs from agriculture (crop production and livestock) and harvests fuelwood for energy. In addition the community collects tare seeds, medicinal plants, and other natural products from the area.

The *lomas* have been under an accelerated process of land degradation and loss of biological diversity since the pre-Hispanic period by transhumant shepherds who exploit the forage, water and fuelwood resources of the area. This is particularly acute during the dry season of the southern Andes when pasture resources are scarce and demand high. Moreover, cattle ranching is virtually uncontrolled, resulting in overgrazing. A gradual shift from populations of native grasses to exotic grasses has been noted due in large part to the movement of cattle from the high Andes to the *lomas*. The unsustainable use of natural forests, mainly of the tare and arrayan trees, has caused serious soil degradation in the *lomas* and has contributed to the loss of fauna. The process of desertification has advanced to a degree that the unique *lomas* ecosystem can not recover by itself. Destruction of these fragile ecosystems is also generating a gradual impoverishment of the inhabitants leading to outmigration to neighboring areas.

The project—to be fully developed with the Block A resources requested herein—proposes to implement a program to recuperate, restore, manage and sustainably use the natural resources of the *lomas* of Southern Peru, particularly those of Atiquipa, an area of close to 300,000 hectares. Both research/experimental and demonstration activities shall be conducted at a Pilot Demonstration Center (PDC) of approximately 500 hectares in the *lomas* of Atiquipa. The Program to be implemented at the PDC will consist of

three programmatic focal areas and activities as listed below.

- **Protection and Conservation.**

- 1) Preservation and protection of the *lomas* vegetation;
- 2) Protection of archeological sites;
- 3) Establishment of plant nurseries;
- 4) Establishment of experimental areas oriented to the regeneration and recuperation of the ecosystem;
- 5) Establishment of a Program to combat desertification.

- **Sustainable Use.**

- 1) Zones which exclude grazing;
- 2) Enclosures with sustainable management;
- 3) Productive reforestation;
- 4) Fog trapping systems;
- 5) Sustainable agriculture;
- 6) Ecotourism.

- **Education and Training.**

- 1) Environmental education activities;
- 2) Training for the sustainable management of coastal *lomas*.

The project's strategy is to disseminate research findings and lessons learned in the three programmatic focal areas to other regions and communities in the Southern *Lomas* based on the project's activities in Atiquipa. Through the *in-situ* restoration, recuperation and project sustainable use and conservation of the biodiversity of the *lomas* of Atiquipa, global environmental benefits will be realized, as these arid and semi-arid ecosystems are unique in the American continent. Sustainable use of the *lomas* will conserve *in-situ* the threatened endemic species of the *lomas* of southern Peru: *Myrcianthes ferreyrac*, *Hymenocallis amancaes*, *Begonia octapeia* and the *Nolana* and *Weberbaurella* genera. In addition, key agrobiodiversity will be conserved: the *Solanum* and *Lycopersicum* genera, and others that are reserves of germplasm for the improvement of the potato, tomato, and the calabash.

Some preliminary project activities have already been executed:

- The signing of a Cooperation Agreement between CONAMA, IRECA-UNSA, REDA and ILDER all of whom will be involved in the project;
- The evaluation of water from fog in 3 sites of the *lomas* of Atiquipa;
- The establishment of a no-grazing area;
- The study of vegetation dynamics;
- Preliminary inventory of the flora and fauna.

These activities were executed from 1996 to the present time and IRECA-UNSA

has been responsible for their implementation, at an estimated cost of US \$110,000. Cofinancing for the Medium Size Project Brief is being negotiated with local public institutions as well as with bilateral cooperation agencies.

Project Objectives

A. General:

In situ recuperation, restoration, conservation and sustainable use of the coastal *lomas* in southern Peru.

B. Specific:

B.1 Prepare and implement a plan for sustainable use and management of the coastal *lomas* in southern Peru.

B.2 Develop capacities for the conservation of biological diversity by local native communities using traditional land-use practices, duly systematized and optimized.

B.3 Establish a system for data collection and information analysis on the key biological, ecological and socioeconomic issues affecting the coastal *lomas*.

10. Expected outcomes:

Specific Objective B.1:

- Conservation, sustainable use and management of the coastal *lomas* in southern Peru.
- Removal and/or mitigation of the factors causing the loss of biological diversity of the coastal *lomas*.
- Integration with the main productive and social sectors for the protection of the biological diversity of the coastal *lomas*.

Specific Objective B.2:

- Strengthening and coordination of national regional and local institutions for the conservation and protection of biological diversity of the coastal *lomas*.

Specific Objective B.3:

- Increased knowledge and information on the ecosystems of the coastal *lomas*.

11. Planned activities to achieve outcomes:

Specific Objective B.1

- Conduct an environmental and socioeconomic diagnosis of the coastal *lomas* in the south of Peru, especially in Atiquipa.
- Update and complete the inventory of flora and fauna.

- Monitor introduced species that cause ecological problems in the *lomas*.
- Establish an experimental Pilot Demonstration Center in the *lomas* of Atiquipa.
- Identify appropriate locations for the establishment of protected areas.
- Install a nursery of native species of the coastal *lomas*.
- Establish no-grazing areas.
- Establish pasture rotation system for pasture and division of lands for pasture.
- Reforest appropriate areas with native species.
- Build a system to collect fog in the *lomas* of Mejia, Camana and Atiquipa.
- Install pipelines to transport water from the fog-collectors to the storage pond in the *lomas* of Atiquipa.
- Develop and optimize the economic cycles of products obtained in the *lomas*.
- Establish businesses for tare seeds, honey, pollen, and other products derived from apiculture and medicinal plants.
- Identify and develop appropriate areas for ecotourism activities.

Specific Objective B.2

- Reclaim and enhance traditional land and resource management practices in the coastal *lomas*.
- Train local and native communities and relevant institutions in conservation, management and sustainable use of biological diversity of the coastal *lomas*.
- Introduce an environmental educational program in the Comunidad Campesina de Atiquipa.

Specific Objective B.3

- Create a data analysis system and center for ecological, biological and socioeconomic information on the southern coastal *lomas*.

12. Stakeholders involved in project:

- **Instituto Regional de Ciencias Ambientales de la Universidad Nacional de San Agustin de Arequipa (IRECA-UNSA)**

IRECA-UNSA is an entity of the Universidad Nacional de San Agustin de Arequipa (UNSA) with expertise in environmental issues and sustainable development. At present, with the financial support from the European Union and in partnership with four international universities, the institute is executing a research project entitled: Evaluation of Water from Fog in the Lomas de Mejia. The technical is team made up of professionals and technicians with international training and expertise in the management of flora, fauna and natural resources in coastal deserts. In 1998, IRECA-UNSA organized the IV Latin American Congress on Ecology.

- **Red Regional de Agroecología de Arequipa (REDA)**

REDA is a legal entity that includes public and private institutes of the Department of Arequipa. REDA works on environmental and sustainable development issues. REDA is the focal point, in the city of Arequipa, of FORO ECOLOGICO, which serves a forum for national environmental NGOs.

- **Instituto Laboral para el Desarrollo Regional (ILDER)**

ILDER is a non-profit private organization that works on Gender and Environmental Issues in the Department of Arequipa and duly registered with the Public Registration of Companies of Arequipa. It has implemented several programs in environmental education and the promotion of local development. ILDER receives international cooperation and funding for projects related to gender and/or the environment including financial support from HIVOS of Holland, International Center of Human Rights and Democratic Development from Canada, Women's Global Christian Association, Global Fund for Women, Contravairo Fund Peru-Canada, among other cooperation agencies.

- **Comunidad Campesina de Atiquipa**

This organization has been in existence for many years and has approximately 250 members. The representatives and administrative authorities are highly respected and the Community is duly registered. Comunidad Campesina de Atiquipa is the owner of the land where the *lomas* de Atiquipa are located.

These four organizations have signed a Cooperation Agreement for the development of this project and for the execution of other activities in conservation and natural resources management.

13. Activities to be financed by the PDF:

- Carry out an assessment of the globally significant biodiversity of the *lomas* ecosystem of Atiquipa and a thorough analysis of the threats to the *lomas* ecosystem.
- Conduct studies to demonstrate the economic and social viability of the coastal *lomas* of Atiquipa.
- Conduct a workshop in the community of Atiquipa with all stakeholders including the project proponents to discuss project objectives and activities, and to determine priority concerns and expectations. With information from the workshop, prepare an outline of the project brief and the stakeholder

participation plan.

- Write a project brief and draft project detailing the three programmatic focal areas (Protection and Conservation, Sustainable Use, Education and Training) outlined above including the definition and design of the Pilot Demonstration Center. The project brief will be written according to GEF criteria and guidelines. The project brief will: a) clearly detail the principal threats affecting the biodiversity of the *lomas* ecosystem; b) conduct an analysis of the baseline to determine the extent to which national development plans and programmes in the project area are supportive of biodiversity conservation of the *lomas* ecosystem; c) identify existing gaps in the baseline and the corresponding actions needed to effectively mitigate threats and ensure the effective conservation of the biodiversity of the *lomas* ecosystem; d) determine whether required actions are incremental in nature and therefore eligible for GEF financing (i.e. activities or measures which cannot be justified on grounds of domestic benefits alone and which are far more likely to generate global benefits as opposed to national or local ones). The project brief will also contain a monitoring and evaluation strategy.

14. Expected outputs and completion dates:

- An assessment of the globally significant biodiversity of the *lomas* and an analysis of the threats to the *lomas* ecosystem—1 month.
- Economic and social viability studies—6 months.
- Workshops with the members of the community of Atiquipa - 4 months.
- Workshop with other stakeholders - 1 month.
- Workshop with stakeholders of other *lomas* - 2 months.
- A stakeholder participation plan—6 months.
- Medium-size project brief, in GEF format, including an incremental cost analysis and logical framework—7 months.

The PDF A will be used to secure donors to finance the non-GEF component of the medium-size project.

15. Other possible contributors/donors and amounts:

16. Total budget and information on how costs will be met (including the Block A grant):

	Block A Grant
Studies (economic & social viability biodiversity assessment and threats analysis)	\$ 13,500
Community Workshops	2,000

Stakeholder Workshops	5,000
Project Brief Preparation	4,500
Total	\$ 25,000
17. Name: Instituto Regional de Ciencias Ambientales de la Universidad Nacional de San Agustín de Arequipa (IRECA - UNSA)	18. Date of establishment, membership, and leadership: 13 July 1993 Membership: 08 Researchers Leadership: Percy Jimenez
19. Mandate/terms of reference: Objectives: - to conduct research on the environment in southern Peru and develop appropriate solutions to environmental problems. - to educate environmental professionals. - to contribute to the sustainable development of the southern Region of Peru. - to foster regional public awareness about the environment. Functions: - Research, educate, and provide university courses in environmental sciences. - Advisory activities, consultancies, project execution and studies about the environmental situation of the Southern Region of Peru. - Promote sustainable development of southern Peru. - Raise funds to execute projects. - Management of funds collected to execute projects.	20. Sources of revenue: UNSA receives financial support and grants from private and public institutions for the projects.
21. Recent activities/programs, in particular those relevant to the GEF Project:	

"Fog: A new water resource for the sustainable development of the Ecosystem of the Peruvian and Chilean Coastal Desert." Supported by the European Union (STD3 Programme) 1995 - 1998.

IRECA - UNSA is a part of the work group to Combat Desertification and Drought in Peru since 1995.

In October 1998, IRECA-UNSA organized the IV Latin America Ecology Congress in Arequipa - Peru which was a scientific success with the participation of five hundred ecologists from Latin America, Spain, Sweden, Italy, Japan, France and others.

22. Project identification number:

23. Implementing Agency contact person: Lita Paparoni Regional GEF Coordinator

24. Project linkage to Implementing Agency program(s):

2/3



Lima, 07 de Abril de 1998

Carta No. 337-98-CONAM/SE

Doctora
Kim Balduc
Representante residente
PNL/D
Presenta.-

Ref: Proyecto "Recuperación y uso sostenible de los ecosistemas de lomas costeras del sur del Perú"

Tengo el agrado de dirigirme a usted para comunicarle el respaldo del Consejo Nacional del Ambiente (CONAM) al proyecto de la referencia, en su condición de punto focal operacional del GEF en el Perú.

Asimismo, expresamos nuestro acuerdo que el Instituto Regional de Ciencias ambientales de la Universidad San Agustín de Arequipa (IRECA) sea receptora de los fondos del Proyecto, en su condición de entidad ejecutora.

Atentamente,

Paul Remy
Secretario Ejecutivo

UNDP	SECRETARÍA
REGISTRO	15
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