

**PERU**

**PROGRAM FOR INSTITUTIONAL STRENGTHENING AND  
ENVIRONMENTAL AND SOCIAL MANAGEMENT SUPPORT FOR THE  
CAMISEA GAS PROJECT**

**(PE-0233)**

**LOAN PROPOSAL**

This document was prepared by the project team consisting of: Eduardo Figueroa (RE3/EN3), Project Team Leader; Leonardo Corral (RE3/EN3); Anne Deruyttere (SDS/IND); Robert Montgomery (PRI); Alfonso Tique (COF/CPE); Juan Carlos Pérez-Segnini (LEG/OPR); and Gisella Barreda (RE3/EN3), who assisted with the document's production. Krystina Bishop (RE3/SO3) and Marcela Bocchetto (PRI) also collaborated.

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## BASIC SOCIOECONOMIC DATA

For basic socioeconomic data, including public debt information, please refer to the following address:

**English:**

<http://www.iadb.org/RES/index.cfm?fuseaction=externalinks.countrydata>

**Spanish:**

<http://www.iadb.org/RES/index.cfm?fuseaction=externalinks.countrydata>

## ABBREVIATIONS

ACPC	Asociación para la Conservación del Patrimonio de Cutivireni [Citivireni Cultural Heritage Preservation Association]
CAF	Corporación Andina de Fomento [Andean Development Corporation]
CEDIA	Centro para el Desarrollo Indígena Amazónico [Center for Amazonian Indigenous Development]
CESI	Committee on Environment and Social Impact
CONAM	Consejo Nacional del Ambiente [National Environment Council]
CONAPA	Comisión Nacional de Pueblos Andinos, Amazónicos y Afroperuanos [National Commission of Andean, Amazonian and Afro-Peruvian Peoples]
COPRI	Comisión de Inversión Privada [Private Investment Commission]
DGAA	Dirección General de Asuntos Ambientales [Environmental Affairs Administration]
DICAPI	Dirección General de Capitanías y Guardacostas [Harbormasters and Coast Guards Administration]
DIGESA	Dirección General de Salud Ambiental [Environmental Health Administration]
EIA	Environmental impact assessment
EMP	Environmental management plan
ESIB	Environment and social impact brief
EU	Executing unit
FODASC	Desarrollo Ambiental y Social de Camisea [Camisea Environmental and Social Development Fund]
FONAM	Fondo Nacional del Ambiente [National Environment Fund]
FONCODES	Fondo de Compensación y Desarrollo Social [National Compensation and Social Development Fund]
GDP	Gross domestic product
GEF	Global Environment Facility
GIS	Geographic information system
GOP	Government of Peru
GTCI	Camisea Inter-institutional Technical Coordination Group
IDB	Inter-American Development Bank
INADE	Instituto Nacional de Desarrollo [National Development Institute]
INRENA	Instituto Nacional de Recursos Naturales [National Natural Resources Institute]

KP	Knight Piésold
LNG	Liquified natural gas
MAPPE	Memorandum of assistance for project preparation and execution
MEM	Ministry of Energy and Mines
MMBls	Millions of barrels
NGO	Nongovernmental organization
O&M	Operation & maintenance
OC	Ordinary Capital
OSINERG	Organismo Supervisor de la Inversión Privada en Energía [Private Energy Investment Oversight Agency]
PAU	Program administration unit
PETT	Special Program for Land Titling
PIC	Public Information Center
PMAC	Programa de Monitoreo Ambiental Comunitario [Community Environmental Monitoring Program]
PNA	Protected natural area
PPF	Project Preparation Facility
PRI	IDB Private Sector
PROFONAMPE	Trust Fund for Conservation of State-Protected Natural Areas [Fondo de Áreas Naturales Protegidas por el Estado]
PROPEF	Project Preparation and Execution Facility
PTI	Poverty targeted investment
SETAI	Secretaría de Asuntos Indígenas de Pueblos Andinos, Amazónicos y Afroperuanos [Bureau of Indigenous Affairs of Andean, Amazonian and Afro-Peruvian Peoples] CONAPA Technical Secretariat.
SIA	Social impact assessment
Tcf	Trillion cubic feet
TGP	Transportadora de Gas del Perú S.A.



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## Peru

### Tentative Lending Program

2002

Project Number	Project Name	IDB US\$ Millions	Status
<u>PE0211</u>	Fiscal Reform Program	300.0	APPROVED
<u>PE0193</u>	Foncodes III	150.0	APPROVED
<u>PE0219</u>	Trade Policy Development Prog.	5.0	
<u>PE0217</u>	Modernization of the State and Decentralization Prog.	28.0	
<u>PE0233</u>	Inst. Environmental and Social Strengthening of the Camisea Project	5.0	
<u>PE0220</u>	Institutional Support of the Congress	7.0	
<b>Total - A : 6 Projects</b>		<b>495.0</b>	
<b>TOTAL 2002 : 6 Projects</b>		<b>495.0</b>	

2003

Project Number	Project Name	IDB US\$ Millions	Status
<u>PE0218</u>	Support to the Housing Sector Program	60.0	
<u>PE0223</u>	Strengthening and Modernization Tax System Administration	8.0	
* <u>PE0216</u>	Grana y Montero ("G&M") Partial Credit Risk Guarantee	15.0	
<u>PE0203</u>	Science and Technology Program	35.0	
<u>PE0187</u>	Urban Transport in Lima	40.0	
* <u>PE0235</u>	Road Network	19.0	
* <u>PE0238</u>	TIM Peru	60.0	
<u>PE0239</u>	Competitiveness Reform Program	300.0	
<u>PE0142</u>	Sanitation Sector Devel. Support Prog.ii	50.0	
<u>PE0240</u>	Democratic Consolidation of Citizen Security	14.0	
<u>PE0236</u>	Support to Departmental Highway Decentralization	100.0	
<u>PE0207</u>	National Statistics System Strengthenin	15.0	
<b>Total - A : 12 Projects</b>		<b>716.0</b>	
* <u>PE0222</u>	Camisea Project	75.0	
<u>PE0243</u>	Disaster Prevention & Risk Management Program - Perú	5.0	
<u>PE0200</u>	Public Investment System	10.0	
<u>PE0209</u>	Global Credit Prog. III	30.0	
<u>PE0234</u>	Support Services to the Rural Sector	32.0	
<u>PE0241</u>	Youth Training Program	50.0	
<b>Total - B : 6 Projects</b>		<b>202.0</b>	
<b>TOTAL - 2003 : 18 Projects</b>		<b>918.0</b>	
<b>Total Private Sector 2002 - 2003</b>		<b>169.0</b>	
<b>Total Regular Program 2002 - 2003</b>		<b>1,244.0</b>	

\* Private Sector Project



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## PERU

### IDB LOANS

APPROVED AS OF SEPTEMBER 30, 2002

	<i>US\$Thousand</i>	<i>Percent</i>
<b>TOTAL APPROVED</b>	<b>5,960,376</b>	
DISBURSED	5,146,231	86.3%
UNDISBURSED BALANCE	814,145	13.7%
CANCELLATIONS	997,802	16.7%
PRINCIPAL COLLECTED	2,085,421	35.0%
<b>APPROVED BY FUND</b>		
ORDINARY CAPITAL	5,321,222	89.3%
FUND FOR SPECIAL OPERATIONS	418,130	7.0%
OTHER FUNDS	221,024	3.7%
<b>OUTSTANDING DEBT BALANCE</b>	<b>3,060,810</b>	
ORDINARY CAPITAL	2,961,871	96.8%
FUND FOR SPECIAL OPERATIONS	98,902	3.2%
OTHER FUNDS	36	
<b>APPROVED BY SECTOR</b>		
AGRICULTURE AND FISHERY	526,954	8.8%
INDUSTRY, TOURISM, SCIENCE TECHNOLOGY	634,324	10.6%
ENERGY	274,606	4.6%
TRANSPORTATION AND COMMUNICATIONS	1,023,537	17.2%
EDUCATION	196,556	3.3%
HEALTH AND SANITATION	309,685	5.2%
ENVIRONMENT	0	0.0%
URBAN DEVELOPMENT	72,372	1.2%
SOCIAL INVESTMENT AND MICROENTERPRISE	642,943	10.8%
REFORM PUBLIC SECTOR MODERNIZATION	1,993,324	33.4%
EXPORT FINANCING	176,756	3.0%
PREINVESTMENT AND OTHER	109,319	

\* Net of cancellations with monetary adjustments and export financing loan collecti



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### STATUS OF LOANS IN EXECUTION AS OF SEPTEMBER 30, 2002

(Amounts in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROJECTS	AMOUNT APPROVED	AMOUNT DISBURSED	% DISBURSED
1996 - 1997	4	298,300	256,951	86.14%
1998 - 1999	5	567,708	200,205	35.27%
2000 - 2001	5	186,800	32,292	7.29%
	2	450,000	200,000	44.44%
<b>TOTAL</b>	<b>16</b>	<b>\$1,502,808</b>	<b>\$689,448</b>	<b>45.88%</b>

\* Net of Cancellations . Excluding export financing loans.

# PERÚ

Programa de Fortalecimiento Institucional y Apoyo a La Gestión Ambiental del Proyecto de Gas de Camisea (PE-0233)



Este mapa, preparado por el Banco Interamericano de Desarrollo, no ha sido autorizado por ningún órgano competente y su inclusión en el documento de préstamo tiene por objeto exclusivo indicar el área de influencia del Proyecto que se propone financiar.

Design Unit: ITS/GSV (10/22/02)

**PROGRAM FOR INSTITUTIONAL STRENGTHENING AND  
ENVIRONMENTAL AND SOCIAL MANAGEMENT SUPPORT FOR THE CAMISEA  
GAS PROJECT**

**(PE-0233)**

**EXECUTIVE SUMMARY**

<b>Borrower:</b>	Government of Peru	
<b>Guarantor:</b>	Government of Peru	
<b>Executing agency:</b>	Ministry of Energy and Mines (MEM)	
<b>Amount and source:</b>	IDB (OC):	US\$5.0 million
	Local:	<u>US\$2.2 million</u>
	Total:	US\$7.2 million
<b>Financial terms and conditions:</b>	Amortization period:	25 years
	Grace period:	3.5 years
	Execution period:	3 years
	Disbursement period:	3.5 years
	Interest rate:	variable, according to Ordinary Capital (OC) terms
	Inspection and supervision:	1%
	Credit fee:	0.75%
	Currency:	Single Currency Facility in U.S. dollars
<b>Objectives:</b>	<p>The program's general objective is to strengthen the capacity of the Government of Peru to supervise, monitor and inspect the environmental and social aspects of the Camisea gas project and to set in motion programs, projects and mechanisms that will make development in the project's area of influence both sustainable and balanced.</p> <p>The following are the specific objectives proposed for the program: (i) develop the institutional capacity of Peruvian government entities directly involved in the inspection, supervision, and monitoring of the environmental and social impacts of the Camisea gas project and collaborate to set up a regional environmental and social development fund for the Camisea gas project's area of influence; and ii) address</p>	

priority activities that are the Government of Peru's responsibility and are intended to mitigate the Camisea gas project's indirect negative environmental and social effects.

**Description:**

The Government of Peru has started up a mechanism coordinating the various agencies that supervise and monitor the Camisea gas project's environmental and social impacts. This government undertaking needs funds to promptly and effectively meet the demands created by a project as complex and sweeping as the Camisea project. The proposed program's two components are described below:

**1. Institutional strengthening (US\$5.2 million)<sup>1</sup>**

This component will improve the Government of Peru's capacity to supervise and monitor the social and environmental aspects of the Camisea gas project and finance the preinvestment studies and activities that will ensure sustainable and smooth development of the project's area of influence. The following are among the activities to be financed:

- a. Strengthening of the office of the Grupo Técnico de Coordinación Inter-institucional Camisea [Camisea Inter-institutional Technical Coordination Group] (GTCI); loan proceeds will finance the cost of the Director of the GTCI Office and of the executing unit's (EU) technical staff.
- b. Portable computer and laboratory equipment for taking water and soil samples.
- c. Consultation workshops in the project's area of influence and staff training.
- d. Consulting services totaling 210 consultant/months, on issues related to the environmental impact of hydrocarbons and supervision of infrastructure construction in general, sociology, anthropology, ecology, forestry, environmental monitoring and management, geographic information systems and others necessitated by the technical requirements of the project's environmental supervision and monitoring. Under this component, support will also be provided to the Camisea Ombudsman's Office and for the strengthening of the National Ombudsman's Office.

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<sup>1</sup> The figures include PROPEF-financed activities (PE-0237).

- e. The additional costs that the Camisea GTCI group agencies incur to keep the Peruvian government environmental and social inspectors at the construction sites in the field.

The program will also provide support to design the architecture (scale, structure, regulations) of the Fondo de Desarrollo Ambiental y Social de Camisea [Camisea Environmental and Social Development Fund] (FODASC) and finance the preinvestment studies for projects that would qualify for FODASC funding.

2. **Priority studies and activities in social and environmental protection and control (US\$1.1 million)**

Studies and minor investments will be made to avert and mitigate such indirect and cumulative environmental and social effects as colonization, the appearance of informal logging operations, occupancy of protected natural areas (PNAs), and to provide preventive health care to native communities. These include:

- a. Preparation of the final management plans for the new Vilcabamba National Park and the Ashaninka and Machiguenga communal reserves. Minor infrastructure has to be built in these protected areas (which will be created as the program is getting under way) to control (ranger stations) and service protected areas; this involves marking and posting, demarcation, stations to patrol the forests and control illegal wildlife trafficking, and supervision of land titling activities within the area directly affected by the project.
- b. Additional studies needed to consolidate the PNA system and tribal reserves (Megantoni Sanctuary and Nahua-Kugapakori Reserve).
- c. Formulation of a land-use plan for the Camisea gas project's area of influence, which is a corridor traversing the departments of Ayacucho, Apurimac, Huancavelica, Ica, Lima and Cuzco. The plan will be used as a compass to maximize sustainable use of existing resources and funnel them into investment.
- d. A preventive vaccination campaign to inoculate the isolated native population in the towns of Santa Rosa de Serjali (Nahua), Marankiato, Montetoni (Nanti) and other villages nearby.
- e. Preparation of a proposal for sustainable and comprehensive development of the area of influence of the new fractionation plant in the southern part of the country.

**The Bank's country and sector strategy:**

The program is consistent with the Bank's strategy in the country, which emphasizes increased productivity; greater social investment; the private sector's active linkage; more efficient and better-targeted social investment; and modernization of the State. This operation will make financing, building and operating the Camisea gas project feasible by ensuring proper environmental and social management and using execution of this project to energize regional development in its area of influence.

**Coordination with other official development institutions:**

Coordination with other official development institutions for this project is part of the due diligence process that the Private Sector Department is carrying out for the Camisea gas project (PE-0222). This coordination primarily included agencies such as the World Bank, U.S. Eximbank, and the Andean Development Corporation (CAF). As part of this process, lessons learned from gas and oil pipeline projects were reviewed. One salient lesson learned is the importance of institutional strengthening for the national and sector entities responsible for the supervision and oversight of works of this magnitude.

**Environmental and social review:**

Since the proposed program is, by design, intended to improve supervision and inspection of the Camisea gas project's environmental and social impacts, it will have a positive social and environmental impact. The environmental analysis of this operation has benefited from the environmental due diligence done in connection with the Camisea gas project (PE-0222). The program institutionalizes mechanisms and procedures for better fulfillment of the commitments that the concessionaires undertook in the environmental impact assessments (EIAs), improves consultation with and the participation of the affected communities, and sets up a transparent and readily accessible oversight and data flow system.

The Bank's Committee on Environment and Social Impact (CESI) examined Profile II of the program on 13 September 2002. As the CESI had requested in its Minutes 34-02, given the nature of the proposed project, this loan proposal, which the CESI reviewed on 25 October 2002, constitutes the program's environmental summary.

As this is a program to improve performance of environmental and social management, it will increase the efficacy of the measures introduced to control and minimize environmental and social impacts, ensure the long-term sustainability of the environmental protection, and improve the quality of life of the population living in its area of influence.

In summary, the program will help: (i) provide special measures to protect vulnerable groups; ii) collaborate in the cadastre and titling of land in the program's area of influence; (iii) control unauthorized access of settlers and other people who tap local natural resources, so that the gas operations are less likely to induce deforestation and harm to the biodiversity, thereby protecting fragile areas and critical habitats; (iv) improve the mechanisms for protecting and managing protected areas and communal reserves; (v) enhance the functions of the National Ombudsman's Office and the Camisea Ombudsman's Office, and (vi) improve the capacity to coordinate and manage socio-environmental issues within a framework of broad participation.

Creating and consolidating protected areas and communal reserves will help keep the indigenous territories intact and preserve the resources they shelter. Of these activities, the support for land-tenure regularization—formal recognition of ownership of the land—is essential to getting the local communities involved, in a lasting way, in sustainable productive activities. This is a concerted effort, carried out with the proceeds from the PETT-executed loan for a land titling and registration program (1340/OC-PE), and with financial contributions from the firm Transportadora de Gas del Perú S.A. (TGP).

**Benefits:**

The project's benefits are varied in nature. By building up the supervision and inspection role of the State agencies, the technical strengths of the 12 participating national institutions will be enhanced. Interinstitutional coordination has its own intrinsic benefits, making the work carried out more efficient and increasing synergies and complementarities. An added outcome will be the experience acquired and lessons learned in launching an interinstitutional coordination mechanism that makes the country more efficient at environmental and social supervision of large-scale, complex projects.

The environmental benefits are the outcome of better execution of environmental and social management plans. Proper application of the control and/or mitigation measures will reduce the gas project's negative impacts. With government institutions playing an active role, the project's indirect negative effects can also be controlled by preventing spontaneous settlement and illegal trafficking in timber and fauna, while also ensuring prompt treatment of the scattered native population's health needs.

The communities will be better off because the program will ensure that their rights are respected and that they receive just and timely compensation. Other benefits will accrue from the community training and from the communities' involvement in a transparent consultation

process. Implementing sustainable economic and social development projects that will be supported pursuant to a concerted Government of Peru strategy of support in partnership with the consortia awarded the licenses to develop the gas project, will produce even more benefits.

The new protected areas (Vilcabamba Park and the future Megantoni Sanctuary) will ensure biodiversity conservation in one of the most important biological areas in the world. Creation of the Ashaninka and Machiguenga community reserves will be instrumental in bringing about harmonious development of the resident communities.

**Risks:**

**Risk:** The firms awarded the concessions make considerable headway with works at the site. The risk is associated with the lack of timely supervision and surveillance procedures to keep pace with the construction work. **Mitigation:** Through the Private Energy Investment Oversight Agency (OSINERG), the Government of Peru earmarked funds to enhance its supervision and inspection capacity and a considerable institutional effort is being made to overcome technical and budgetary limitations until the proceeds from the present loan become available.

**Risk:** Complex institutional coordination, where national, regional and local entities have overlapping roles and functions. The scale of the program and the diversity of the areas it crosses only complicate the problem. **Mitigation:** Creation of the Camisea GTCI Office as a coordination mechanism, consultation workshops and training programs.

**Risk:** Some components of the Camisea gas project's works have still not been determined, such as the fractionation plant and the port terminal. Also, the environmental and social management plans are under review as part of the environmental analysis of the Camisea gas project. As a result, the supervision and monitoring activities, both by the concessionaires and by the Government of Peru, will have to be adjusted when these matters are decided. **Mitigation:** The design of the Government of Peru's strengthening program is flexible and mechanisms are being built in so that it can be adjusted. The Bank's follow-up will include a mission six months after the date of the signing of the loan contract, to adjust the work plan. Annual evaluations have also been included.

**Special contractual clauses:**

1. **Special conditions precedent to the first disbursement:**
  - a. Form the Camisea GTCI Office as program administration unit (PAU) in the MEM, hire the Director, and put into effect the internal rules by which that unit is to operate (paragraphs 3.5 and 3.6).

- b. By executive order, create the new Vilcabamba Park and the Ashaninka and Machiguenga Communal Reserves (paragraph 3.11).
- c. Approve and put into effect the eligibility criteria by which the preinvestment studies component will operate (paragraph 3.10).

2. **Conditions during execution:**

- a. Prior to the disbursement for the studies and priority investments components, the performance contract is to be signed with the respective coexecuting agency (paragraph 3.14).
- b. Review and adjustment of the general work plan six months after the date on which the loan contract is signed, and annual program evaluations conducted with Bank participation (paragraphs 3.17 and 3.18).

**Poverty-targeting and social sector classification:**

This project does not qualify as a social-equity-enhancing project, as described in the indicative targets for Bank activities mandated by the Bank's Eighth Replenishment (document AB-1704). Nor does it qualify as a poverty-targeted investment (PTI).

**Exceptions to Bank policy:**

See next paragraph "Procurement."

**Procurement:**

The procurement of goods and services and the construction contracting will be carried out in accordance with the procedures established in Annex B of the loan contract. International competitive bidding will be required for procurement of goods and services valued at over US\$350,000. The program does not call for construction work that would require international competitive bidding (contracts for amounts greater than US\$2 million). Tenders involving lesser amounts will be governed by national legislation. Consulting contracting will be done according to Bank procedure.

Pursuant to rule GS-404, Continuation of Services, as a waiver of competitive contracting, at the executing agency's request it is proposed that the director and technical assistant of the Camisea GTCI Office remain in their posts and continue to perform those functions during program execution (paragraph 3.5).

## I. CHARACTERISTICS OF THE PROGRAM

### A. Background

#### 1. The Camisea gas project

- 1.1 Peru's Private Investment Commission (COPRI) issued an international call for proposals on the Camisea gas project. Offered as a package, the project's objectives were set, while the technical details for design, construction and operation were left up to the investors. The objective of the Camisea gas project is to drill the Camisea gas fields and then pipe the natural gas to markets on Peru's coast and abroad. The project has three components: (i) exploration of the Camisea gas fields, Block 88; (ii) transport of the natural gas by way of a 700-km gas pipeline running from Las Malvinas to the Lurín City Gate, and another 540-km pipeline to Pisco carrying natural gas liquids, and (iii) gas distribution in Lima and Callao. The project also involves construction of a gas liquification plant and a terminal for exporting natural gas liquids in the southern part of the country.
- 1.2 The impact of the Camisea gas project on the Peruvian economy is enormous. The investment will represent 0.5% of 2002 GDP, and 1% of 2003 GDP. The total amount to be earned during operation will represent 30% of today's GDP. The project would cut the country's hydrocarbon deficit by 39% and lower national energy spending by 16%. The savings that industry is expected to make as a result of energy substitution are estimated at some US\$1.9 billion. For local government, the new tax revenues would represent 60% of their current budgets. During the project's construction, 8,000 jobs will be created; by the time the project has been in operation for 30 years, it will have 100 permanent employees.
- 1.3 The project begins when the natural gas is piped from the wells and carried to a liquid gas separation plant located in Las Malvinas, some 50 kilometers from the wells. The Camisea gas wells are in two fields, San Martín and Cashiriari. Each is approximately 500 kilometers east of Lima, in a region of the Amazon tropical forest known as the Lower Urubamba. Thus far, two wells have been drilled in each field. Proven hydrocarbon reserves in the Camisea fields amount to 8.7 tcf (trillion cubic feet) of natural gas and 545 MMBls (millions of barrels) of natural gas liquids. At the plant, the water is separated from the liquid hydrocarbons contained in the natural gas and the latter is prepared to be piped to markets on the coast; overflow gas is re-injected into productive reservoirs.
- 1.4 The gas pipeline begins at Las Malvinas, in the department of Cuzco, and crosses the departments of Ayacucho, Huancavelica, Ica and Lima. The pipelines will be underground all along the route and will traverse elevations ranging from 300 m to 2,800 meters above sea level in the rainforest region; at their highest point, the pipelines will be at 4,800 meters above sea level in the Andes, after which they will gradually drop back down to 50 meters above sea level along the coast.

- 1.5 The natural gas distributed in Lima and Callao will initially reach some 10,000 customers in the industrial and business sectors, and perhaps the electric power sector. The commitment that the consortia made to the Government of Peru was that the commercial natural gas operation in Lima would begin in August 2004.
- 1.6 The drilling of the Camisea fields, the liquification of the gas and its exportation are being done by a consortium headed by the Argentine firm Pluspetrol. The piping of the natural gas and natural gas liquids to the Lima City Gate is being handled by Transportadora de Gas del Perú S.A. (TGP), a Peruvian firm, in partnership with Pluspetrol (Argentina), Hunt Oil (U.S.), SK Corporation (Korea), Sonatrach (Algeria), Tecast—which is part of the Techint group (Argentina), and GyM (Peru). The firm called Gas Natural de Lima y Callao—owned by Tractebel and part of the French group Suez—has the job of distributing the gas in Lima and Callao.
- 1.7 The Camisea gas project involves a total investment estimated at \$1.45 billion. Of that amount, US\$800 million is for the project “Natural Gas and Natural Gas Liquid Pipeline System,” which requested financial support from the Inter-American Development Bank (IDB) to cover a portion of its costs. The Bank’s Programming Committee considered the Investment Eligibility Review for the project, authorizing signature of the respective mandate letter for the project “Camisea gas pipeline system” (PE-0222). PRI is conducting the due diligence process.

## **2. The environmental and social impact assessments of the Camisea gas project**

- 1.8 Using international and local consulting services, Pluspetrol prepared an Environmental Impact Assessment (EIA) and a related Social Impact Assessment (SIA). These assessments were presented to the Ministry of Energy and Mines on August 17, 2001, and approved on April 24, 2002, after the Government of Peru had held three public hearings. The basic engineering design featured a number of measures to minimize the magnitude of the environmental and social impacts. The method known as offshore inland was adopted, where each platform is operated independently; no access roads are being opened leading into the Block 88 area. A decision was also made to build a single, self-sufficient logistical center in Malvinas, to implement an automated production process, and to adopt mechanisms and vehicles to continuously inform and consult with the local population, and engage its permanent participation.
- 1.9 The most sensitive environmental and social issues in the project area were identified. The measures proposed to mitigate those sensitivities were rolled into the Environmental Management Plans and the Environmental Monitoring Plans. These are an integral part of the EIA, where they appear as the contractors’ responsibility and are appended to the construction contracts.

- 1.10 The social sensitivities are covered under a community relations plan, the local labor hiring policy, the workers' code of conduct, and the anthropological contingency plan for groups on initial or limited contact.
- 1.11 TGP prepared an EIA and an SIA for the Natural Gas and Natural Gas Liquid Pipeline (Camisea-Lima) System. It was the basis for an Environmental Management Plan (EMP) for construction and operation of the gas pipelines. Additional studies have been conducted for the variants of the original project, which the MEM approved on March 8, 2002. The EMP consists of a plan for preventing, correcting and/or mitigating environmental damage, community relations plans, a waste management plan, an environmental training plan, contingencies plan, a plan for shutting down and abandoning facilities, and an environmental monitoring and inspection plan.
- 1.12 The TGP social management programs are combined in the community relations plan. The measures there are geared toward avoiding colonization of the rainforest area inhabited by native communities, controlling access by right of way; avoiding conflicts between the project work force and the local population; preventing pressure on the wildlife population; and avoiding the potential for pollution of water sources. The activities include training in community relations for the staff, temporary contracting of local personnel, procurement of local products, communication and permanent consultations with the local population.
- 1.13 Other complementary programs include: the local population's involvement in socio-environmental monitoring and management, agreements to pay land-use fees, assistance in the case of medical emergencies and support to local development programs. An employee health and hygiene program is available for contract personnel, premised on a zero-accident policy.
- 1.14 As part of its responsibility in the project, Pluspetrol submitted to the competent authorities, the EIA for the fractionation plant and the terminal to be used for exportation of natural gas liquids in the southern part of the country. That EIA is now being evaluated. The facilities were originally planned for Pampa Clarita. Later, Pluspetrol found five alternative sites. The company is currently working up the EIA for the Pisco site. However, national authorities are examining the other alternatives for the plant's location, and have requested more information from Pluspetrol.
- 1.15 The environmental impact assessments prepared by the concessionaires and approved by the Government of Peru acknowledge that the project will have significant environmental and social impacts. They propose a mitigation and environmental management program to reduce and control any negative effects. With government supervision, the concessionaires will be responsible for these activities. A summary of the EIA findings appears in the ESIB for project PE-0222,

available at the Bank's Public Information Center (PIC). The EIAs are also available at the MEM web site ([www.mem.gob.pe](http://www.mem.gob.pe)).

- 1.16 Some NGOs have questioned the findings of the consortia's EIAs and the consultation processes undertaken. They have also expressed concern about the fact that construction has moved forward before rigorous environmental and social control procedures could be put in place. The Bank and the Government of Peru have been pro-active in trying to make the construction work more attentive to environmental and social issues, and have focused on improving the consortia's environmental and social management plans.

### **3. Additional actions requested by the Bank**

- 1.17 Given the complexity of the environmental and social issues associated with the project, the Bank considered it necessary to form a working team for the environmental and social analysis of project PE-0222, one that included environmental and social specialists from various Bank departments. The following principal aspects needed to be taken into account:

- a. An analysis of the project as a whole, in other words, the environmental and social analysis covers drilling, pipelines, distribution and export terminal.
- b. A stakeholder analysis to identify parties (for example, nongovernmental organizations, national and international academic institutions, private firms) with an interest in the project.
- c. A public consultation and participation plan for the due diligence phase, in consultation with Peruvian and international indigenous and environmentalist organizations with headquarters in Peru, and a number of other public-consultation events in addition to those already conducted by the project proponent and the Peruvian authorities.
- d. Design and implementation of a special supervision system for the Camisea gas project, involving independent and external audits and supervision; the system is to be transparent for the affected local population and include mechanisms for filing complaints and settling disputes.

- 1.18 As part of the due diligence for project PE-0222, the PRI team is confirming whether these activities are being carried out. The concessionaires will be responsible for the activities' funding and implementation. However, some activities would not be the direct responsibility of the private operators, as they involve actions and obligations that are the exclusive purview of government agencies. The activities for which the Government of Peru is responsible are spelled out in the respective concession contracts and licensing documents; environmental and social responsibilities are also detailed in the respective environmental and social impact assessments and in the briefs of those assessments, which are being

incorporated into the due diligence process of the IDB and the Andean Development Corporation (CAF).

- 1.19 In the environmental and social analysis of project PE-0222, the Bank has devised a plan for consultation and participation in addition to the one already prepared by the Government of Peru, the implementation of which started back in August 2002. The purpose of the public hearings is to get the views of the persons directly affected by the activities of the project, taken as a whole. The hearings program is divided into three main types of activities: meetings in the major urban centers in the project's area of influence; meetings with native and campesino communities, and meetings in Washington, D.C. with global environmental organizations. In August 2002, a total of 15 public hearings were held: 9 with native and campesino communities, and 6 in urban centers. The latter were held in Pisco, Ica, Vinchos, Ayacucho, Huancavelica, Cuzco and Lima.
- 1.20 The consultations with the native and campesino communities involved those located in the Lower and Upper Urubamba regions that were most proximate to seismic activity, gas exploration and construction of the rainforest stretch of the natural gas pipelines (such as the communities of Nuevo Mundo, Camisea, Kiriguete, Segakiato, Kiteni, Kepashiato and others); the communities in the Lower Urubamba near the gas pipelines (Timpia, Chokoriari, Camaná and others) and the communities in the mountainous and coastal areas along the route of the pipelines (San Miguel Huancavelica, Rumishaca and Cañete, among others).
- 1.21 These hearings and consultations have had very positive results, with strong participation on the part of indigenous communities and local governments in the rural areas, and strong turnout on the part of key players, and NGOs in urban areas. The general feeling is one of support for the project and a sense of tremendous expectation in terms of the benefits that it would mean for development of the project's area of influence. There was heavy emphasis on the need to attract more investment and to finance development projects in the program's area of influence. On the other hand, the NGOs expressed concern over the need to keep the consultation process open and transparent; about the effects the project might eventually have on vulnerable communities which have heretofore had no contact with outsiders; and about the proper application of World Labour Organisation Resolution No. 169. One issue that drew particular attention was the concern over the location of the future fractionation plant and the terminal in the Pisco area. The Government of Peru has its environmental impact assessment under consideration. The competent authorities say that this matter will be addressed once the information on the alternative locations in the southern part of the country is available.

#### **4. Status of execution of the Camisea gas project**

- 1.22 The Pluspetrol formally commenced preparations to drill for natural gas in Block 88 in December 2001. The seismic studies are about to be completed. Construction of the gas plant got underway in June 2002. Pluspetrol has cleared and leveled an area of 300 hectares where the plant, the airport and other facilities will be located. It has also cleared and leveled the strip through which the flow lines will pass and has built three terminals on the Urubamba River. Drilling of the San Martín I well began in July 2002, and is down to a depth of 2,300 meters thus far. The laborers and the contractors' work force total 2,350 at the present time and live in two camps.
- 1.23 Construction of the natural gas and liquid gas pipelines (Camisea-Lima) started in April 2002 and is currently underway on several fronts: the coast, the mountains, and the rainforest. In the rainforest, the work will be limited to two periods in the year that are not within the rainy season. TGP, for its part, has 4,700 workers living in 8 camps. The following work has been done on the LNG pipelines and the right-of-way: 258 km of right-of-way cleared and leveled; 115 km of ditch dug, 106 km of pipeline laid out; 92 km of pipeline with welding and soldering completed, and 58 km of pipeline buried. The following is the progress achieved thus far on the 715-km natural gas pipeline: 258 km of land cleared; 237 km of land leveled, 37 km of ditch dug, 24 km of pipeline laid out, 19 km of reinforced pipeline, 18 km pipeline welded and soldered, and 4 km laid.
- 1.24 Payment of compensation for right-of-way has proceeded normally. As of the present, negotiation of right-of-way and payment have been completed in the lowland and mountain areas; that same process is now getting underway on the coast. To complement this process and for physical-legal clearance, titling and recording of rural properties within the project's area of influence, the Special Project for Land Titling (PETT) and the TGP have signed a cooperation agreement. The activities have already gotten underway, with resources provided by the TGP and proceeds from the Bank-financed loan for the Land Titling and Registration Program (1340/OC-PE). With this work, the consortia's local development projects and the future community-supported projects planned for the Camisea gas project's area of influence can be more effectively tended.
- 1.25 Tractebel will deliver natural gas in the cities of Lima and Callao. The competent environmental authorities approved the EIA for this component in July 2002. Construction is expected to begin in November 2002.
- 1.26 At the outset, the Government of Peru's activities focused on reviewing the EIAs and completing the environmental licensing requirements that Peruvian law stipulates. The presence of government agencies was not strong when the on-site supervision began. However, the creation of the Grupo Técnico de Coordinación Interinstitucional [Inter-institutional Technical Coordination Group] (GTICI

Camisea) in the Ministry of Energy and Mines in July 2002 had the effect of moving the government agencies' functions in environmental surveillance and supervision in a new direction and getting them more actively involved. Since then, on-site inspections have been conducted through the GTCI Camisea office, which has participated in public hearings, representing the Government of Peru, has issued a technical opinion on the pending environmental studies, and has had periodic evaluation meetings with the consortia about their social and environmental management. The fieldwork also included parallel vaccination campaigns conducted in conjunction with the Ministry of Health and the SETAI to inoculate isolated communities.

- 1.27 In cooperation with NGOs like the Asociación para la Conservación del Patrimonio del Cutivireni [Cutivireni Cultural Preservation Association] (ACPC) and the Centro para el Desarrollo del Indígena Amazónico [Amazonian Indigenous Development Center] (CEDIA), the INRENA has been working to create three natural protected areas (a national part and two communal reserves) in the Vilcabamba Cordillera, which is within the Camisea gas project's area of influence. The studies were conducted as part of the GEF Project "Participatory Conservation and Sustainable Development with Indigenous Communities in Vilcabamba," being executed jointly by Conservation International, ACPC and CEDIA. A proposal has been made to establish an Ashaninka Communal Reserve on the western side of the Cordillera, a Matsiguenga Communal Reserve on the eastern side, and a national park in the highest reaches of the Cordillera. This proposal has been used as the basis to begin the legal process that will result in the formal establishment of these new protected natural areas.

## **5. Supervision and inspection of environmental and social impacts**

- 1.28 The environmental and social management plans for each component of the Camisea gas exploitation project propose environmental and social monitoring and supervision plans. In the case of Pluspetrol, there is a separate monitoring plan for every subproject, to be done by the consulting firm Energía y Medio Ambiente SRL. The follow-up will be continuous and on site, and will produce monthly reports. The plan is to monitor bodies of water, waters discharged by waste treatment plants in camps, and noise. A contract was negotiated with Oxford University for a biodiversity-monitoring program, and with the Instituto Nacional de Cultura [National Cultural Institute] to supervise the archeological discoveries.
- 1.29 Pluspetrol's environmental and social management system also features an internal supervision and control program. The firm's own staff periodically audits the firm's behavior and the behavior of the contractors, all in keeping with the EMP. The firm's goal is to put an environmental management program into place that is compatible with ISO 14001 international standards.

- 1.30 The TGP Monitoring Plan involves an internal procedure for which the firm DOMUS, which specializes in environmental monitoring, was brought in. During construction, this process involves several temporary testing points that move as the job sites and camps move down the pipeline route. The reports are issued daily and merged into weekly reports. The TGP contracted the consulting firm of Knight Piésold (KP) for independent monitoring and continual auditing throughout the construction phase. The audit reports are put together on the basis of the daily inspections and then combined into monthly reports. The specialized firm Capital Group has been contracted to supervise the social impacts and reports to KP to put together the monthly reports.
- 1.31 The firms and the Government of Peru have found the communities' participation in the process of environmental and social monitoring to be valuable. The Programa de Monitoreo Ambiental Comunitario [community environmental monitoring program] (PMAC) uses the existing communal organizations as principal agents supervising compliance with the EMP. The plan allows for routine inclusion of communal monitors in the environmental and social supervision activities. The consortia contracted an NGO –Pro-Naturaleza- to train the communal monitors. Equipment and supplies are provided, as are the logistical facilities necessary for the monitors to participate. To arrange and coordinate the activities, a steering committee was set up, consisting of representatives from the indigenous federations. Plans are for the GTCI Camisea Office to take over the program's coordination and maintain the relationship with the consortia and the representatives of the native communities.
- 1.32 The consortia are performing the environmental monitoring in routine fashion. The monitoring plan itself is being adjusted and fine-tuned, which is normal for works of this type. The adjustment is the result of the evaluation of the initial findings from the data for the first months, which are feedback for the system; it is also the result of adjustments to the environmental management, made as part of the environmental and social analysis of project PE-0222. But the adjustments are also necessitated by the fact that additional oversight and monitoring requirements have to be included for the construction of components whose final location is still being decided, such as the fractionation plant and the terminal in the southern part of the country. The oversight program for the operational phase that will begin in 2004 is also being prepared.
- 1.33 The government's main responsibility in the area of supervision and inspection is assigned to OSINERG, which conducts routine checks to ensure that the terms of the concession contract are being honored. This necessarily includes the launch of the Environmental Management Plan approved with the respective study of the Environmental Impact Assessment. OSINERG's capacity is limited. Because its budget was so limited, it did not figure prominently in the on-site supervision during the startup of the works. This situation has been gradually corrected. In August 2002, the government appropriated additional funds (US\$2 million) for the

OSINERG. Once the initial problems had been corrected, 11 new field inspectors were hired and started their inspection work in October 2002.

## **6. Camisea's strategic and environmental importance**

- 1.34 The Camisea gas project is more than a private business venture. It is one of Peru's priorities. It has enormous strategic importance because it will provide and transform the energy base to cleaner, more abundant and more economical sources, and give Peru energy export potential and the potential to generate new related business activities.
- 1.35 The Camisea gas project is a central component of the government's energy policy, because its reserves are 10 times greater than the hydrocarbon reserves the country now has. This project's development will profoundly transform Peru's energy picture by introducing gas as a fuel in the most heavily industrial and densely populated area. Natural gas is the most economical fuel for industry; its principal market is for generating electric power, where it will displace diesel fuel and bring about a notable decline in the price of electric power. The natural gas liquids will be sufficient to cover the local market's needs and to provide an export supply, which will directly impact Peru's balance of trade. The main environmental benefits of the project will be the improved air quality in industrial areas, with the reduction of carbon monoxide (CO), nitrogen oxide (NOX), sulfur dioxide (SO<sub>2</sub>), hydrocarbon (HC) and carbon dioxide (CO<sub>2</sub>) gases.
- 1.36 However, the challenge of bringing this project into being is compounded by the challenge of drilling for, piping and distributing the natural gas and LNG in a way that does not alter their fragile surrounding ecosystems, while also respecting the rights of the various native and campesino groups that live in the area of influence.
- 1.37 Particular attention has to be given to the indirect, cumulative environmental impacts that result when the areas become accessible to settlers, people who tap local natural resources, or other unauthorized groups. This cannot be allowed to happen. Similarly, special, separate measures must be planned for groups that are particularly vulnerable to the project's direct and indirect results. These include the legally constituted native communities with legal title to their land, the isolated native settlements, and nonsedentary native groups that have never had contact with outsiders. The objective is to protect them against contagious diseases for which they have no natural immunities and against encroachments upon their territories and their way of life that can endanger their survival and physical and cultural integrity. To address these issues, a concerted effort will be needed on the part of the concessionaires and the various government agencies responsible for supervision, oversight and inspection of the social and environmental aspects of the Camisea gas project.

- 1.38 The fact that any potential negative impacts will be averted or minimized in the drilling areas or the areas through which the gas and LNG pipelines pass, is not to say that the energy project will bring any benefit to these peoples. Indeed, these peoples live so far removed –often in very remote areas- and in such poverty, and are so vulnerable, that it is unlikely if not impossible that the so-called benefits of Camisea will ever reach them. Therefore, it is important that a fund be created that will be instrumental in generating direct benefits for these peoples. By supporting the formulation of studies and activities, the fund will be assisting with sustainable development projects funded by the State, the consortia operating the project, and international cooperation.

## **7. The project's institutional-environmental framework**

- 1.39 Peru's institutional framework consists of a system wherein environmental authorities are exercised by various sectors, coordinated by the Consejo Nacional del Ambiente [National Environment Council] (CONAM), the agency that steers the nation's environmental policy and that sets the principles of policy and management that guide the system. It also designs instruments and sets them in motion. Under this system, through their respective authorities the sectors themselves directly supervise the environmental performance of the productive sectors. The MEM is the competent authority for environmental matters in the energy and mines sector, through its Dirección General de Asuntos Ambientales [Environmental Affairs Administration] (DGAA). The Organismo Supervisor de Inversión de Energía [Private Energy Investment Oversight Agency] (OSINERG) oversees the legal and technical aspects of hydrocarbon-related activities, and for compliance with the provisions on environmental protection and conservation in the energy sector. Its role is mainly one of oversight and audit. PERUPETRO is the State office that oversees compliance with the technical, administrative and legal matters, under the terms of the licensing contract for exploration and exploitation of hydrocarbons in Block 88.
- 1.40 The following are some other Peruvian government agencies involved in environmental and social inspection, supervision and monitoring and management of the planning and development of the Camisea gas project: the Instituto Nacional de Recursos Naturales [National Natural Resources Institute] (INRENA), which manages and preserves natural resources, including management of protected natural areas; the Dirección General de Capitanías y Guardacostas [the Harbormasters and Coast Guard Administration] (DICAPI), which patrols for pollution in the ocean, rivers and lakes; the Ministry of Health, through the Dirección General de Salud Ambiental [Environmental Health Administration] (DIGESA), which controls the disposal of waste and oversees the sanitary quality of water, air, noise and hazardous waste; the Comisión Nacional de Pueblos Andinos, Amazónicos y Afro-peruanos [National Commission of Andean, Amazonian and Afro-Peruvian Peoples] (CONAPA) and its Technical Secretariat (SETAI), which handles business related to indigenous peoples and Afro-Peruvian

- communities; the Ombudsman's Office, which sees to it that the various State agencies perform their government functions and makes certain that the civilian population has access to information; the Dirección General de Caminos [General Highway Administration], which is part of the Ministry of Transport and whose function is to preserve the roads system; the Special Land Titling Project (PETT) which conducts cadastres and community titling programs; and the Instituto Nacional de Desarrollo [National Development Institute] (INADE), responsible for land-use projects.
- 1.41 None of these agencies has a budget sufficient to handle the social and environmental supervision and surveillance that a project of the Camisea gas project's size and features will demand. This will be an enormous undertaking, with the bulk of the work coming during the construction phase, followed by less intense activity in the subsequent operational phases. The institutional analysis indicates that the Peruvian government's agencies are well staffed, equipped and large enough to handle the normal and routine activities. The Camisea gas project is a much larger undertaking. Most of the effort will come in the relatively short and fast-paced construction period. The project is all the more complex when one considers the environmental conditions in the long project corridor and the presence of social protagonists of very different types. To carry out their functions in this project, these agencies will need more than their customary appropriation.
- 1.42 With this framework, the Government of Peru has undertaken a significant effort to supervise and monitor the environmental and social impacts, based on the competencies of the corresponding public agencies. To make that work more effective, the Government of Peru has instituted a Camisea Inter-institutional Technical Coordination Group (GTCI) within the Ministry of Energy and Mines, which is the government agency in charge of the Camisea gas project. That coordination group is made up of the agencies with jurisdiction over the social and environmental aspects of the Camisea gas project and is run by the GTCI Camisea Office, which is under the Ministry of Energy and Mines. It is the job of the GTCI Camisea Office to put into place a mechanism that coordinates and supports the various environmental and social authorities with jurisdiction over, or pertinent to, the project. In this context, new and improved proficiencies in management, monitoring, the performance of studies and activities, operation, application of techniques and reporting would be created, while also fostering adequate liaison with all public and private agents and civil society.
- 1.43 Launching the GTCI Camisea is the Government of Peru's way of effectively safeguarding the State's environmental and social interests in the Camisea gas project. The GTCI Camisea will make it easier to coordinate the various government agencies. It will introduce procedures that ensure deliberate and informed decision-making to properly supervise the environmental and social performance of the project's operators and help generate sustainable development in the project's area of influence. The GTCI Camisea's work will be particularly

intensive and will be needed only during the construction phase of the gas project. The supervision and inspection during the operational phase will be more routine, and will basically be the job of OSINERG (a regulatory agency) and the MEM (a policy-making agency), both of which have resources from the regular budget and from the gas royalty payment to cover this routine function long term.

- 1.44 Given the importance of the Camisea gas project, the Government of Peru created the Camisea Ombudsman's Office by Executive Decree 030-2002.EM. Its role is to prevent disputes or conflicts associated exclusively with the social and/or environmental issues posed by the project's development and implementation. The government is in the process of selecting the ombudsman for the Camisea gas project. The selection will take into account the experience, career, good name and reputation of the candidate, as an assurance of his/her impartiality in the performance of his/her office.

## **8. Coordination with other official development institutions**

- 1.45 Coordination with other official development institutions for this project is part of the due diligence process that the Private Sector Department is carrying out for the Camisea gas project (PE-0222). This coordination primarily included agencies such as the World Bank, U.S. Eximbank, and the Andean Development Corporation (CAF). As part of this process, lessons learned from gas and oil pipeline projects were reviewed. One salient lesson learned is the importance of institutional strengthening for the national and sector entities responsible for the supervision and oversight of works of this magnitude.

## **9. Conceptual framework**

- 1.46 The Bank's support will make the Camisea gas project's funding, construction and operation viable by ensuring proper environmental and social management and by using this project as a vehicle to energize regional development in the project's area of influence. Previous experiences with the construction of oil and gas pipelines have underscored how important it is that social and environmental issues be prioritized, with the emphasis always on involving the affected population.
- 1.47 The Government of Peru believes that the Camisea project should be matched by a parallel institutional strengthening program to address the following needs: (i) improve the capacity of the government agencies in charge of the project's supervision, monitoring and inspection; ii) design and implement an economic, environmental and social development fund for the project's areas of influence; and (iii) control and/or reduce any undesirable project impacts for which the Government of Peru bears direct responsibility.
- 1.48 The activities proposed by the Government of Peru are consistent with the Bank's plan of action for addressing the environmental and social impact problems of

- project PE-0222 and are essential to making the realization of one of the country's most important projects possible. These activities would fill technical, institutional, environmental and social voids that are essential for the Camisea natural gas project to move smoothly and achieve its objectives.
- 1.49 The operation is premised upon a number of objective facts. First, there is a gap between the skills and capacities the State agencies have and those they must have for proper, consistent supervision and inspection. While it is true that the experience built up by Peruvian State agencies with environmental and social competencies has been enriched in recent years thanks to institutional strengthening programs, new technical expertise and equipment, and by effective management in a series of large-scale investment projects, none of those projects has been as complex as or had the geographic scale and cultural scope of the Camisea Gas Project, nor has the pace of the construction work been so fast. Accordingly, a priority for this operation is to quickly upgrade information and management capacities. To that end, a series of short-term (between one to four months) consulting services will be used to endow State agencies with the expertise they will need to make decisions and to carry out their own supervision and inspection. There will also be longer-term contracts for personnel to work with the State agencies to support and strengthen the management of each one.
  - 1.50 Second, the rapid pace of the project during the construction period demands well-timed, preventive action on the State's part. The latter would conduct a number of measures involving management of protected areas, land titling or health campaigns that, if not carried out promptly, would be useless later because the undesirable impacts and damage caused by the failure to act swiftly would have already taken their toll. While the Peruvian State knows precisely what these activities are, the budget is so tight that it could prove to be an obstacle or a delaying factor. The operation is, therefore, a means to ensure that the funds are there when and as needed.
  - 1.51 Third, given the benefits that will accrue to the communities and peoples who live physically in the Camisea gas project's area of influence in the form of development projects conducted through a special fund, that seed fund will be a dynamic factor leveraging the resources that the Peruvian State and the operators are to invest. Other sources of international cooperation are expected to join this effort.
  - 1.52 For all these reasons, this operation's environmental and social impacts will be positive. It is expressly designed to support the supervision and auditing of the environmental and social impacts of the Camisea gas project. Its activities are essential no matter how and by whom the Camisea Gas Pipeline Project is funded.

## II. THE PROGRAM

### A. Objective

- 2.1 The program's general objective will be to help strengthen the Government of Peru's capacity to supervise, monitor and inspect the environmental aspects of the Camisea gas project and launch programs, projects and procedures that foster sustainable and harmonious development in the project's area of influence. The specific objectives proposed are to: (i) develop the institutional capacity of the government agencies directly involved in inspecting, supervising and monitoring the Camisea gas project's environmental and social impacts and to help set up an environmental and social development fund for the project's area of influence; and (ii) address priority activities that are the Government of Peru's responsibility and that mitigate the Camisea gas project's indirect environmental and social effects.

### B. Description

#### 1. Institutional strengthening (US\$5.16 million)<sup>1</sup>

- 2.2 The purpose of this component is to increase the government's capacity to supervise and monitor the social and environmental aspects of the Camisea gas project and to finance the preinvestment studies and activities that will foster sustainable and harmonious development of the project's area of influence.
- 2.3 The component will support the work of the group of agencies competent in matters related to the Camisea gas project and in charge of supervising and monitoring the environmental, social, hygiene-related and industrial safety commitments undertaken by the Camisea gas project concessionaires, and will enable that group to function efficiently during the construction phase and subsequent operation of the Camisea gas project. The support will enable each agency to perform its responsibilities effectively. This work is already underway in the form of a major effort to coordinate the agencies in GTCI Camisea and to ensure their institutional presence in the project. With the program's resources, the gap between the very rapid construction pace and the pace of the oversight activities can be narrowed.
- 2.4 The Bank's resources will finance consulting services, technical equipment, vehicles, training, mobilization, seminars, sampling and laboratory testing, workshops and specialized technical assistance. They will also help build up the government's role in coordinating the community-monitoring program being conducted with NGOs, local governments and directly affected communities.

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<sup>1</sup> The figures include PROPEF-financed activities.

2.5 The technical assistance also includes the contracting of individual consultants expert in the following, by institution:<sup>2</sup>

**a. GTCI Camisea Office**

2.6 (i) A coordinator, chief of project in charge of technical and administrative control, to ensure that the government agencies are participating effectively; (ii) a specialist in hydrocarbons and environment, to provide technical support to the work of the coordinator and responsible for coordinating the fieldwork of the participating agencies; (iii) a technical assistant to coordinate social activities and assist the coordinator with follow-up of sustainable development plans and other activities; (iv) a public relations person – communicator to devise the plan for communications and adequate dissemination of information to various target groups; and (v) a web-page programmer to design the Web portal for the Camisea gas project.

**b. The MEM's Dirección General de Asuntos Ambientales [Environmental Affairs Administration] (DGAA)**

2.7 (i) An environmental consultant specializing in hydrocarbons, in charge of preparing manuals on environmental monitoring and training community monitors, to coordinate the inspection work in the field; (ii) a social specialist, in charge of seeing to it that local development plans are carried out and compensations paid, to supervise the work of the community outreach workers; (iii) an analyst programmer to develop the program to transmit, receive and process data that the MEM mainframe receives from the remote units, and train DGAA staff; and (iv) a systems operator-technician.

**c. Instituto de Recursos Naturales [Natural Resources Institute] (INRENA)**

2.8 Consultants to create the baseline for the system for monitoring renewable natural resources in the new protected areas and communal reserves within the Camisea Gas Project's area of influence (wild flora and fauna; soils, hydrology and hydrogeology), information that can be used to prepare the definitive management plans for these areas.

**d. Secretaría de Asuntos Indígenas de Pueblos Andinos, Amazónicos y Afroperuanos [Bureau of Indigenous Affairs of Andean, Amazonian and Afro-Peruvian Peoples] (SETAI)**

2.9 (i) An anthropologist, to prepare and monitor the protocol for liaison with native communities, which includes the protocols for the communities in voluntary

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<sup>2</sup> The terms of reference for the consultants' contracts are available in the project's technical files.

isolation; (ii) a specialist in conflicts and negotiation, to strengthen the SETAI staff's skills in negotiation and persuasion.

**e. Consejo Nacional del Ambiente [National Environment Council] (CONAM)**

- 2.10 Consulting services for preparation of the plan for the national environmental system, including the design of vehicles and procedures for inter-sectoral coordination and citizen participation. The functions here are aimed at devising procedures and mechanisms that facilitate and consistently integrate the public sector's work on large-scale projects like Camisea.

**f. Dirección General de Salud Ambiental [Environmental Health Administration] (DIGESA)**

- 2.11 (i) A consultant to put together a balanced plan for the environmental quality of bodies of water, including standardization of criteria, decisions as to where samples will be taken, how frequently data will be collected, and how the information will be organized; (ii) a consultant on water quality management, who will be the program operative responsible for compiling and processing water quality data; and (iii) a water quality technician for laboratory analyses.

**g. National Ombudsman's Office**

- 2.12 (i) A consultant in negotiating and settling conflicts, who will train staff from this office and put together the work program; (ii) an advisor on environmental issues, who will provide technical assistance with the kinds of issues this Ombudsman's Office is not presently equipped to handle. This work will be coordinated with the activity of the Camisea Ombudsman's Office, a unit created specifically to settle Camisea-related disputes. The program will contribute US\$100,000 for startup of this new entity's activities. However, the Government of Peru has indicated that it is arranging nonreimbursable external funding to cover this function.

**h. Dirección General de Caminos [General Highway Administration] (DGC)**

- 2.13 (i) An engineer specializing in road construction, who will work on controlling access routes and the opening of new roads; and (ii) a consultant specializing in bridges and drainage works, who will ensure the physical stability of the infrastructure in use and/or affected by the construction.

**i. Organismo Supervisor de la Inversión Privada en Energía [Private Energy Investment Oversight Agency] (OSINERG)**

- 2.14 OSINERG's activities include an effective presence in the field to supervise and see that the concession contract clauses and provisions are being honored. The agency

- will detail 12 staff members, full time, to the on-site supervision activities. They will be on site constantly (alternating in groups of five). Additional inspectors will be added when and as needed for the technical work that the next phases of construction will involve (the fractionation plant and the distribution systems). OSINERG also has the authority to impose sanctions for contractual nonperformance, a function it will perform at the agency's main offices, with its legal department participating. This agency's activities are being financed with proceeds from the Government of Peru's contribution.
- 2.15 Two training workshops will also be financed for specialists from the government agencies, as will consultation and follow-up workshops paralleling the project's progress (two workshops for validation of the protocol for liaison with native communities, and 15 follow-up workshops in connection with the supervision and monitoring plan). Computer and data processing equipment, field equipment and portable laboratory equipment will be acquired for on-site sampling; an all-terrain vehicle and outboard motor boat will be acquired; laboratory services, and logistical expenses.
- 2.16 Some US\$1.4 million in project resources will be used to help design the architecture (scale, structure, regulations) of the Camisea Regional Environmental and Social Development Fund (FODASC) and to fund preinvestment studies for projects eligible for FODASC funding, thereby ensuring timely startup and implementation.<sup>3</sup> The considerable number of project profiles prepared by community organizations, local and regional governments and NGOs will be taken into account. One of the most advanced is the Urubamba Regional Development Plan. Estimates are that the loan proceeds could finance studies on projects that, taken together, would represent an investment of approximately US\$20 million.
- 2.17 In principle, the Government of Peru and the concessionaires have agreed upon the mechanism for the fund's administration, which would be set up as a separate structure. The project approval mechanism would engage the Government of Peru, concessionaires, civil society and the beneficiary community in the project approval process. FODASC will seek to establish a relationship of complementarity and synergy with other funds in the country, such as the National Compensation and Social Development Fund (FONCODES), the National Environment Fund (FONAM), the Trust Fund for State-protected Natural Areas (PROFONANPE), trust funds set up in the country under bilateral agreements (fondos contravalores) and other resources from donors. Basic eligibility criteria for

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<sup>3</sup> The fund's creation figures in the preliminary agreements reached between the Government of Peru and the concessionaires. The latter have said that they will contribute 1% to 1.5% of the investment made to capitalize the fund, while the Government of Peru's contribution will be determined at the time the fund's capital structure is agreed upon. In theory, the FODASC resources will be put to three main uses: (i) economic-social development activities; ii) ecological compensation activities; and iii) activities for development of indigenous communities and vulnerable groups.

FODASC's operation have been agreed upon. Under those criteria, the eligible stakeholders would be the (native, indigenous and settler) communities in the Camisea project's area of influence as determined by the land-use plan now being prepared, the NGOs, academic or research institutions that show that they represent the communities' interests, and local governments that show that they have the stakeholder communities' consent. The projects are to address the principal expectations and needs prioritized by the communities themselves, which is the best guarantee of their positive impact and sustainability. The project must also have the stakeholder community's endorsement and must show that the community took active part in the project's identification, design and execution.

- 2.18 In order to receive funding, project must demonstrate their technical, economic, financial, environmental and social feasibility. The stakeholder entity of any project that receives funding must undertake to follow Bank procedure and comply with Bank standards in evaluating the project's environmental effects, and to reduce or avoid negative social and environmental impacts.

## **2. Priority investments in and studies on social and environmental control and protection (US\$1.090 million)<sup>4</sup>**

- 2.19 These activities include studies and small investments geared toward preventing and mitigating indirect and cumulative negative environmental and social effects, such as chaotic colonization, the emergence of informal logging operations, settlement of protected natural areas, and preventive health care for native communities.
- 2.20 Key activities have been identified to prevent and mitigate the project's indirect and cumulative environmental and social effects where immediate government action is needed. These include the following:<sup>5</sup>
- a. Prepare the definitive management plans for the new Vilcabamba National Park and the Ashaninka and Machiguenga communal reserves. The preliminary management plans for these areas made it possible to classify them. Minor surveillance (ranger stations) and service infrastructure will be built in these new PNAs.<sup>6</sup> Support will be provided to place signs, demarcate the land, set up ranger stations to patrol the forests and control illegal wildlife trafficking, and track the land titling activities within the corridor directly affected by the project.

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<sup>4</sup> The figures include PROPEF-financed activities.

<sup>5</sup> The investments and studies have been pre-identified. Prototype designs are available for the type of constructions needed as ranger stations for the PNAs and for the forestry stations. Preliminary terms of reference are available for the studies.

<sup>6</sup> The process of creating the new PNAs is very well advanced, with INRENA filing a positive report with the Ministry of Agriculture, which will now be forwarded to the Cabinet. Approval is expected by year's end.

- b. Conduct additional studies to pinpoint and properly classify other areas that would be good candidates for the system of protected areas and communal reserves that could be affected by the gas project. These include the Megantoni sanctuary and the Nahua Kugapakori reserve. For long-term consolidation of the areas, inventories and biodiversity studies will be funded that can be used to determine protection classifications or levels, the necessary management plans, demarcation, and control and surveillance activities.
- c. Formulate a land-use plan for the Camisea gas project's area of influence, defined as a corridor running along the axis of the project and crossing the departments of Ayacucho, Apurimac, Huancavelica, Ica, Lima and Cuzco. In the final determination of the project's area of influence, physical, anthropological, social and economic criteria will be taken into account. These criteria will respect the integrity of the perimeter of the protected areas, communal reserves, watersheds, community organizations and development poles like major cities. The plan will serve as a compass to get the maximum returns from sustainable use of existing resources and direct those returns into public and private investments. The plan includes a process involving a territorial diagnostic study, development of a vision and strategy, the land organization proposal, identification of investment programs and projects, and preparation of guidelines and terms of reference.
- d. Conduct a preventive health-care campaign targeting the isolated native communities of Santa Rosa de Serjali (Nahua), Marankiato, Montetoni (Nanti) and possibly others identified during the operation. These activities complement the local health care program that the consortia and the Ministry of Health established by mutual agreement. The focus is on treating the population who live outside the Camisea's direct area of influence and who are considered to be at risk as a result of other extractive activities, like logging. Medical teams from the Ministry of Health will make routine visits providing vaccinations and basic medical care to the vulnerable areas.
- e. Control unauthorized loggers' and settlers' access to the Lower Urubamba. The controls will be established within the area of influence, starting at the Upper Urubamba, and in logging areas currently up for concession. This activity, headed by INRENA, is to deal with the potential for negative synergistic environmental and social effects associated with the gas project and the logging activities.
- f. Prepare concerted integral sustainable development plans for the future fractionation plant's area of influence in the southern part of the country. This activity depends on the final location chosen for the plant.

**C. Cost and financing**

2.21 The program's estimated total cost is the equivalent of US\$7.2 million. The Bank would finance US\$5 million with Ordinary Capital (OC) funds. Table 2.1, Costs per Component, shows the budgets by investment category.

**Table 2.1**  
**Cost per Component (US\$ dollars)**

Investment category	IDB	Local Contribution	Total	%
1. Administration and follow-up	420,000	100,000	520,000	7.2
a) Administrator-Operator Unit	320,000	100,000	420,000	
b) Audit	100,000	0	100,000	
2. Institutional strengthening	2,760,000	1,900,000	4,660,000	64.7
a) Consulting	920,000	0	920,000	
b) Consultation and training workshops	40,000	0	40,000	
c) Laboratory analysis	115,000	0	115,000	
d) Transport, insurance, supplies and provisions	200,000	0	180,000	
e) Equipment	45,000	0	45,000	
f) Preinvestment FODASC	1,340,000	0	1,500,000	
g) Local contribution (OSINERG)	0	1,900,000	1,900,000	
h) Camisea Ombudsman's Office	100,000	0	100,000	
3. Studies and investments	740,000	200,000	940,000	13.1
a) Management plans and minor construction work	220,000	100,000	320,000	
b) Additional studies	100,000	100,000	200,000	
c) Land-use plan	210,000	0	210,000	
d) Forestry control	100,000	0	100,000	
e) Health plan	20,000	0	20,000	
f) Urban land-use studies	90,000	0	90,000	
4. PROPEF	750,000	0	750,000	10.4
<b>S U B T O T A L</b>	<b>4,670,000</b>	<b>2,200,00</b>	<b>6,870,000</b>	<b>95.4</b>
5. No specific allocation – contingencies	280,000	0	280,000	3.9
6. Borrowing costs	50,000	0	50,000	0.7
a) Interest*	0	0	0	
b) Inspection and supervision	50,000	0	50,000	
c) Credit fee*	0	0	0	
<b>T O T A L</b>	<b>5,000,000</b>	<b>2,200,000</b>	<b>7,200,000</b>	
<b>Percentage</b>	<b>70%</b>	<b>30%</b>	<b>100%</b>	

\* The GOP will pay the interest on the loan and the credit fee.

**D. Administration and supervision**

2.22 This investment category (7.2% of the total cost) represents the cost of the program administration unit (PAU) in the MEM and of the external audit contract (US\$100,000). Loan proceeds will be used to cover the cost of the project chief and one administrator. Also included under the administration and supervision category is the financing of program monitoring and the resources to support the annual, midterm and final evaluations.

**E. Direct costs**

2.23 The direct cost associated with the two components is US\$6,350,000 (88.2% of the total cost). The proceeds from the PROPEF finance the startup activities under the administration and supervision, institutional strengthening, and studies and investments components. The program's budget, including PROPEF funds, is itemized below:

- a. Financing of the institutional strengthening programs (US\$3.6 million). The loan will finance US\$1.76 million, to support activities to monitor the Camisea gas project's environmental and social impacts. Of this amount, US\$1.1 million is for contract consulting services and US\$1.4 million will go toward the preinvestment studies on projects that qualify for funding under the Camisea fund. The local contribution is for the incremental cost of OSINERG oversight and inspection, which will go toward covering salaries, transportation, per diem and other recurring costs.
- b. The loan proceeds will finance preparation of the management plans for the new protected natural areas and communal reserves (US\$200,000), construction of small infrastructure works for the area's protection (US\$60,000) and patrolling campaigns (US\$40,000). The local contribution of US\$100,000 corresponds to the INRENA resources used to implement master plans and plans of operation. Another US\$100,000 from the loan proceeds will be used to conduct the additional studies needed to define the category or level of management that the new protected natural areas and communal reserves will require. INRENA will put up US\$100,000 to track and supervise this activity. Other investments covered with the proceeds from the Bank loan include: the land-use plan for the Camisea gas project's area of influence (US\$250,000); forestry control, which includes equipment for rangers and construction of three ranger stations (US\$100,000); support to health campaigns (US\$50,000) for an annual vaccination and medical treatment campaign for isolated groups; and preparation of a plan for integral sustainable development of the area of influence of the future fractionation plant (US\$60,000).
- c. PROPEF funds (US\$750,000) will be used to finance: (i) the PAU (US\$100,000); (ii) institutional strengthening (US\$500,000), broken down as

follows: (a) consulting contracts (US\$180,000); (b) consultation and training workshops (US\$60,000); (c) laboratory analysis (US\$35,000); (d) transportation and supplies (US\$50,000); (e) equipment (US\$115,000); and (f) financing of preinvestment projects (US\$60,000); and (iii) studies and investments (US\$150,000), broken down as follows: (a) PNA management plans (US\$80,000); (b) land-use plan (US\$40,000); and (c) health plan (US\$30,000).

### III. PROGRAM EXECUTION

#### A. Scheme of execution

- 3.1 The executing agency of the program will be the Ministry of Energy and Mines, by way of the GTCI Camisea Office. Created especially to perform this specific function, the GTCI Camisea Office is under the MEM's Deputy Minister of Energy. The GTCI Camisea Office is the program administration unit (PAU) and will have technical, administrative and financial autonomy.
- 3.2 The main functions of the GTCI Camisea Office will be to: (i) perform any contracting and tendering that the program requires; (ii) serve as technical supervisor of the program's activities; (iii) keep the proper accounting, financial and internal records systems to manage the resources; (iv) organize the accounting system so that it provides the documentation necessary to verify transactions and makes it easier to get the program's financial statements ready on time; (v) prepare and submit the disbursement requests, the justification of the use of the loan proceeds, and the semi-annual reports on the use of the Revolving Fund, by combining the information from the coexecuting agencies; (vi) make certain that a proper file is kept of the documentation submitted to support disbursement requests; and (vii) prepare and submit the program's financial statements.
- 3.3 The PAU will also: (i) certify and review the services provided and/or delivery of the goods or construction works and authorization of payment; (ii) keep specific, separate bank accounts to be used exclusively for resources from the Bank and the local counterpart; (iii) give the Bank personnel and external auditors authorization to access the accounting and financial records and the documentation supporting program-eligible expenditures; (iv) prepare the disbursement requests and process them with the Bank; and (v) take the measures necessary for the contractual clauses to be observed.
- 3.4 The disbursements will be made through a revolving fund for 5% of the loan amount. **Within 60 days after the close of each calendar six-month period, the GTCI Camisea Office will present semi-annual reports to the Bank on the situation of the revolving fund it controls.** During program execution, the normal ex ante method will be used to review the supporting documentation for procurements and contracting of goods and services and the disbursement requests.
- 3.5 The PAU is composed of a director, a specialist in geographic information systems (GIS), a technical assistant, a public relations officer and an accountant. MEM staff will provide the PAU with technical and administrative support. It is proposed that proceeds from the Bank loan be used to finance the PAU's five principal positions. The PAU will also receive assistance in the form of short-term consulting services tailored to its specific needs and for a period not to exceed 12 consultant/months.

The GTCI Camisea Office has in fact been functioning as part of the MEM since May 2002, staffed with the director and technical assistant. These two persons were selected on the basis of the professional profile agreed upon with the project team and by a selection process conducted in accordance with local law, which is acceptable to the Bank. The solid professional performance of these two officials will lend continuity to the work of the GTCI Camisea Office. Under rule GS-404, Continuation of Services, at the executing agency's request it is proposed that the director and technical assistant continue to perform these functions. **The formal creation of the GTCI Camisea Office in the MEM and the formal appointment of the project's Director are conditions precedent to the first disbursement of the loan proceeds.**

## **B. Execution of the program's components**

- 3.6 The Director of GTCI Camisea Office is appointed by and reports directly to the Minister of Energy and Mines. This Director will preside over the Camisea Inter-institutional Technical Coordination Group, consisting of 12 participating agencies. The Director will propose rules dictating the procedures by which the GTCI Camisea Office and the member institutions of the GTCI Camisea will operate, rules that authorities in the sector will approve. The Bank has reviewed the draft internal regulations and found them to be satisfactory. They are at a very advanced stage, awaiting immediate approval once the agreement to create the GTCI Camisea Office is formalized. **Approval of the Internal Operating Regulations of the GTCI Camisea Office is a condition precedent to the first disbursement.**
- 3.7 For purposes of this loan operation and for the sake of a streamlined and efficient framework, the GTCI Camisea Office will contract the necessary consulting services planned under the operation, in accordance with the terms of reference agreed upon with the Bank. It will always coordinate with the institution requesting consulting services and, with it, iron out any details that may need to be settled. Working in close coordination with those institutions, the GTCI Camisea Office will monitor and evaluate the consultants' performance and approve the corresponding payments. The same procedure will be followed for procurement.
- 3.8 As indicated in chapter II, the institutional strengthening component and the studies and priority investments component were established up front. The only exception is the subcomponent involving preinvestment studies for FODASC-eligible projects, where the eligibility criteria already cleared with the Bank will be applied. The program has a plan of execution which, as noted in paragraph 3.17, will be reviewed and adjusted six months after the signing date of the loan contract.

### **1. Institutional strengthening component**

- 3.9 Specialized consultants will be contracted to provide the institutional support. The Bank has reviewed the terms of reference for those contracts and found them

satisfactory. The consulting services involve the following: (i) 26 consultant-months (10 consultants on short-term contracts); (ii) 140 consultant-months (7 consultants on long-term contracts); 40 technological consultant-months (two for 20 months each); and (iii) two consultants (25 consultant-months) to support the CONAM. In addition, plans are to earmark US\$100,000 to contract consulting services identified during execution. The consultants will be contracted according to a work program approved by the participating agencies and reviewed by the Bank. Draft terms of reference are available for all the planned consulting services.

- 3.10 The Bank has reviewed and cleared the eligibility criteria for the preinvestment funds. Part of FODASC's job will be to publicize its existence among communities and groups and to equip those communities and groups with the capacities they will need to be effective and efficient project managers. Furthermore, a project must show that stakeholders are participating in the entire project process, that its cost structure is adequate and, if possible, that it is innovative. The principal eligibility criteria include the following: (i) selection of stakeholders based on family-income level, the stakeholders' presence within the project's area of influence, their need for a better quality of life, the presence of a community organization that supports the project, and the community's involvement in the project's activities; and (ii) economic, environmental, and social development projects that: (a) demonstrate a market potential; (b) demonstrate that the local actors have organizational capacity and experience; (c) are consistent with the environmental management plan; d) can be replicated; e) involve a local contribution and have the backing of a grassroots organization, local and/or regional public institution; and f) demonstrate their economic, environmental and social feasibility. **Approval and implementation of the selection criteria for the preinvestment funds is a condition precedent to the first disbursement of the loan proceeds.**

## **2. Studies and priority activities component**

- 3.11 The new PNAs -Vilcabamba National Park and the Ashaninka and Machiguenga communal reserves- are being created as execution gets underway. A consulting firm will be hired to conduct the studies of the master plans for the Vilcabamba National Park and the communal reserves, and will work in coordination with the INRENA. These studies will be based on the existing preliminary management plans and the terms of reference reviewed and agreed upon with the Bank. **Creation, by executive order, of the Vilcabamba National Park and the Ashaninka and Machiguenga communal reserves are conditions precedent to first disbursement of loan proceeds.**
- 3.12 The final management plans will determine which future investments and activities can best guarantee the long-term operation of these new PNAs. These activities would be eligible for FODASC financing; additional contributions are expected to come from the consortia and the INRENA budget to cover recurrent costs. By the end of the second year of the program, and as part of the annual evaluation for that

year, the Government of Peru will submit to the Bank the financing plans for the respective management plans.

- 3.13 The ranger stations will be built according to INRENA's prototype design for forest stations. The GTCI Camisea Office will procure the equipment for the park rangers.
- 3.14 The land-use plan will be contracted with INADE, while the vaccination campaigns will be contracted with the Ministry of Health. The Bank has reviewed the scope of these undertakings and found them to be satisfactory. Performance contracts will be used to carry out this component. Executive Order No. 012-2001-PCM (Single Text of the State Contracting and Procurement Law, Law 26850) authorizes the use of this type of contract when the work involved is between State agencies. **The signing of the performance contracts with INRENA and INADE is a condition precedent to disbursing the loan proceeds intended for each activity.**

### **3. Monitoring and evaluation**

- 3.15 The monitoring system is multi-layered, consisting of the information received at regular intervals from the concessionaires, from the community monitors and from the OSINERG. With these reports, the program's impacts, processes and activities can all be monitored and evaluated. Enlarging on and supplementing that information will be the field-inspection reports that the agencies in the GTCI Camisea prepare. The GTCI Camisea Office will process and analyze the information, which will have three main purposes: (i) to add more documentation for the program's inspection (an OSINERG responsibility); (ii) to add to the MEM sector database; and (iii) to inform the general public, and particularly the communities within the program's area of influence. The GTCI Camisea Office will set up a dynamic Web page to report that information. Program participants will be able to access the Web page online over the Internet.
- 3.16 The GTCI Office will be in charge of implementing the monitoring system and information flow. The system will: (i) track the accomplishment of the goals set for the program activities, comparing what has been accomplished to the annual plans or the plans for specific periods; (ii) compile accurate, timely and user-friendly information from the program actors; (iii) process and confirm data for purposes of decision-making; (iv) produce reports on program execution; (v) examine problems and take action to correct them; and (vi) establish how responsive and involved the community is in the programs.
- 3.17 The work program of the GTCI Camisea Office and OSINERG has to be reviewed and adjusted periodically, especially during the first months of construction, owing to a number of factors: (i) the system's design, which features a feed-back system to make monitoring and reporting more efficient; (ii) the diverse geography and social conditions in the areas through which the construction work will pass (rainforest, mountain and coast); (iii) revisions of the environmental management plans as a

- result of the environmental and social analysis of project PE-0222; and (iv) additional supervision and monitoring needed on construction work whose design will not be completed until the final location of certain works (the fractionation plant and port terminal, for example) has been decided. Six months after the signing of the loan contract, the work plan will be reviewed in order to adjust the supervision and monitoring program once the environmental and social analysis of project PE-0222 and a final proposal for the location of the fractionation plant and the port terminal for gas exportation are available.
- 3.18 The Government of Peru indicated that it would not conduct an ex post evaluation of the program. However, during execution, the Bank—with the project team's participation—and the executing agency will do annual evaluations. A final evaluation will also be done for which independent consulting services will be contracted. The Bank will finance the contracting of the consulting services to ensure their independence. The annual and final evaluations will review the extent to which program goals and objectives are being achieved, using as a reference the baseline in the projects' EIA and evaluating the progress made toward the final development objectives. **Review and adjustment of the general work program six months after the signing of the loan contract and the annual program evaluations figure among the terms and conditions of the loan contract.**
- 3.19 The findings of the analysis of the land-use plan, which will be done when execution begins, will be added to the baseline. This baseline will be used to measure the impact of the projects that the FODASC would fund. With annual evaluations, necessary corrective measures can be taken to ensure that the goals and objectives are achieved. The evaluations will check the progress made on the indicators in the Logical Framework (see Annex III-1), with the emphasis on: (i) implementation of EIA recommendations; (ii) fulfillment of the environmental management plans; (iii) fulfillment of the social management plans; (iv) the consortia's adherence to international environmental practices; (v) the participation of the community monitors; (vi) the efficacy of the training programs; (vii) the quality and timing of the information, and (viii) the number and quality of the preinvestment studies conducted and the percentage of projects that received financing. The first year's evaluation will review the results of the consulting services for CONAM's institutional strengthening and an agreement will be reached with the Government of Peru on mechanisms that will make it possible to put the lessons learned about the Camisea project's environmental and social management to good use in the country's other mega-projects.
- 4. Execution timetable and investment calendar**
- 3.20 The program will be carried out over a period of three years; the disbursement period will be 3.5 years. The following is a summary of the program's investment calendar (Table 3.1).

**Table 3.1**  
**Investment calendar**  
**(Cost in thousands of U.S. dollars)**

<b>Fund</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
IDB-OC	1,500	2,700	800	5,000
Local	800	1,000	400	2,200
<b>Total</b>	<b>2,300</b>	<b>3,700</b>	<b>1,200</b>	<b>7,200</b>
%	32	51	17	100

## **5. Procurement of goods and services and tendering schedule**

- 3.21 The procurement of goods and services and the contracting of works will be done in accordance with the procedures established in Annex B of the Loan Contract. Tenders for works and/or supplies have been grouped into packages. International competitive bidding will be required for procurement of goods and services exceeding US\$350,000. The program does not involve construction works requiring international competitive bidding (works exceeding US\$2 million). Tendering for lesser amounts will be done in accordance with local law. Consulting services will be engaged in accordance with Bank procedures. The tendering schedule and the estimated amounts of each tendering appear in Annex III-2: Tentative Tendering Schedule for the Program.
- 3.22 The selection or contracting (merit-based competition) procedures set forth in Annex C need not be followed when the contracts are for thirty thousand dollars (US\$30,000) or less. In such cases, the executing agency may select and engage the consulting services directly, and will submit the following to the Bank for clearance: (i) the terms of reference, specifications, and timetable for the services that are to be provided; (ii) the name of the expert or consulting firm selected, specifying nationality and domicile, record and professional experience; and iii) the type of contract that will be used.

## **6. Accounting and audit**

- 3.23 The executing agency will present annual reports on the program to the Bank, within 60 days after the close of the fiscal year, for the duration of the program execution period. Likewise, the annual external audit of the financial statements will be done by a firm of independent auditors acceptable to the Bank, selected in accordance with the procedures established in Bidding Document AF-200, and on the basis of the terms of reference previously approved by the Bank (document AF-400).
- 3.24 The annual audit reports will be submitted within 120 days after the close of the fiscal year. Audit costs will be considered part of the program cost and will be

covered by the Bank loan. The independent audit firm will be contracted for the duration of program execution, subject to the Bank's nonobjection.

**C. Advance of funds and recognition of expenditures**

- 3.25 The program requires a considerable infusion of capital to immediately upgrade the capacity to supervise and monitor the Camisea Gas Project's construction work. The Bank agreed with the Government of Peru on the use of the Project Preparation and Execution Facility to cover this critical need. The approval of the Camisea MAPPE is subject to establishment of the new PROPEF line of credit for Peru (PE-0237), which is now in its final phase of processing with the Bank's Board of Executive Directors. Approval is expected by November 6, 2002. The Camisea MAPPE would be approved immediately, to give the government rapid access to these funds. Swift processing of the Camisea PROPEF would have an enormous effect on how quickly the government is able to bolster the effort already underway.
- 3.26 The PROPEF operation for Camisea (PE-0237) is for US\$750,000. It would finance some preinvestment studies and support the program's startup activities. The first disbursement of the loan should include the amount spent from the PROPEF loan, up to a total of US\$750,000. The MEM has requested reimbursement of US\$200,000, charged against the loan. These expenses represent the salaries of the newly hired personnel to run the Camisea GTCI Office—on the job since May 1, 2002—and additional consultants for program startup. The clauses concerning recognition of expenses will be included in the PROPEF. Similarly, recognition of a local contribution of US\$500,000 has been requested, which represents the cost of the additional OSINERG staff assigned to inspect the Camisea project. That expense will be recognized under the present operation.

**D. Operation and maintenance (O&M)**

- 3.27 The vast majority of the institutional strengthening activities and studies do not involve works that would require O&M commitments. The PNA and forest patrolling activities will require O&M for the small buildings and equipment involved in the control and surveillance program. INRENA is to submit a report on the status of the O&M of the buildings and on the status of conservation of the systems. That report will be submitted annually to the Bank for five years following completion of construction and startup of the works, within the first quarter of each year.

## IV. PROJECT FEASIBILITY

- 4.1 Preparation of the project took advantage of the environmental due diligence process that a large, interdepartmental Bank team is conducting on the Camisea Gas Pipeline Project (PE-0222). This coordinated effort has made it possible to better integrate the consortia's environmental monitoring and auditing responsibilities with those of the Government of Peru. The joint work of the two project teams has been well received in Peru, with the result that new and better working relations have been established between the businesses and the government. The quality and the transparency of the affected population's participation -and that of civil society in general- are appreciably improved.
- 4.2 As described in Chapter I, at the request of the consortia, the environmental and social impact studies were prepared by local and international firms of recognized standing. The government approved those studies. The EIA include environmental and social management plans that spell out the consortia's duties as regards mitigation, attenuation and compensation of any negative impacts. These activities are part of the contractual commitments undertaken by the consortia, which have earmarked funds to carry them out in a timely fashion. The State's role is one of oversight, to ensure that the commitments are honored to the letter. In addition to the commitments established by contract is a positive predisposition to contribute additional funds to finance economic, environmental and social development projects in the project's area of influence. The creation of FODASC would guarantee sustainable economic and social development in the Camisea gas project's corridor of influence.
  - A. **Technical feasibility**
- 4.3 The project is a response to an urgent need to improve the social and environmental management capacity of the hydrocarbons sector, which has been stretched to the limit by the Camisea gas project, one of the largest and most complex construction projects ever undertaken in Peru. The challenge of the gas project is to bring it to a positive conclusion, inflicting as little damage upon the environment as possible and respecting the rights of the various native and campesino groups who live in the project's area of influence. Particular attention must be given to the indirect and cumulative impacts that will result if the areas become accessible to settlers, people who tap local natural resources, and other unauthorized groups. Vulnerable groups like the native communities will require special and distinct protective measures.
- 4.4 A concerted effort involving the concessionaires and the various government agencies is proposed to address these issues. The program institutionalizes mechanisms and procedures to improve the concessionaires' compliance with the EMP; it improves the consultations with and participation of affected communities,

and sets up a monitoring system and a transparent and easily accessible flow of information.

- 4.5 As this program will improve environmental and social management performance, its benefits will be about the effectiveness of the measures in achieving the expected results, the sustainability of environmental protection in the long term, and improving the quality of life in the project's area of influence. In short, the program will: (i) use different measures to address the needs of vulnerable groups; (ii) assist in clearing land titles in the project's area of influence; (iii) prevent unauthorized access by settlers and others who tap local natural resources, thereby reducing the potential for deforestation and the harm to the biodiversity caused by gas operations, while protecting sensitive areas and critical habitats; (iv) improve the mechanisms for protecting and managing protected areas and communal reserves; and (v) improve the capacity to coordinate and manage the socio-environmental aspects, within a framework of broad participation.
- 4.6 The key players in the region were consulted about the measures proposed in the EIAs. Direct consultations and workshops enabled participation by the social actors—native communities, organized labor, producers associations, the NGOs, local governments, donor agencies and Peruvian government authorities—and helped focus attention on and prioritize relevant problems and develop ways of working in partnership with the affected population and civil society.
- 4.7 The creation and consolidation of protected natural areas and communal reserves helps to keep the indigenous territories intact and preserve the resources within them. Of these activities, the support for regularization of land tenure will make possible the formal recognition of land ownership, which is essential if the local populations are to stay engaged in sustainable productive activities. This is a concerted effort, carried out with the proceeds of PETT-executed loan 1340/OC-PE and with financial contributions from the TGP consortium.
- 4.8 Consulting services will be contracted to perform most of the activities herein proposed. Peru's local consultants have extensive experience, having worked on other projects in sectors like hydrocarbons, mining, highways, irrigation, electric power plants, to name just a few. The contracting process will make it possible to find capable consultants to hire and take maximum advantage of the local capacity. International consultants will address the more specialized issues. Similar projects conducted in Bolivia, Brazil and Argentina have given the region a considerable pool of experience to draw upon.
- 4.9 The minor construction works proposed are simple (ranger and forest-surveillance stations). Prototype designs are available that are suited to the Urubamba area's rainforest environment. INRENA has ample experience building and operating works of this type.

4.10 The financing of preinvestment studies is supported by activities that started more than ten years ago, during SHELL's first prospecting efforts. The communities of the Upper and Lower Urubamba have proposed a sustainable development plan, wherein they identify priority projects costing a total of US\$6 million. The Bank team reviewed the preliminary list, and found that sufficient elements are there to start preparing the projects' feasibility studies. These studies figure among the activities slated for the first year of execution.

**B. Institutional feasibility**

4.11 The MEM established the GTCI Camisea Office precisely in order to coordinate with the government agencies, other public entities, local governments and the concessionaires, concerning the activities for supervising and monitoring the Camisea Gas Project's environmental and social impacts. From the organizational standpoint, the GTCI Camisea Office has the political and technical support necessary to carry out its responsibilities. The Office will be officially created by an executive order according to the technical, administrative and financial autonomy that will facilitate its work.

4.12 The government agencies and institutions took active part in preparing the work program coordinated by the GTCI Camisea Office. In each case, the agency and the Office worked together to determine what needed to be done to enhance the existing capacity so that the agency in question would be able to perform its role in supervising the gas project. The agencies have responded very favorably, and the cooperative venture is already underway with inter-agency field inspections. In any event, these activities are the participating agencies' institutional mission. The project will add the resources needed to accomplish that mission.

4.13 For many of the responsible agencies, the supervision and monitoring activities will require a response capability well beyond their present means. The specialized consultants and personnel to be hired and the equipment and logistical support proposed to support the implementation of the planned activities, will help ensure that the government's work is both effective and timely.

4.14 All the activities are carried out under performance contracts, which have proven to be very efficient instruments for work between public sector agencies. The drafts of the contracts detailing responsibilities have already been prepared and are part of the project plan of operations agreed upon with the Peruvian government.

4.15 Because of the Camisea gas project, the communities and civil society organizations are keenly interested in effective implementation of environmental and social impact mitigation and control. This situation has already awakened concern at the international level, which will be an added inducement to the institutions to discharge their mandate and honor their commitments.

**C. Financial viability of the counterpart contribution and recurrent costs**

- 4.16 The local contribution will come from the budget of the MEM, OSINERG and from INRENA. OSINERG has already been assigned an additional budget of US\$2 million over the next three years, to perform its inspection function. The contributions from the MEM and from INRENA are smaller and will not have an impact on the two agencies' budgets. The US\$2.2 million that is the local counterpart should not pose a problem for the Government of Peru. Only the INRENA's control and surveillance activities will demand recurring outlays, estimated at US\$80,000 annually. INRENA's budget will cover these costs. OSINERG will continue to cover the cost of the inspection work during the operational phase. It has resources from a special appropriation from the royalty stipulated in the gas concession contract.

**D. The program's risks**

- 4.17 **Risk:** The concessionaires have already made considerable progress on the ground. The risk is that there will be no government supervision and inspection mechanism that can keep pace with the construction work. **Mitigating factor:** The government has already earmarked an additional appropriation for OSINERG, and a major institutional effort is being made to overcome the technical and budgetary limitations until the proceeds from this operation become available.
- 4.18 **Risk:** Institutional coordination is complicated, as national, regional and local agencies having overlapping functions. The magnitude of the program and the diverse areas that it crosses magnify the problem. **Mitigating factor:** Creation of the coordination mechanism in the form of the GTCI Camisea Office, consultation workshops and the training programs. The operation also supports inter-sectoral activities in which CONAM, the central environmental policy agency, will participate.
- 4.19 **Risk:** Some parts of the construction work planned under the Camisea gas project have not yet been finalized, such as the fractionation plant and the port terminal. Furthermore, the environmental and social management plans are still under review as part of Camisea gas project's environmental analysis. The supervision and monitoring by both the concessionaires and the government will be adjusted once these matters have been settled. **Mitigating factor:** The design of the institutional strengthening program is flexible and measures are being introduced to make adjustments possible. As part of the Bank's follow-up, six months after the date on which the loan contract is signed a mission will be conducted to adjust the work program. Annual evaluations are also planned.

**PROGRAM FOR INSTITUTIONAL STRENGTHENING AND ENVIRONMENTAL AND SOCIAL MANAGEMENT SUPPORT  
FOR THE CAMISEA GAS PROJECT (PE-0233)**

**LOGICAL FRAMEWORK**

Narrative Summary	Indicators	Means of Verification	Major Assumptions
<b>A. Goal</b>			
1. Support institutional environmental management, while helping to avert or reduce the kinds of negative environmental and social impacts that major infrastructure projects can cause.	1.1 Environmental and social monitoring activities begin at the same time as construction of works under future projects gets underway.	1.1 CONAM reports	1.1 A political resolve to apply the lessons learned.
<b>B. Purpose</b>			
1. Strengthen the GOP's capacity to supervise, monitor and inspect the Camisea project's social and environmental impacts, including its indirect impacts.	1.1 Direct impacts on ecosystems, like erosion, deforestation and loss of biodiversity all fall into the category of what the EIAs report.	1.1 (i) EIA baseline; ii) GTCI reports; (iii) Evaluation of the EIA; (iv) the law, El Peruano; and (v) INRENA annual report .	1.1 The GOP's political willingness to attach equal importance to the economic benefits of the Camisea Project, prevention of negative environmental and social impacts, and the development of the project's area of influence.
	1.2 The increase in migration rates among settlers, loggers and squatters remains where it was or is lower than it was the year the project started (2002).	1.2 See 1.1above	1.2 Application of the EIA by the consortia, in accordance with the law.
2. Provide support to form the technical, administrative and financial support mechanisms to finance economic and social development in the Camisea project's area of influence.	2.1 80% of the projects secure financing.	2.1 Camisea Fund Reports.	2.1 The Fund's capacity to steadily replenish itself in a stable and predictable manner.
	2.2 Index of unmet basic needs drops 2% annually within the Camisea project's area of influence.	2.2 Poverty map of Peru.	2.2 Sufficient economic, political, and qualified human resources

Narrative Summary	Indicators	Means of Verification	Major Assumptions
<b>C. Components</b>			
<p>1. <u>Institutional strengthening</u></p> <p>1a. Technical assistance and equipment of the GTCI-Camisea agencies.</p> <p>1b. Design and creation of the Camisea environmental and social development fund and financing of preinvestment studies.</p>	<p>1a.1 Establishment and effective operation of the GTCI starting November 2002; GTCI regulations approved; GTCI web page on line (12-2002); work programs approved and set in motion (12-2002).</p> <p>1a.2 Number of field inspections conducted by the agencies of the GTCI Camisea stabilizes at two per month.</p> <p>1a.3 At least 5 OSINERG inspectors always in the field</p> <p>1a.4 80% of the community monitors file monthly reports on the monitoring results; starting in November 2002.</p> <p>1b.1 20 preinvestment studies done in 2003; 30 studies in 2004, and 30 studies in 2005.</p>	<p>1a.1 Surveys, reports, GTCI Camisea monitoring program.</p> <p>1a.2 GTCI Camisea reports.</p> <p>1a.3 OSINERG reports</p> <p>1a.4 GTCI Camisea reports.</p> <p>1b.1 Camisea Fund reports</p>	<p>1a.1 GOP adheres to priorities in the allocation of funds.</p> <p>1a.2 The social situation makes it possible to conduct fieldwork.</p> <p>1a.3 See 1a.2 above</p> <p>1a.4 See 1a.2 above</p> <p>1b.1 (i) The Fund is set up and capitalized; and ii) a project-preparation capability is cultivated.</p>
<p>2. <u>Investments in environmental and social control and protection</u></p> <p>2a. Classification, definition, and management of the protected areas and indigenous-community reserves.</p>	<p>2a.1 Legal provisions enacted creating the Vilcabamba National Park and the communal reserves. NPA management plans approved and set in motion (January 2003)</p> <p>2a.2 4 communal reserves consolidated. December 2004.</p>	<p>2a.1 INRENA reports</p> <p>2a.2 See 2a.1 above</p>	

<b>Narrative Summary</b>		<b>Indicators</b>		<b>Means of Verification</b>		<b>Major Assumptions</b>	
2b.	Formulation of the land-use plan for the Camisea project's area of influence.	2b.1	The land-use plan aligns regional and local governments. December 2004.	2b.1	i) Review—regional and local governments; and ii) INADE reports		
2c.	Preventive health care campaign in indigenous communities.	2c.1	An annual vaccination campaign.	2c.1	DIGESA reports, MINSA reports.		
2d.	Patrolling for illegal logging and unauthorized colonization.	2d.1	5 park rangers permanently posted	2d.1	INRENA reports.	2d.1	Neutralization of the political and social pressure from the settlers and loggers.

**PROGRAM FOR INSTITUTIONAL STRENGTHENING AND ENVIRONMENTAL AND SOCIAL MANAGEMENT SUPPORT  
FOR THE CAMISEA GAS PROJECT (PE-0233)**

**TENTATIVE TENDERING SCHEDULE**

The program's principal areas of procurement	Lots	Financing		Method	Pre-qualification	Cost	Date of publication (quarter/year)
		IDB	Local				
<b>A. Goods and services</b>							
1. Office equipment, computer systems, specialized equipment, software.	4	100	0	LCP	NO	160,000	I/03
2. Vehicles and launches	2	100	0	ICB	NO	50,000	I/03
3. Aerial photography	1	100	0	LCP	NO	40,000	I/03
4. Surveillance and control equipment	SEVERAL	100	0	LCP	NO	20,000	I/03
5. Workshops	SEVERAL	100	0	LCP	NO	100,000	SEVERAL
6. Laboratory analysis	SEVERAL	100	0	LCP	YES	150,000	I/03
<b>B. Consulting services</b>							
1. Audit	1	100	0	LCP	YES	100,000	I/03
2. Firm for NPA management plans	2	100	0	LCP	YES	350,000	I/03
3. Individual consultants (240 consultant-months)	SEVERAL	100	0	LCP	YES	1,040,000	SEVERAL
4. Preinvestment studies	SEVERAL	100	0	LCP	YES	1,400,000	I/03
5. Technology consultant (40 consultant-months)	2	100	0	LCP	YES	60,000	I/03
6. Consultants, Land use plan (40 consultant-months)	SEVERAL	100	0	LCP	YES	120,000	I/03
7. Consulting services for development plans	1	100	0	LCP	YES	90,000	I/03
<b>C. Small construction works</b>							
1. Ranger stations	2	100	0	LCP	NO	60,000	I/03

ICB International competitive bidding  
 LCB Local competitive bidding  
 CPI International call for proposals  
 LCP Local call for proposals