

**UNITED NATIONS DEVELOPMENT PROGRAMME  
GLOBAL ENVIRONMENT FACILITY***Proposal for Review*

**Country:** Peru

**Project Title:** Enabling Peru to Prepare its First National Communication  
in Response to its Commitments to the UNFCCC

**GEF Focal Area:** Climate Change

**Country Eligibility:**  Eligible under financial mechanism of the UNFCCC  
 Eligible under paragraph 9 (b) of the Instrument

**Date of Ratification:** 07 June, 1993

**GEF Financing:** US \$ 195,700

**Government Counterpart Financing:** US \$ 30,000.

**GEF Implementing Agency:** UNDP

**Executing Agency:** CONAM

**Local Counterpart Agency:** CONAM

**GEF Operational Focal Point:** CONAM

**FCCC Focal Point:** CONAM

**Project Duration:** 15 months

## 1. BACKGROUND & PROJECT CONTEXT

### 1.1 GEOGRAPHY

1. Peru covers 1,285,215 square kilometres and is the third largest country in South America (more than five times the size of the UK). It is bounded on the north by Ecuador and Colombia, to the east by Brazil and Bolivia, to the south by Chile and to the west by the Pacific Ocean. It lies entirely within the tropics with its northernmost point only a few kilometres below the equator and its southernmost point just over 18° south.

2. Geographically, Peru is divided into three main regions, 1) a narrow coastal belt separated from 2) the Amazon rain forest by 3) a wide mountain range.

3. The narrow coastal strip is mainly desert merging at the southern end with the Atacama Desert, one of the driest places on earth. The extreme northern end, near Ecuador, contains an extensive mangrove swamp. This coastal desert contains Peru's major cities and one of its best highways, the Pan-American, which runs the entire length of Peru and is paved most of the way. The desert is irrigated in places from rivers running down the western slopes of the Andes in valleys which contain important agricultural centres.

4. The Andes, the second largest mountain chain in the world after the Himalayas, jut rapidly up from the coast. Heights of 6,000 metres are reached just 100 km inland. It is a young range still in the process of being uplifted as the Nazca plate (under the Pacific) slides under the South American plate.

5. Huascarán, at 6787 metres above sea level is Peru's highest mountain and the highest mountain anywhere in the tropical world. Most of Peru's Andes lie between 3000 and 4000 metres above sea level. It is a rugged and difficult landscape with jagged ranges separated by extremely deep and vertiginous canyons. Many of the precipitous glacier-clad mountains have peaks of more than 6000 metres and the high valleys between host rarely seen species.

6. The eastern slopes of the Andes are less precipitous, though no less rugged. They receive much more rainfall than the dry western slopes and are clothed in a mantle of green cloud forest. As elevation is lost, the cloud forest becomes rain forest of the Amazon Basin. The dense tropical forest houses a degree of biodiversity second to none the world over. This region has been penetrated by few roads, and those which do exist go in for a short distance only.

### 1.2 CLIMATE

7. Peru's climate can be grossly divided into two seasons --wet and dry-- though the weather varies greatly depending on the geographical region. The desert coast is arid; during summer (January to March) the sky is often clear and the weather tends to be hot and sticky. During the rest of the year the grey coastal mist known as *garua* moves in and the sun is rarely seen.

8. Moving inland, one rises above the coastal mist. Nazca, for example, is about 60 km inland and 600 metres above sea level --high enough to avoid the *garua*-- so it is hot and sunny for most of the year. Generally the western slope of the Andes have weather like that of Nazca.

9. Within the Andes proper, wet and dry seasons are prominent. The dry season covers the period from May to September. Although at altitude it can be cold at night, with occasional freezing temperatures in places like Cuzco (3326 metres), the dry weather provides sunshine during the day. Because of this, the dry season in the Andes is known as summer and the warmer wet season is called winter. The wet season in the mountains is from October to May with more intense rains arriving only by late January.

10. Precipitation increases going east down the slopes of the Andes. The driest months are the same as in the highlands, but the wet season tends to be more pronounced. The wettest months are from January until April, during which time roads on the eastern slope of the Andes are often closed due to landslides or flooding. A similar weather pattern exists in the Amazon lowlands.

11. Given its varied geography and the abrupt contrasts found in its territory, the country is endowed with an extraordinary degree of biodiversity. Peru is located in a highly seismic area, and flooding and severe droughts occur periodically causing damage to towns and infrastructure and even loss of life.

### 1.3 POPULATION

12. Perú's population is over 24 million, almost half of which is concentrated in the narrow coastal desert. Lima alone has a population of almost six million while the second and third cities, Arequipa and Trujillo, also in the coastal region, have populations of about 900,000 each. Almost half of the population lives under conditions of some poverty, with 20% of the population classified as extremely poor.

13. About half of the population lives in the highlands, though there are few large cities there. Because of the very poor standard of living and disruption caused by armed groups, many peasants have migrated to the coast, though will little improvement in their socio-economic conditions. Some peasants have emigrated eastwards to the forest where they undertake subsistence agriculture, causing deforestation.

14. More than 60% of Perú lies in the Amazon Basin east of the Andes. This region is the homeland for diverse local communities, many of which have had little, if any contact with the outside world; as yet only 5% of the population lives there. They have managed to preserve their cultural inheritance.

### 1.4 GHG-RELATED ISSUES IN PERU

#### GHG emitting sectors

15. According to the findings of the 1990 GHG Inventory, sponsored by the US Department of Energy under the Country Studies Programme, the most important GHG emitting sector is the non-energy one. It accounts for some 81% of the total GHG emissions of the country (considering CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> only); the summary table can be found in Annex V. The majority of this 81% is caused by deforestation and changes in land use. This is particularly important since the backbone of the economy of the country is, broadly speaking, lies in the industrial sector, rather than in agriculture. The contribution of mining, industry and fisheries is less than 1% of total CO<sub>2</sub> emission. Updating of this inventory to year 1994 is underway.

Deforestation

16. Deforestation can be seen as a result of two factors: first, the conversion of forest lands to agricultural use, usually by means of "slash and burn" agriculture, and second, the failure to implement reforestation programmes in areas where timber has been exploited. Roughly 261,000 hectares of forests are lost to deforestation every year.

17. The forecast for the year 2000 predicts a total deforested area of 9,6 million hectares. These impoverished, abandoned lands could be reforested using appropriate management of secondary forests. Migratory agriculture is difficult to deal with inasmuch as it is carried out by subsistence farmers.

Fuel prices

18. Fuel prices in Peru are not subsidised. The state monopoly has been split up and is being privatised. The oil refineries have already been sold. Prices are driven by market forces. Prices paid by the consumer are subjected three charges: road tax (8%), VAT (18%) and sales margin. All three factors are added to the refinery price, with the result then charged with the general sales tax (18%). Refinery prices in Peru are comparable to those in Chile and Argentina, due to the similarities of the economic policies followed. Prices elsewhere in South America are based on different considerations.

Energy sources

19. Electricity grids in the country are primarily supplied by hydroelectric power plants, with only a fraction of the electrical output generated by burning fossil fuels. There are no coal-fired power plants in Peru; coal is primarily used by the small (in international terms) steel mills, for cement production and in metallurgical processes.

Poverty and electrification

20. The government is actively pursuing an electrification programme, focusing on small oil-fired plants without neglecting renewable energy sources. Pilot wind and solar power energy schemes have been implemented, and geothermal fields have been evaluated in the southern part of the country. However, no comprehensive national strategy for renewable energy has been devised yet. The aim is to provide incentives for investors to venture into new businesses and empower local communities to be more proactive.

**1.5. OTHER ONGOING OR FINALISED PROJECTS**

21. With the support of the US Country Studies programme, the GHG inventory for the year 1990 was carried out, mitigation options for the energy and non-energy sectors were drafted, and vulnerability and adaptation studies for the coastal areas were prepared. A preliminary review of this work threw light upon a number of shortcomings; moreover, the vulnerability study requires additional substantive work. For instance, the initial study did not examine the potential impact on the agriculture and fisheries sectors. Unfortunately, the highlands and the Amazon area were not covered at all.

22. Although the US Country Studies Programme contained a component on mitigation analysis and on the effect of sea level change in the coming century, this work is not sufficient to provide a basis for decision making. The independent consultations with the US Country Study Program Team endorsed that the vulnerability assessment was rather limited in scope and focused only on the coastal zone and sea level rise. Regarding the mitigation analysis, it was mainly a technoeconomic study focusing on the energy sector without considering the legislative and regulatory framework, social aspect and so on. There is also a lack of awareness in the country of the significance of climate change, whether at global, regional or local levels. The planning process needs therefore to ensure not only that the base data for rational decision making is made available but that decision makers appreciate its significance. Arrangements for the oversight of the studies will ensure that this dimension is taken into account. For a more detailed discussion on the shortcomings of the US Country Study see Annex V.

23. With the support of the Danish Government (Riso National Laboratory/UNEP Collaborating Centre on Energy and the Environment), work is already underway for updating the GHG inventory for the year 1994, using the revised 1996 IPCC guidelines.

24. Peru is also participating in the CC:TRAIN programme. Funds from this source will cover the preparation of the national implementation strategy and limited public awareness building via a workshop on the UNFCCC. The organisation of policy dialogues will be undertaken and funded by CONAM.

## 2. PROJECT OBJECTIVES AND DESCRIPTION

25. The immediate objective of the project is to facilitate the preparation of the first national communication of Perú to the Conference of the Parties (CoP) in accordance with Article 12 of the UNFCCC and following the guidelines adopted by the CoP for the preparation of initial communications by Parties not included in Annex I to the Convention.

26. In addition to meeting the communication obligations, the project can be seen as an essential exercise to enhance general awareness and knowledge of climate change-related issues in Perú, thus enabling Perú to take those issues into account for overall planning and strategy formulation, but also to enable Perú to play a role in international scientific forums and negotiation processes related to climate change. Part of this task is to facilitate dialogue, information exchange and co-operation among all relevant players including the government, non-governmental, academic, private and "grassroots" sectors. The intention is that following the completion of the studies and their evaluation by the National Commission on Climate Change a consultation document will be prepared and distributed widely within the country in order to stimulate and focus debate. The National Commission will present policy recommendations to Government in the light of that debate. It is important that consultation be based on full understanding of the issues and their implications both nationally and globally.

### Project Description

27. During project preparation the following components have been identified to respond to the objectives of the project and to implement the project successfully:

27<sup>a</sup>. Organize the work by: i) identifying and hiring a competent project manager; ii) preparing a detailed work plan for the project; and iii) organizing a project initiation workshop with

participants from all relevant sectors to present the objectives of the project, to clarify links to other relevant ongoing national and international activities, and to clarify the institutional and other practical arrangements to facilitate successful implementation of the project.

27b. Strengthen links to both national and international sources of information, and eventually establish an information center/network with adequate equipment and personnel to facilitate effective exchange of information between the participating institutions at the national level, as well as to assist them in gaining internationally available information on climate change related issues (e.g. from the USCSP and other bilateral programmes, UNEP, IPCC, CC:TRAIN, international research institutes, ongoing enabling activities in other countries etc.) The potential to use the Internet/World

Wide Web has been evaluated and, to the extent feasible, it will be used to save travel costs and enhance the geographical coverage of available information. In that context, the project will cooperate, as appropriate, with the UNDP's SDNP (Sustainable Development Network Programme) and UNFCCC Secretariat's CC:INFO/Web initiatives.

It is foreseen that the network will continue to operate also after the project, permitting interested parties in Peru to learn about other national or international activities, and allowing interested individuals and institutions outside Peru to get information regarding ongoing, planned or finalized climate change related activities in Peru.

27c. Organize and undertake an analysis of potential options to abate the increase in GHG emissions and to enhance removals by sinks.

27d. Study the potential impacts of climate change on the following sectors: agriculture, forestry, coastal resources, water resources, natural ecosystems and health impacts.

27e. By building on the results of the analysis of potential impacts of climate change in the country, organize and undertake an analysis of potential options to adapt to climate change with respect to the specific geographical and climatological characteristics of Peru.

27f. Based on the results above and those of other ongoing projects, compile and prepare the additional information that the country wants to present in its national communication including, inter alia: a) financial and technological needs and constraints associated with the implementation of the Convention under articles 4 and 12 b) projects for financing and c) material relevant for calculation of global emission trends.

27g. Using the outputs of this project as well as results of other ongoing projects, prepare, translate (as appropriate) and publish the first national communication of Peru following the guidelines adopted by the COP.

### 3. INSTITUTIONAL FRAMEWORK AND PROJECT EXECUTION

28. The highest national environmental authority in Peru is CONAM (an acronym for the National Council for the Environment). A CONAM officer chairs the National Climate Change Committee. Committee membership (see Annex III) reflects a balanced mix of government bodies, academic institutions and NGOs. A Technical Secretariat has been set up with a view to discuss technical matters in more detail.

29. The Executing agency of the Project will be the National Council for the Environment. The Climate Change Commission will be charged with overseeing and advising project execution. The Project will also collaborate closely with all the other relevant ongoing projects in Perú to enable effective information exchange between the projects and full utilisation of their results.

30. With regard to international collaboration, working links with relevant regional and international expert institutions will be created; among others, the IPCC and UNEP will be consulted when selecting the methodologies for, and implementing the specific activities of the Project. The Project will also make use of the results and lessons learnt from ongoing or finalised international projects, such as the UNEP Country Case Studies on Climate Change Impacts and Adaptation Assessment, US Country Study Programme, CC:TRAIN and the project with the Risø National Laboratory (Denmark).

31. As for regional co-operation, the setting up of links with other countries having similar ongoing or finalised enabling activities will be promoted, areas for collaboration such as regional training or information exchange workshops will be identified and, if perceived as feasible, organised.

#### 4. RATIONALE FOR GEF SUPPORT

32. The project will enable the Government of Peru to determine appropriate responses to climate change in the light of their economic and social implications and their technical feasibility, and to communicate the results of that analysis to the Conference of the Parties. As such it is in accordance with the provisions of Article 12 of the Convention.

33. With these activities the Project is expected to complete all the steps needed to prepare the first National Communication of Peru to the COP.

#### 5. SUSTAINABILITY AND PARTICIPATION

34. The Government of Peru fully supports the objectives of this project and gives a high priority to it. The Government confirms that the output of the project will be the National Communication described above in accordance with the UNFCCC. In financial terms the Government is contributing US\$ 30 000.

35. The project will be under the overall control of the National Commission on Climate Change, which contains a balanced representation from Government, academia, NGOs and the private sector.

#### 6. LESSONS LEARNED

36. The importance of involvement and co-operation of all the relevant stakeholders including key government ministries, NGOs, academic institutions and the private sector has been noted and duly reflected in the proposal. The Project recognises the importance of exchange of information and experience at the national level, as well as regional and internationally.

37. In implementing the different activities, the Project will follow internationally adopted guidelines and use existing methodologies and tools whenever available. Technical assistance will be provided by local and regional experts whenever possible.

## 7. MONITORING AND EVALUATION

38. After the detailed work plan has been prepared, an external review will be undertaken by an expert with experience in these types of projects. The purpose of the review is to identify in the early stage of the project eventual gaps, overlaps and other risks to successful implementation, as well as to identify potential partners and sources of information which the project could benefit from.

39. The executing agency together with the Project Steering Committee will be responsible for monitoring the project on a continuous basis. In order to do this, the project manager, with the help of the leaders of the research teams, will prepare regular reports on the progress of the project and the different sub-tasks under it.

40. For the remaining part, the project will rely on standard UNDP monitoring and evaluation practices including a mid-term evaluation and a tripartite review to be held within the first 12 months of the start of the full implementation of the project.



## ANNEX I

**COVERAGE OF THE ACTIVITIES IN PERU TO PREPARE  
THE INITIAL NATIONAL COMMUNICATION**

Information to be included into the national communication	Enabling activity to produce the information needed	Type of Activity <sup>1</sup>		
		Planning <sup>2</sup> and execution	Capacity Building	
			Institutional	Human
<b>1. National circumstances</b>	Compilation of the information from existing sources	CONAM	n/a	n/a
<b>2. Greenhouse gas inventory (incl. CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) for:</b> - all energy sources - industrial processes - agricultural processes - land use change and forestry - other sources	Data gathering and inventory of GHG emissions from: - all energy sources - industrial processes - agricultural processes - land use change and forestry - other sources	US, Riso	US, Riso	US/Riso
<b>3. General description of steps taken or envisaged to implement the Convention including, as appropriate:</b> (a) programs related to sustainable development, research, public awareness, etc.; (b) policy options for monitoring systems and response strategies for impacts; (c) policy frameworks for implementing adaptation measures and response strategies; (d) building capacity to integrate climate change concerns into planning; (e) programs to address climate change and its adverse impacts, including the abatement of increase in GHG emissions and enhancement of sinks	An assessment of potential impacts of climate change in the country	X(US) <sup>3</sup>	X	X(US)
	An analysis of potential options to adapt to the impacts of climate change.	X(US)	X	X(US)
	An analysis of potential options to abate the increase in GHG emissions and enhance the sinks.	X(US)	X	X(US)
	Formulation of programs and policy frameworks for implementing the identified response measures.	CCT, CONAM	CCT, CONAM	CCT, CONAM
<b>4. Other information including, as appropriate:</b> a) Financial and technological needs and constraints associated with the implementation of the Convention under articles 4 and 12. b) projects for financing c) material relevant for calculation of global emission trends	Based on the results of the studies compilation and preparation of the additional information that the country wants to present in its national communication	X	X	X
<b>5. Compilation and production of the initial national communication</b>	Preparation, translation (as appropriate), and publication of the national communication (incl. the preparation of an exec. summary)	X	n/a	n/a

<sup>1</sup> X activities covered by the proposed project  
X(NN) activities covered by the proposed project complementing the activities undertaken by "NN"  
NN activities covered by "NN" (indicate the name of the project)  
The following abbreviations are used: US = US Country Study, CCT = CC:TRAIN, Riso = UNEP/Riso, CONAM = National Council for the Environment

<sup>2</sup> including data gathering and research related to the preparation of the national communication

<sup>3</sup> US Country Study studied some effects of the sea level rise on the coastal zone and the coast related to the replacement of some

## ANNEX II

**BUDGET FOR EXPEDITED PROCESSING OF THE ENABLING ACTIVITY PROPOSAL  
FOR PREPARING THE INITIAL NATIONAL COMMUNICATION OF PERU**

Information to be included into the national communication	Enabling activity to produce the information needed	Type of Activity			Total Costs in US \$
		Planning and execution	Capacity Building		
			Inst.	Training	
<b>1. National circumstances</b>	Compilation of the information from existing sources	-	-	-	-
<b>2. Greenhouse gas inventory</b>	Data gathering and an inventory of GHG emissions				
<b>3. General description of steps</b> (a) programs related to sustainable development, research, public awareness, etc.; (b) policy options for monitoring systems and response strategies for impacts; (c) policy frameworks for implementing adaptation measures and response strategies; (d) building capacity to integrate climate change concerns into planning; (e) programs to address climate change and its adverse impacts, including the abatement of increase in GHG emissions and enhancement of sinks	An assessment of potential impacts of climate change in the country	20,000	10,000	15,000	45,000
	An analysis of potential options to adapt to the impacts of climate change	15,000	5,000	10,000	30,000
	An analysis of potential options to abate the increase in GHG emissions and enhance sinks.	11,000	4,000	5,000	20,000
	Formulation of programs and policy frameworks for implementing the identified response measures.				
<b>4. Other information:</b> a) Financial and technological needs and constraints associated with the implementation of the Convention under art. 4 and 12 b) projects for financing c) material relevant for calculation of global emission trends	Based on the results of the studies, compilation and preparation of the additional information that the country wants to present in its national communication	10,000	n/a	n/a	10,000
<b>5. Compilation and production of national communication</b>	Preparation, translation (as appropriate), and publication of the national communication.	15,000	n/a	n/a	15,000
<b>Project management</b>		30,000	15,000	15,000	60,000
<b>Monitoring/Evaluation</b>		10,000	n/a	n/a	10,000
<b>Subtotal</b>		<b>111,000</b>	<b>34,000</b>	<b>45,000</b>	<b>190,000</b>
<b>Project support services (3%)</b>					5,700
<b>GRAND TOTAL</b>					<b>195,700</b>
<b>Percentage of total budget</b>		<b>58.4%</b>	<b>17.9%</b>	<b>23.7%</b>	<b>100%</b>

**ANNEX III****MEMBERSHIP OF THE NATIONAL CLIMATE CHANGE COMMISSION****PERU**

The following institutions are members of the National Climate Change Commission :

- National Council for the Environment (CONAM, chairman)
- Ministry of Foreign Affairs
- Ministry of Industry, Tourism, Integration and International Negotiations
- National Meteorological and Hydrological Agency (SENAHMI)
- Lima Chamber of Commerce
- National Industry Chamber (SNI)
- Peruvian Environmental Network (NGO)

The following institutions are also invited to attend:

- Natural Resources Institute (INRENA)
- Nuclear Energy Agency (IPEN)
- Geophysical Survey (IGP)
- Ocean Research Institute (IMARPE)
- Admiralty
- Ministry of Defence
- Ministry of Transport, Communications, Housing and Construction
- Ministry of Fisheries
- Ministry of Energy and Mines
- Confederation of Business Associations (CONFIEP)
- National Forestry Chamber (NGO)
- Environment and Energy Conservation Centre (CENERGIA)
- Pro Nature (NGO)
- Environmental Law Society (SPDA, NGO)
- National University of Engineering
- Pontifical Catholic University
- National Agricultural University

## ANNEX IV

GHG EMISSIONS FOR THE YEAR 1990  
[CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>; figures in Gg]

SECTORS	GHG emission		
	CO <sub>2</sub> *	N <sub>2</sub> O **	CH <sub>4</sub>
<b>ENERGY</b>			
Production, transmission and transport	...	...	22.46
Coal	...	...	1.95
Oil and natural gas	...	...	20.51
CONVERSION	4,299.95	0.04	71.10
Own consumption	1,523.98	...	...
Processes ***	221.90	...	69.91
Power generation	2,554.07	0.04	1.19
End users	16,299.28	0.65	86.98
Residential/commercial	2,658.71	0.47	73.01
Public	855.26	...	...
Transport	7,231.56	...	...
Agribusiness	283.15	0.10	3.23
Fisheries	655.32	...	...
Industry	2,373.26	0.08	10.74
Metallic mining	1,242.02	...	...
Energy Sector Emission	19,599.23	0.69	180.91
<b>NON ENERGY</b>			
Industrial processes	1089.22	...	...
Cement	1089.22	...	...
Agriculture	...	3.15	680.92
Enteric fermentation	...	...	366.45
Animal manure	...	...	16.29
Rice crops	...	...	129.80
Use of fertilizers	...	1.01	...
Burning of agriculture wastes	...	0.12	4.81
Burning of savannahs	...	2.02	163.57
Change of land use	83,132.41	3.03	440.78
Forest cut down	130,112.69	3.03	440.78
Conversion of pastures to cultivated land	3,62.24	...	...
Abandonment of cultivated lands	-49,714.87	...	...
Forest management	-327.81	...	...
Wastes	...	...	...
Landfills	...	...	130.26
Waste dumps	...	...	28.93
Domestic effluents	...	...	70.12
Industrial effluents	...	...	4.43
Non-energy Sector Emission	84,221.63	6.18	1,251.96
<b>TOTAL EMISSION</b>	<b>103,820.86</b>	<b>6.87</b>	<b>1,432.50</b>

- \* CO<sub>2</sub> emission in the energy sector does not include emissions due to biomass consumption
- \*\* Emissions due to biomass consumption in the energy sector
- \*\*\* Includes oil and gas refineries, coal and coke plants as well as blast furnaces

## ANNEX V

### SHORTCOMINGS OF THE US COUNTRY STUDY

The Government of Peru greatly appreciates the support of the US Country Study Programme, and its contribution has been extremely valuable and has helped to tackle complex and difficult issues like those related to climate change. What follows is a first assessment of the studies carried out to date. There were three separate but related studies: the inventory, the mitigation study and the evaluation of coastal vulnerability. All of them will be considered in turn.

#### **Inventory**

In accordance with the then prevailing guidelines, the inventory took 1990 as its baseline. All in all, the study appears to be carried out efficiently, within the limits of the available data, though the presentation of the information in the final report does not always allow easy identification of the sources used nor their quality.

Since the study was completed the Conference of the Parties has called for updated inventories to a 1994 baseline. This has attractions for Peru, in that the industrial base of the country was artificially depressed in 1990; deforestation rate figures in the Amazon area need to be revisited using the latest air photographs; and emissions from livestock were prepared using the results of the 1972 survey.

#### **Vulnerability**

The terms of reference confined the study to the evaluation of the effect of changes in sea level on the coastal zone. While this provides some information for planning purposes, not least through the recognition that relatively small land areas will be affected, the issues are in practice rather more complex. The study is therefore not sufficient to enable us a thorough assessment of the implications of climate change in this area. The main factors that need to be studied here seem to be:

- the effect of climate and temperature change on water supplies, particularly from rainfall in the highlands, and the subsequent effect on agriculture and industry (83% of the country's GDP is generated in this zone)
- the effect of changes in sea temperatures on fisheries and guano (fisheries are Peru's second largest industry)
- the implications of a change in the ENSO pattern, and in the extreme case, of a reversal of the effect

We have concluded that what is needed is a more wide-ranging study of the implications of climate change as a whole --changes in the amount and distribution of rainfall, temperature changes and the occurrence of extreme events-- for the economy, human health and safety and biodiversity, and covering not just the coastal zone but also the highlands, the cloud forest and the rain forest, given these forests' importance for biodiversity and as a carbon sink. This will then enable Peru to assess the adaptive measures that will be required.

**Mitigation**

The mitigation studies carried out under the USCSP are not suitable for decisionmaking. Unfortunately the consultants had no experience in economic and social analysis in these areas. As a result Peru does not yet have a reliable assessment of the policy change options the Government needs to consider, let alone an evaluation of the main elements to be taken into consideration. Peru needs therefore to revisit this whole area, looking in particular at migratory agriculture and deforestation, energy, transport and industrial policy with consultants who have experience in these areas. The existing analysis is not sufficiently robust to take forward the policy debate, particularly when the attention of Government is focused on the twin issues of economic growth and eradication of poverty.



UNDP - PERU				
REGISTRY N° 1375				
DEADLINE: 23 APR. 1997				
STATUS	INFO	ACTION	TAKEN ON	INITIALS
(CTT)		✓		
San Borja, 9 de abril de 1997				
COMMENTS:				

Carta N° 270- 97-CONAM/SE

Señor  
**JAKOB SIMONSEN**  
 Representante Permanente  
 Programa de las Naciones Unidas para el Desarrollo  
 Presente.-

De mi especial consideración:

Tengo el agrado de dirigirme a usted a fin de alcanzarle el proyecto para la presentación de la primera comunicación nacional del Perú a la Secretaría de la Convención Marco de las Naciones Unidas sobre Cambio Climático.

El proyecto ha sido elaborado de acuerdo a las directivas operacionales para el financiamiento acelerado de las comunicaciones iniciales de las Partes no incluidas en el Anexo I (países en desarrollo) del Fondo para el Medio Ambiente Mundial elaboradas en febrero de 1997.

Agradeciendo su gentil atención a la presente, me despido de usted.

Muy atentamente,

Paul Remy Oyague  
 Secretario Ejecutivo