

PROGRAM TO SUPPORT THE NATIONAL ENVIRONMENTAL SYSTEM

(PR-0116)

EXECUTIVE SUMMARY

Borrower:	Republic of Paraguay	
Executing agency:	Environmental Secretariat	
Amount and source:	IDB (OC):	US\$8 million
	Local:	US\$2 million
	Total:	US\$10 million
Financial terms and conditions:	Amortization period:	20 years
	Grace period:	4 years
	Disbursement period:	4 years
	Interest rate:	variable
	Inspection and supervision:	1.00%
	Credit fee:	0.75%
	Currency:	Basket of Currencies
Objectives:	<p>The overall objective of the program is to support implementation of a modern institutional framework for managing Paraguay's environment. Its specific objectives are to: (i) coordinate the mechanisms used to formulate environmental policy and enact laws and regulations governing the environment; (ii) improve the ability of the country's institutions to implement and enforce the laws, policies and regulations governing the environment; and (iii) develop mechanisms for sustainable financing of projects and other activities to support the environmental objectives of the country.</p> <p>In order to fulfill its objectives, the program proposes to achieve the following goals by the end of the execution period: (i) 100% of the resolutions passed by the CONAM are being used in strategic planning, control and management of the environment; (ii) 30% of the country's departments are engaged in environmental management programs; (iii) environmental impact assessments are being carried out for 80% of sector projects, and the waiting period for analysis and granting of project licenses has been cut by 50%; (iv) updated data on EIAs, environmental permits, public hearings, the registry of industrial polluters, endangered species list, deforestation indices and quality of natural resources is available to the public over the Internet</p>	

(via the SEAM web site); and (v) a sustainable mechanism for funding environmental investments is in operation, with resources contributed from various sources and the financing of 10 pilot projects.

Description: The program will have three components: (i) establishment of the National Environmental System; (ii) strengthening of environmental agencies; and (iii) the Environmental Investment Fund.

1. Establishment of the National Environmental System (US\$1,669,000)

This component will support integration of public agencies and private sector organizations into the new National Environmental System (SISNAM), which will be responsible for implementing environmental policy in a manner that ensures joint cooperation and harmony among its members, and an organized approach to solving the country's environmental problems. The component calls for execution of the following four subcomponents: (a) establishment of the National Environmental Council; (b) creation of the legal framework for the environmental sector; (c) implementation of the national environmental information system; and (d) environmental education.

2. Strengthening of environmental agencies (US\$4,534,000)

This component will provide institutional strengthening for the environmental organizations that make up the SISNAM, providing them with the technical capacity needed to carry out their environmental control functions, and to work efficiently and effectively for conservation and preservation of biodiversity. The component is divided into three subcomponents: (a) creation and strengthening of the Environmental Secretariat; (b) strengthening of the environmental organization in each sector; and (c) strengthening of departmental and municipal governments.

3. Environmental Investment Fund (US\$1,477,000)

This component will include the design of a fund for financing of high priority investments in environmental control and management and preservation of biodiversity, which will accept contributions from both public and private sector sources.

Role of the project in the Bank's country and sector strategy:

The proposed operation is consistent with the strategy for modernizing the State since it will support restructuring of the institutions in the environmental sector. The program will make for more efficient and effective application of existing environmental legislation and contribute to development of new environmental laws and relevant regulations, establishment of environmental controls and monitoring mechanisms, formulation of a national environmental policy, and diversification of mechanisms for environmental investment. This operation will help strengthen governability in Paraguay by bringing together the functions of environmental policy formulation and enforcement in a single institution at a high level of government, eliminating duplication and overlapping of functions among agencies, ensuring that the new institution targets problems at the national level, and strengthening local environmental control agencies.

Environmental and social review:

The program is expected to produce the following positive environmental and social impact: (i) reduction in direct adverse impact produced by specific projects through better application of EIAs; (ii) reduction in the indirect impact of development through improved environmental planning and the establishment of the CONAM as a forum for discussion and resolution of conflicts between the national environmental strategy and other policies, plans and economic programs of the government; and (iii) contribution to conservation of Paraguay's natural resource capital as one of the main pillars of sustainable economic development.

Benefits:

The program will produce social benefits in terms of improved governance. Civil society's input will be increased at the macro level through its participation in the discussion and formulation of environmental policies and strategies in CONAM. The program will produce social benefits in the form of governability, environmental management and natural resource management. Civil society will provide more input at the macro level through its participation in the discussion and formulation of environmental policies and strategies in CONAM. Specifically, the program will expand the capacity of institutions to deal with indigenous problems related to natural resources and the negative impact of development programs, and to find realistic solutions to these problems. The participation of civil society at the micro (project) level will improve thanks to greater access to information on projects in preparation and in execution. The ability of civil society to participate effectively will increase as a result of greater awareness of the need for sustainable use of natural resources and recognition of the SISNAM as an instrument for dealing with environmental needs. Participation by the program's beneficiaries in efforts to solve local environmental problems will increase as a result of the pilot projects to be financed, as well as

through the establishment of an Environmental Fund to finance additional environmental projects over longer periods.

Risks:

The main risk involved in implementing this project is the potential weakness of institutions making up the SEAM, which has only recently been created. Such weakness may take the form of:

Lack of eligibility criteria for participation of the private sector and civil society in CONAM. **Mitigation:** presentation of a resolution to establish such conditions will be a condition precedent to the first disbursement of the loan.

Lack of continuity in program startup. **Mitigation:** a Project Preparation Facility (PPF) has been arranged to ensure that the PEU activities will continue until the executing agency is able to meet the conditions precedent to the first disbursement and the resources of the loan become available.

Deficiencies in the recruitment of human resources and SEAM's unsustainability. **Mitigation:** a plan of action has been drawn up and lists the steps to be taken for selection of personnel by means of merit-based competition, including the provision of a training/retraining program to help existing personnel maximize their chances of becoming part of the new structure.

Special contractual clauses:

Conditions precedent to the first disbursement:

- (i) evidence that the eligibility conditions have been established for the participation of representatives of the various institutions in CONAM (paragraph 4.17);
- (ii) evidence that the PEU has been transferred from the General Secretariat of the Office of the President (SGP) to the SEAM and staffed with the necessary personnel, and that it has established an adequate financial control system (paragraph 3.3); and
- (iii) submission of an annual work plan (AWP) for the first year, which must include an evaluation of progress under the Plan of Action (paragraph 3.41).

Other contractual conditions:

- (i) prior to disbursement of resources to finance pilot projects under the Environmental Investment Fund, evidence that the Operating Regulations of the fund have entered into force (paragraph 3.33);

- (ii) submission of the AWP's (paragraph 3.41);
- (iii) prior to publication of the bidding documents for the procurement of consulting services for the second year of program execution, evidence that at least 40% of the personnel who will occupy technical and administrative positions with the SEAM in accordance with the Plan of Action, have been hired and/or assigned through merit-based competitive examinations (paragraph 3.10).
- (iv) submission of semiannual reports on the incorporation of personnel into the SEAM (paragraph 3.42)
- (v) submission of the mid-term report (paragraph 3.43)

Poverty-targeting and social sector classification:

This program does not qualify as a social equity enhancing operation, as described in the key objectives for the Bank's activities set forth in the Report on the Eighth General Increase in Resources (document AB-1704).

Exceptions to Bank policy:

None.

Procurement:

Current Bank policy will be followed for the procurement of goods and consulting services to be financed with program resources. Whenever resources from the Bank loan are used, international publicity will be required for the procurement of goods valued at US\$250,000 or more, consulting services valued in excess of US\$200,000, and construction contracts equal to or greater than US\$2 million. The Bank will conduct an ex ante evaluation of all procurement procedures followed in this program.

I. FRAME OF REFERENCE

A. Status and environmental problems facing Paraguay

- 1.1 Paraguay is a preeminently agricultural country with an economy based squarely on the exploitation and management of the country's natural resources. The current urban expansion the country is undergoing, combined with its lack of mechanisms to control the adverse effects of development programs on the environment, is threatening the country's resource base. As explained below, the environmental problems detected to date are on the increase and will continue to worsen, largely due to the absence of an effective legal and institutional framework within the environmental sector.
- 1.2 Paraguay consists of two large and highly differentiated regions. West of the Paraguay River is the Chaco plain, part of the vast Chaco-Pampas flatlands and one of the most important regions of South America in terms of environmental conservation. Also known as the Western Region, this area has limited rainfall and large areas of desert. East of the river is the Oriental Region which has a more varied landscape with plains and low hills separated by valleys, abundant water resources including surface and groundwater sources, a broad variety of industrial timber-yielding forests, suitable climate and soils for farming, and some 97.5% of the country's 5 million inhabitants.
- 1.3 Paraguay is confronted with environmental problems which are eroding the quality of life of its population, hindering growth and impeding the country's long-term sustainable development. The fundamental environmental problems that Paraguay faces derive in many cases from its public sector economic development policies and programs. The Paraguayan economy is based on its agricultural sector. Since 1950, the primary source of growth in the value of agricultural production has come from expansion of farmland into formerly forested areas and conversion of areas of the Oriental Region for agricultural use. The public sector has invested in roads and promoted land settlement and private investment in rural areas. During the 1970s, land under cultivation underwent enormous expansion. Acreage planted to cotton increased fivefold, 10 times as much land was devoted to soybeans and corn acreage doubled over the decade. As a result of this expansion, the country's forested areas were reduced significantly.
- 1.4 The absence of an effective land ownership system and resultant insecurity with respect to property rights added to the pressure on national forest cover owing to the occupation of land by squatters and unlawful extraction of wood. The rate of deforestation in Paraguay is alarming. Between 1985 and 1991, the average rate of deforestation was 290,000 ha/year, and at times as high as 500,000 ha/year, with attendant adverse effects on the conservation of biodiversity, destruction of habitat and damage to watershed areas and resultant climate change.

- 1.5 The expansion of farming has led to increased use of fertilizers and pesticides. Population centers adjacent to large-scale farming operations with their heavy reliance on (primarily) spraying of agricultural pesticides report health complaints linked to these toxic chemicals. Industrial development, particularly the growth in oil production and tannery operations, has caused an increase in the volume of effluents, reducing the water quality in rivers, streams and especially in the Bay of Asunción and Lake Ypacarai.
- 1.6 Population growth and increasing urbanization have multiplied both household effluents and the problems of solid waste disposal. The metropolitan areas of Asunción and Greater Asunción are home to 37% of the country's inhabitants and 65% of its urban population, with an annual growth rate of 7 % -- all within an area representing less than 1% of Paraguay's national territory. It is this area which faces the most critical environmental problems, including solid waste production at the rate of 0.961 kg/inhabitant/day, versus garbage collection and disposal services that cover barely 40% of the population. Only 56 % of the capital's inhabitants have access to sanitary sewerage. Among urban dwellers in the rest of the country, only 24% are connected to sewerage systems, and just 33% of inhabitants in rural or remote areas have available latrine programs. These figures are among the lowest in South America.
- 1.7 An increase in the number of vehicles and the obsolescence of the bulk of these, along with the use of leaded fuels, is producing air pollution in the cities of Paraguay. With the failure of municipal administrations to adopt adequate regulatory, land use and environmental management plans, air quality in the country's main urban centers is deteriorating, which is adversely affecting the environment, quality of life and the health of the country's inhabitants.
- 1.8 Environmental problems are inherently complex and cut across various sectors. Some have to do with conservation and inadequate management of natural resources, while other are peculiar to an urban or industrial setting. The activities that cause environmental degradation are likewise complex and involve a wide range of actors and interests, and can only be solved through integrated action. Paraguay has yet to implement a system of environmental reviews and corrective measures to handle the frequent conflicts of interest that arise between economic development and the needs of society and protection of the environment.
- 1.9 The financing of environmental projects in Paraguay has been linked to mega-projects whose designs have in many cases included complicated execution procedures that add barriers to the participation of civil society. This has led to delays and difficulties in resolving problems which are often highly specific and require decisions at the local level. There has been inadequate coordination of performance and execution of environmental programs between bilateral and multilateral agencies, causing confusion on the part of program beneficiaries and lowering the results achieved. Potential beneficiaries are often unaware of the

programs that the government is offering and lack the ability to plan and submit a consistent project that meets their needs and satisfies the requirements set by the authorities. The capacity for identifying solutions and attracting resources from the different sources of financing available in the country requires strengthening.

- 1.10 Participation by the community and public at large in the discussion of local problems and implementation of solutions is still weak in Paraguay. However, the work of the NGOs and the national media is making a major contribution by raising public awareness. Long-term solutions to environmental problems require strong participation by civil society since improvements in environmental quality come about in response to demand. The public hearings held as part of the environmental impact assessment (EIA) procedures are often limited to the presentation of projects that have already been designed and analyzed, instead of serving as a forum for discussing alternative proposals and initiatives. In 1998 and 1999, 20 public hearings were held as part of the EIA process. Access to environmental information is limited, the data being widely dispersed among various public institutions which do not actively promote the use of the information available to them.

B. Legal and institucional framework

- 1.11 In the last 10 years, Paraguay has adopted a comprehensive legal framework for protecting the environment and managing its natural resources. The National Constitution of 1992 makes specific reference to the environment in various articles and lays the foundation on which to build a strong administrative and legal framework in this area. Law No. 294 on Environmental Impact Assessment requires the issuance of an EIA for any investment project that includes works, the size or scale of which may affect the environment, in order to minimize or mitigate any adverse effects it may have. In some cases, new or stricter environmental quality standards have had to be adopted, and a number of laws now exist which govern the use of natural resources in various sectors, public health, etc. Paraguay is a signatory to the bilateral and international conventions on protection of water resources, biodiversity, wildlife and other natural resources. However, the existence of overlapping provisions and inconsistencies make it necessary to harmonize the body of laws and regulations governing the environment. In order to consolidate the legal framework it will be necessary to first harmonize the existing laws under an Environmental Code, and then develop longer-term plans for establishing environmental rules and standards.
- 1.12 The legislative branch is becoming more involved in environmental issues through special committees created in the Senate and Chamber of Deputies, such as the Committee for Protection of Natural Resources. Similarly, government agencies such as the Environmental Directorate of the Office of the Attorney General, the Environmental Control Directorate under the Auditor General's Offices, and the Ombudsman's Office are taking a more active role in environmental problems. As a result of the decentralization effort, departmental and municipal governments are

assuming greater responsibility for the different environmental problems. The risk in the government's decentralization program is that the departments and municipalities may not be able to fulfill their added responsibilities due to a lack of resources and qualified personnel.

- 1.13 There are numerous cases in which the country's environmental institutions have overlapping jurisdictions, which is a potential source of conflict between government authorities in carrying out their duties. Responsibility for protection of the environment is shared between the Ministry of Agriculture and Livestock (MAG) and its Undersecretariat of Natural Resources and the Environment (SSERNMA); the Ministry of Health and Welfare (MSPyBS) and its National Environmental Cleanup Service (SENASA); the Municipality of Asunción; local government and other entities at the national and local levels. There is little coordination between these agencies, especially in the gathering of basic data and in conducting monitoring operations. There are few institutionalized opportunities for contact among the government agencies themselves, and between them and the private sector. Public resources are not being used efficiently, and progress in the area of environmental quality control is modest at best. The fact that environmental problems affect so many different sectors, makes it all the more necessary that there be substantial coordination between the agencies responsible for their control.
- 1.14 Responsibility for defining the national policy is split between many different agencies and not every sector receives its fair share of attention. There is a need for a forum to facilitate debate among all of the actors involved, in order that the agreements reached and the resolutions issued by government agencies can form the basis of a national policy on environmental rights.
- 1.15 Many of the agencies responsible for protecting the environment have regulatory and executive functions. These agencies have a role in protecting the environment, and at the same time promote specified sectors and execute specific projects. The SSERNMA, through its Department of Environmental Management (DOA), performs regulatory duties in relation to environmental impact assessment, the issuance of environmental permits, establishment of environmental standards, and monitoring of compliance with these. Through its National Forestry Service (SFN), it has a number of responsibilities relating to the management of forests and reforestation programs. The SENASA is responsible for facilitating clean water supplies and sewerage services in cities of less than 4000 inhabitants, as well as monitoring and controlling industrial pollution. The DOA and CORPOSANA also perform regulatory duties to control industrial pollution. The regulatory and enforcement responsibilities of these institutions are often compromised by their need to carry out specific projects.
- 1.16 The existing laws and regulations provide a number of stringent instruments, including fines and penalties under administrative and criminal law to help the government enforce its rules. In environmental areas, however, such enforcement is

weak. The agencies responsible for implementation of environmental policy, particularly the DOA, occupy a lower rung in the hierarchy of administrative institutions and are chronically underfunded and shorthanded. What personnel they do have are not sufficiently qualified in technical aspects of the field, and lack the administrative skills necessary to manage their scant resources. One example of these shortcomings can be seen in their inability to process more than 20-40% of the EIAs required over the past three years. Figures for 1999 show that of the 841 files submitted, only 180 had received an EIA Finding or were accompanied by an Environmental Control Plan.

- 1.17 Between 1993 and 1997, the size of Paraguay's national civil service grew by 27.8%. By creating relatively inflexible rules for administering the nation's civil servants, Law No. 200 "Civil Service Statutes" undermined the ability of the agencies responsible for environmental protection to carry out their duties. The absence of procedures and regulations governing the issuance of EIAs, the exercise of enforcement measures, the imposition of penalties and the distribution of responsibilities among its environmental control agencies, are just a few of the problems facing the Paraguayan government.
- 1.18 The legal and administrative requirements for environmental quality control are not widely known and understood by the private sector and general public of Paraguay, who are frequently unaware of the importance of conserving the environment or the means available for expressing support and enforcing environmental protection rights. Inconsistencies in the application of technical criteria among the institutions responsible for implementing environmental policy, along with the lack of well-organized procedures and low level of administrative capacity, have combined to create the impression that the system for safeguarding environmental quality is bureaucratic, costly and ineffective.

C. Current environmental controls and supervision

- 1.19 The functions of environmental control and supervision are being carried out at present by different institutions at the national, departmental and municipal levels. At the national level, these actions are exercised by the Undersecretariat of Natural Resources and Environment (SSERNMA), part of the Ministry of Agriculture and Livestock (MAG); and by the National Environmental Health Service (SENASA), which reports to the Ministry of Health and Welfare.
- 1.20 The SSERNMA prepares, executes and administers the policies, plans, programs and projects involving renewable natural resources and environmental management of the national territory. The agencies that operate under the SSERNMA include: (i) the Department of Environmental Management (DOA), which is responsible for managing the environment and evaluation of environmental impact assessments submitted on projects, managing environmental research, monitoring and controls; and topics connected with the ozone layer and water resources; (ii) the Department

of National Parks and Wildlife (DPNSV), which proposes the creation and administration of protected wildlife areas, whether forested or not, on land owned by the State, and supervises and controls protected areas owned by private parties, including hunting, raising of animals, marketing and trade in wildlife products; and (iii) the National Forestry Service (SFN), which controls and monitors production of forest resources, in both natural forests and commercial plantations, as well as areas currently lacking forest cover by classified as forestry lands.

- 1.21 SENASA is responsible for the supervision and control of environmental sanitation programs related to water supply projects, disposal of human wastes and garbage, and pollution controls. The Environmental Protection Directorate of SENASA is responsible evaluation, supervision, control and standardization of topics related to pollution of natural resources (water, air soil) as a result of industrial and urban activities throughout the country, including inspection, evaluation and registration of chemical substances entering the country.
- 1.22 There are environmental entities in each of the 17 departments into which Paraguay is divided. Most of these units lack sufficient staff and structure to serve as regulatory bodies overseeing the environment and natural resources. Very few of the countries municipalities have environmental bodies, and those few that do exist are woefully inadequate. Asunción has a Department of the Environment which is actively seeking to exert control in this area, but a lack of personnel and inadequate equipment are hampering its operations.

D. Paraguay's strategy for dealing with the environment

- 1.23 To correct the current problems affecting its institutional framework in this area, Paraguay's Congress passed Law No. 1561/2000 on July 21, 2000. This legislation represents a national consensus on the importance of adopting an integrated approach in dealing with the country's environmental problems. The law in fact creates the National Environmental System (SISNAM); the National Environmental Council (CONAM), which will serve as a forum for discussion and formulation of the country's environmental policy; and the Environmental Secretariat (SEAM), an autonomous government corporation with its own legal capacity, capital, and perpetual status. Regulations implementing this law were enacted in Decree No. 10579 of September 20, 2000, and the regulations were amended by Decree 10961 of 27 October 2000.
- 1.24 Law No. 1561/2000 establishes a new institutional and legal framework for Paraguay which recognizes the importance of sharing responsibility for improving the environment between the public and private sector in an integrated approach. The objectives to be achieved under the country's new environmental framework include transparency in the actions taken by the constituted authorities, participation by civil society in decision-making on environmental questions, and decentralization of control and monitoring of the country's natural resources. Along

with institutional reform and decentralization, the creation of an environmental investment fund to support the implementation of programs and projects for the conservation of natural resources and introduction of medium- and long-term environmental controls will help to ensure the sustainability of the new national environmental system.

- 1.25 The new law transfers responsibility for the preparation, standardization, coordination, execution and supervision of environmental policy to the SEAM. The SEAM reports to the Office of the President of the Republic, indicating the importance with the government attaches to environmental issues. Under the new structure, the duties of the DOA, the DPNVS (under the SSRNMA), and the Environmental Protection Directorate (under SENASA) are transferred to the newly created SEAM. The law also transfers the assets, budgets and personnel of the former entities to the SEAM.
- 1.26 Under Law No. 1561, the new structure of the SEAM will have four subject-area Departments. The Environmental Management Department will carry out environmental management functions throughout the national territory; provide coordination across sectors and between government agencies; look after international relations; oversee environmental education and awareness; and implement the national environmental information system. The Environmental Quality Control and Natural Resources Department will perform the following functions in partnership with the departments and municipalities: evaluation of environmental impact assessments and issuance of environmental permits; and control, supervision, monitoring and management of environmental quality, including hunting, marketing and trade in wildlife species. The Conservation and Protection of Biodiversity Department will administer and supervise protected areas on state-owned land, and establish the strategies for utilization and conservation of biodiversity. The Water Resources Department will promote management of water resources, balancing its multiple uses.

E. The Bank's strategy for Paraguay

- 1.27 The Bank's activities in Paraguay focus on four strategic areas: (i) development and modernization of the structure of the country's productive sector to ensure that Paraguay participates effectively in regional economic integration; (ii) modernization of the State in order to strengthen its ability to carry out its regulatory role and promote economic and social development, improve its efficiency in providing basic services and strengthen conditions of governance; (iii) development of the rural sector in order to permanently raise the living standards of the rural population and reduce poverty; and (iv) reform the social sectors in order to help develop human capital and reduce poverty.
- 1.28 The proposed operation is consistent with the strategy for modernizing the State since it will support restructuring of the institutions in the environmental sector.

The program will make for more efficient and effective application of existing environmental legislation and contribute to development of new environmental laws and relevant regulations, establishment of environmental controls and monitoring mechanisms, formulation of a national environmental policy, and diversification of the means for investing in environmental improvements. This operation will help reinforce the credibility of the Paraguayan government by bringing together the functions of environmental policy formulation and enforcement in a single institution at a senior level of government, eliminating duplication and overlapping of function between organizations, ensuring that the new institution targets problems at the national level, and strengthening local environmental control organizations.

- 1.29 The proposed operation will also contribute to the modernization of the productive sector by improving its transparency, predictability and legal requirements, as well as ensuring that environmental costs are made part and parcel of the development process. In the long run, improving the quality of the environment will benefit the poor who live in urban and rural areas where there are higher pollution loads and more severe degradation of natural resources. Increased public participation will heighten the sense of responsibility for preventing such environmental degradation.
- 1.30 The Bank's environmental strategy for Paraguay has identified three priorities where special attention is called for: (i) improving environmental management through reform of the legal framework and institutional system; (ii) promoting economically sustainable investments in the environment; and (iii) increasing local government and private sector participation in the management and solving of environmental problems. These priorities have led to the identification of three strategic areas: (i) reforming the legal and institutional framework of the environmental sector; (ii) supporting investment programs that include expanding the coverage of public services and environmental clean-up, monitoring and management of watershed areas, conservation of biodiversity and preservation of protected areas, and national parks, and sustainable development of ecoregions; and (iii) strengthening decentralization through support for local and subnational authorities, helping them to manage and resolve specific environmental problems. The proposed program will contribute to the reforms set out in the first strategic area, support specific programs of the type described in the second strategic area, and help lay the foundation and initiate action in the third strategic area.

F. Activities of the Bank and other lending agencies in the sector

- 1.31 Through its loans for specific projects in areas such as transport (loans 744 and 745/OC-PR), the Bank has strengthened the environmental unit of the Ministry of Public Works and Commerce. This helped to attract investment in environmental protection at the sectoral level, but is not sufficient to provide the capacity building required by the country's environmental institutions.

- 1.32 The Government of Paraguay began discussing the establishment of a national environmental system with the Bank in 1992. Political conditions did not permit the Bank to proceed with its implementation at that time, although the Bank did finance various studies that will serve as a basis for analysis of the proposed program. These studies and those financed by other bilateral and multilateral donors point to the technical and political need for establishing a national environmental system.
- 1.33 The Bank financed two studies (ATN/II/5788/PR, Paraguay's Environmental Strategy; and ATN/FC/6006/PR, Managing Water Resources), which will provide updated information on the examination of environmental problems and priority areas for investment that will have a positive impact on the environment.
- 1.34 Paraguay is receiving support through various bilateral cooperation activities such as the ENAPRENA project funded by the German technical cooperation agency (GTZ), the objective of which is to help protect Paraguay's natural resources through actions to strengthen legal aspects, develop environmental policies and encourage participation by civil society. The USAID is engaged in discussions aimed at providing a bilateral debt swap which would improve the country's fiscal position and provide recourses to be used as seed capital under the future Environmental Fund.

G. Conceptual design of the program

- 1.35 This operation represents the first step in the reform and modernization of the institutions responsible for environmental management in Paraguay, beginning with the establishment of the national environmental system and strengthening of its key institutions. The operation will establish the basis for continuing the decentralization process and attracting medium- to long-term investments in the sector. The proposed program will support Paraguay at a critical time in which conditions are in place for developing an integrated system capable of defining, implementing and supervising an environmental policy which will contribute to the country's sustainable economic development and help raise the living standards of its population.
- 1.36 The program will support the Paraguayan government's efforts to implement the SISNAM, established recently under Law No. 1561/2000 (see section D above). It is important that the environmental control and supervision activities currently being carried out by the DOA, DPNVS and DPA continue during the transition period, and the SEAM is working to establish the necessary agreements to accomplish this. Upon completion of the transition, the program will strengthen the SEAM in the specified areas, as well as reinforcing its administrative capacity, enabling the Secretariat to fulfill its environmental control responsibilities in an efficient manner.

- 1.37 The most important task during the transition will be to help the SEAM incorporate the human and capital resources of the institutions which, in accordance with Law No. 1561, are to be transferred to the Secretariat. The program is designed to provide support during the transition, helping to ensure a transparent and orderly shift from the current organizational arrangement to the new structure. Through specific consulting operations, the program provide support for defining the final structure of the new Departments based on their legal responsibilities and technical requirements. At the same time, the program will provide help with planning for the recruitment and installation of personnel for the newly created positions; personnel will be selected on the basis of merit through internal and external competitions conducted in a transparent manner. In designing this program, the lessons learned from various institutional strengthening projects for environmental agencies have been taken into account, particularly those in which the beneficiary was a newly established organization or had just undergone radical restructuring. From these projects it is clear that technical assistance is the vital element for success, and that two options were considered in the design of such assistance: the hiring of a single firm capable of assisting the institution throughout the execution of the operation, or the recruitment of various firms. The Bank's experience, and that of other international lending agencies in projects of similar scope, has shown that the single-consulting firm option can entail disadvantages for the following reasons: (i) difficulties in finding a firm with optimal capacity in all of the technical and administrative fields required; (ii) disparities in the capacity of the executing agency to optimize the benefits of technical assistance, making it difficult for the consulting firm to meet deadlines and produce results; (iii) variations in technical assistance needs over the course of the execution period which conflict with work plans and availability of the human resources of the consulting firm; (iv) difficulties with monitoring and supervision of a single firm's performance, broken down into multiple components and with numerous referents and counterparts; and, finally, (v) loss of opportunities for taking advantage of new methodological developments and better or less costly options that arise during execution of the contract.
- 1.38 In order to avoid the potential problems due to employment of a single consulting firm as described above, it was decided that the program will hire six consulting firms with differing specializations and at different times during the execution period. The assistance provided by these firms will be supplemented as well by a small group of individual consultants hired to provide support for Environmental Investment Fund component and the operations of the PEU. While it will incur higher administrative costs, this option is considered a more appropriate solution which will be easier for the SEAM to manage.
- 1.39 The program will provide support for the design of an Environmental Investment Fund for the country, which will permit contributions of budgetary resources, foreign loans and donations, as well as revenue flows from fees for environmental services and earnings of any nature from investments in the financial market. The

resources of the fund will be used to finance activities that support preservation of biodiversity, recycling, solid waste management and environmental science.

- 1.40 The design of this Fund is expected to incorporate the lessons learned through the establishment and operation of over 25 environmental funds in the region. Experience has shown that creating a fund of this nature requires a substantial investment of time and resources, and patient commitment to establishing a new institution. The process of designing the Fund calls for broad participation by the public sector, NGOs, organized civil society and the private sector. Its Governing Council must contain equitable representation from the public and private sectors, and organized civil society. The Fund will have a clear set of operating regulations for managing its financial resources, and for technical selection of projects to be funded, eligibility requirements, fields of activity, and technical criteria for economic and environmental feasibility. The most important requirement is that the selection of projects must be open and transparent. Finally, careful supervision and evaluation of the projects is essential in order to ensure that the environmental and social benefits are realized.

II. THE PROGRAM

A. Objectives

- 2.1 The overall objective of the program is to support implementation of a modern institutional framework for managing Paraguay's environment. Its specific objectives are to: (i) coordinate the mechanisms used to formulate environmental policy and enact laws and regulations governing the environment; (ii) improve the ability of the country's institutions to implement and enforce the laws, policies and regulations governing the environment; and (iii) develop mechanisms for sustainable financing of projects and other activities to support the environmental objectives of the country.

B. Goals

- 2.2 In order to fulfill its objectives, the program proposes to achieve the following goals by the end of the execution period: (i) 100% of the resolutions passed by the CONAM are being used in strategic planning, control and management of the environment; (ii) 30% of the country's departments are engaged in environmental management programs; (iii) environmental impact assessments are being carried out for 80% of sector projects, and the waiting period for analysis and granting of project licenses has been cut by 50%; (iv) updated data on EIAs, environmental permits, public hearings, the registry of industrial polluters, endangered species list, deforestation indices and quality of natural resources is available to the public over the Internet (via the SEAM web site); and (v) a sustainable mechanism for funding environmental investments is in operation, with resources contributed from various sources and the financing of 10 pilot projects.

C. Description of the Program

- 2.3 The program will have three components: (i) establishment of the National Environmental System; (ii) strengthening of environmental agencies; and (iii) the Environmental Investment Fund.

1. Establishment of the National Environmental System (US\$1,669,000)

- 2.4 This component will support integration of public agencies and private sector organizations into the new National Environmental System (SISNAM), which will be responsible for implementing environmental policy in a manner that ensures joint cooperation and harmony among its members, and an organized approach to solving the country's environmental problems. The component calls for execution of the following four subcomponents: (a) establishment of the National Environmental Council; (b) creation of the legal framework for the environmental

sector; (c) implementation of the national environmental information system; and (d) environmental education.

- 2.5 The costs under this component will include: (i) consulting services to coordinate and implement the environmental information system and the strategy for environmental education; (ii) consulting services for environmental policies, laws and regulations; (iii) computer hardware for the national environmental information system, communications equipment and office furnishings; (iv) personnel; (v) travel and per diems; (vi) office supplies and printing, graphics materials and maintenance of equipment; and (vii) advertising to promote environmental education.

a. Establishment of the National Environmental Council

- 2.6 This subcomponent will provide assistance for creation of the National Environmental Council (CONAM) by financing the drafting of its internal regulations, the organization of three annual meetings of the Council, the strengthening of its Executive Secretariat, and the provision of support for its Technical Committees.

b. Implementation of the legal framework for the environment

- 2.7 Support will be provided for consolidation of the legal framework governing the country's environmental institutions through the establishment of an environmental policy which is national in scope, decentralized and arrived at by consensus among the different public and private sector groups active on environmental issues, and by financing a review of the legal framework and identification of needs and gaps in the regulations, preparation of a draft Environmental Code and a digest containing all of the country's environmental laws, standards, rulings and decisions.

c. Implementation of the national environmental information system

- 2.8 This subcomponent will finance the design and implementation of National Environmental Information System (installation of hardware, placement in operation and provision of training in the use and maintenance of equipment), which will facilitate networking and ensure constant communication among all members of the SISNAM for decision-making on environmental issues.

d. Environmental education

- 2.9 This subcomponent includes educational programs, promotional activities, awareness campaigns, publications and distribution of information on environmental topics and the functions of the Environmental Secretariat. These activities will be carried out through the formal and informal education systems, print media, radio and television, and regular educational programs and campaigns. The subcomponent includes educational materials and campaigns aimed at the indigenous and guarani communities.

2. Strengthening of environmental agencies (US\$4,534,000)

- 2.10 This component will provide institutional strengthening for the environmental organizations that make up the SISNAM, providing them with the technical capacity needed to carry out their environmental control functions, and to work efficiently and effectively for conservation and preservation of biodiversity. The component is divided into three subcomponents: (a) creation and strengthening of the Environmental Secretariat; (b) strengthening of the environmental organization in each sector; and (c) strengthening of departmental and municipal governments.
- 2.11 The costs incurred under this component include: (i) consulting services to provide coordinate and support for the SEAM during the transition process to develop its organizational structure, and for implementing the environmental management system; (ii) training and retraining programs; (iii) computer hardware, communications equipment and office furnishings; (iv) vehicles; (v) specialized measuring equipment; (vi) personnel; (vii) office supplies and graphics materials; (viii) maintenance and repair of equipment; (ix) seminars; and (x) rehabilitation of the headquarters building.

a. Creation and strengthening of the Environmental Secretariat

- 2.12 Support will be provided for the start-up of the Environmental Secretariat (SEAM), initial assistance in carrying out its functions, including the formulation, coordination, supervision, monitoring and execution of environmental policy. This support will take the form of activities to strengthen its operations (financial, economic and human resource administration) and technical capacity for drafting studies, guidelines, procedures, rules and standards. This subcomponent will finance the recruitment of consultants to help the SEAM incorporate the personnel and assets of the SSRNMA and SENASA into its new structure, as well as the provision of training programs for SEAM personnel, rehabilitation of the infrastructure of the current National Museum of Natural History, the purchase of equipment and operation of its technical and administrative activities, and the hiring of additional consulting services. The institutional strengthening will include providing opportunities to exchange experiences with other environmental institutions in the region.

b. Strengthening of sectoral organizations

- 2.13 This subcomponent will assist in the creation of environmental units in the various sectoral organizations, as well as strengthening existing environmental units in government ministries, sectoral organizations and state Attorney General Offices by providing them with technical assistance, equipment and training programs. The subcomponent will include financing for the organization of workshops with the participation of SEAM and the sectoral units, and the development of new organizational structures for the National Forestry Service (which is part of the

Ministry of Agriculture and Livestock) and the Environmental Health Directorate (which reports to the Ministry of Health). These activities will strengthen the SISNAM, as well as the relationship of the SEAM to the sectoral organizations; encourage the sectoral organization to participate in the CONAM; and help to coordinate the procedures used to establish environmental control guidelines.

c. Strengthening of departments and municipalities

- 2.14 This subcomponent will provide technical assistance for environmental agencies at the departmental and municipal level, helping to reinforce the principle of decentralization of authority to those departments and municipalities that represent the country's respective ecoregions, contain large concentrations of inhabitants and have significant environmental problems. The component calls for provision of technical assistance, equipment and training programs for up to six departments deemed representative of each ecoregion and five municipalities, to organize their legal, administrative and operating structures and enable them to function as the environmental supervision and control authority in their respective jurisdictions.

3. Environmental Investment Fund (US\$1,477,000)

- 2.15 This component will include the design of a fund for financing of high priority investments in environmental control and management and preservation of biodiversity, which will accept contributions from both public and private sector sources. The program will provide resources for: (i) developing the technical proposal; (ii) determining the level of demand; (iii) training future clients of the fund in the preparation and execution of projects; (iv) identifying other potential donors; (v) drafting the operating regulations for the fund; and, where necessary, (vi) drawing up the legal instruments need for its creation. The program will finance preparation and execution of a series of pilot projects which will allow monitoring of demand and evaluation of the financial and administrative capacity of the fund. The resources for these projects will be provided on a nonreimbursable basis and not as part of the fund's capital.

D. Cost of the program

- 2.16 The total cost of the program is estimated at US\$10 million. The breakdown by sources of financing and categories of investment is shown in the following table:

Program Costs (US\$ equivalent)				
	BID	LOCAL	TOTAL	%
I. Administration	725,000	122,000	847,000	8.5%
Executing Unit	527,000	122,000	649,000	
Support for procurements	198,000		198,000	
II. Direct Costs	6,815,000	865,000	7,680,000	76.8%
Establishment of SISNAM	1,533,000	116,000	1,669,000	
Strengthening of environmental agencies	3,910,000	624,000	4,534,000	
Environmental Investment Fund	1,352,000	125,000	1,477,000	
III. Associated Costs	380,000		380,000	3.8%
Project preparation facility ^{1/}	230,000		230,000	
Program evaluation	60,000		60,000	
External auditing	90,000		90,000	
IV. Financial Costs	80,000	1,013,000	1,093,000	10.9%
Interest		900,000	900,000	
Credit fee		113,000	113,000	
Inspection and Supervision	80,000		80,000	
Total Program Cost	8,000,000	2,000,000	10,000,000	100,0%
<i>Percentage</i>	<i>80%</i>	<i>20%</i>	<i>100%</i>	

^{1/} PPF 1257/OC-PR (4/LC-PR)

E. Financing of the program

- 2.17 The Bank will contribute an amount equivalent to US\$8 million (80% of the total) from Ordinary Capital (pooled currencies). The local counterpart contribution, which will amount to the equivalent of US\$2 million (20% of the total), will come from the national budget. The prospects of obtaining the local counterpart funding are analyzed in the financial feasibility section of Chapter V.
- 2.18 The proposed loan will be subject to the following financial terms and conditions: (i) interest rate variable; (ii) credit fee 0.75%; (iii) charge for supervision and inspection 1%; (iv) disbursement period of 4 years; (v) grace period of 4 years; and (vi) amortization period of 20 years.

III. EXECUTION OF THE PROGRAM

A. Outline of execution

- 3.1 The Program of Support for the National Environmental System will be carried out by the Environmental Secretariat through its Project Executing Unit (PEU). The PEU is at present located in the General Secretariat of the Office of the President, but will be transferred to the SEAM when execution of the program begins. The PEU will be responsible for complying with the conditions precedent to the first disbursement of the loan, preparing the tender call for recruitment of consulting services needed for the procurement and contracting procedures, the transition stage of the SEAM, and the formulation and approval of the Annual Work Plan (AWP) for the first year of the program. When the disbursements begin, the PEU, which by then will have been transferred to the SEAM, will provide support for developing the components and activities of the program. The PEU will be aided by a Coordinating Committee to be created within the SEAM to help organize the program's activities under the new institution.
- 3.2 The Environmental Secretariat was created under Law No. 1561 promulgated July 21, 2000, and reports to the Office of the President of the Republic. The regulations enacting that law are contained in Decree No. 10,579 of September 20, 2000, which was amended by Decree No. 10,961 of October 27, 2000 to ensure the participation of representatives of departmental and municipal governments, the private sector and environmental nongovernmental organizations (NGOs) in CONAM.

B. Project Executing Unit (PEU)

- 3.3 The PEU was created by Presidential Decree No. 9840 of July 31, 2000, and will be initially sited within the General Secretariat of the Office of the President (SGP) since the SEAM is a new institution in process of organizing itself and with a recently appointed secretariat. The SGP managed the resources provided under the Project Preparation Facility (loan 1257/OC-PR, under line of credit FPP/004-PR) for the contracting of PEU personnel and technical assistance, the purchase of equipment and publication of tender documents for starting the program. Once the program is underway, the PEU will be transferred to the Strategic Planning Department of the Environmental Secretariat. Prior to the first disbursement, the borrower must present to the Bank's satisfaction evidence that the PEU has been legally transferred from the General Secretariat of the Office of the President of the Republic to the SEAM, that it has been assigned the personnel necessary for its operations, and that it has implemented a suitable financial-accounting control system for managing the program's resources.
- 3.4 The Project Executing Unit is made up of: (i) a Coordinator; (ii) a legal affairs specialist for the first year of the program; (iii) a Specialist on Financial institutions;

(iv) three technical coordinators, one for each component; (v) a technical secretary; and (vi) an administrative assistant. The PEU will be responsible for planning, coordinating, administering and supervising the activities of the program according to the standards and procedures established in the loan contract. Given the recent creation of the Environmental Secretariat, and in order to streamline public administration procedures, the PEU will recruit a recognized consulting firm with ample experience to provide support for administration of the program while contracting of services and procurement of goods procedures are being carried out.

C. Coordination Committee

- 3.5 The program Coordinating Committee's main task will be to integrate program activities into the SEAM's operational areas, establish implementation strategies and promote close supervision of the program's execution.
- 3.6 The Coordinating Committee will have as its members the SEAM directors and will be chaired by the Executive Secretary, who heads the SEAM. The Committee will hold regular meeting once a month and may be convened in special sessions whenever required, in both cases with the attendance of the PEU's coordinator.

D. Technical operation of the program

- 3.7 The Program in Support of the National Environmental System will consist of three components, with their respective subcomponents and activities which will be carried out by the corresponding areas of the SEAM, acting through the PEU. Each component will be headed by a technical coordinator, whose task it will be to integrate the program's activities into the respective areas of the SEAM.
- 3.8 Given that the SEAM is newly created and will have to undergo a process of consolidation as it strives to combine and reorganize pre-existing entities, technical assistance will play an even larger role in the execution of this program. Based on the experience gained in projects of similar scope, it was deemed advisable to hire a number of consulting firms with expertise in separate areas, in order to provide support for the SEAM at different stages of the program. The two stages into which execution of the operation will be divided are: the stage of transition to and formation of the SEAM, and the operational stage in which it is carrying out the activities under its mandate as an environmental oversight body.
- 3.9 The transition stage covers the start-up period in which the SEAM begins its regular operations and is expected to last for approximately one calendar year. A consulting firm (called the "transition team") will be hired to support the SEAM during this stage, at the same time helping to launch the operations of the CONAM and gradually implement the SISNAM. This stage will also include the recruitment of a consulting firm to assist the PEU with tasks related to the *contracting of services and procurement of goods*.

- 3.10 The transition stage will end when personnel have been selected and hired for at least 40% of the technical and administrative positions planned for the SEAM (around 90 of the 233 positions to be filled). Recruitment will be based on qualifications and skills of candidates, with support being provided by the “transition team” consultants. **Before publishing the bidding documents for the hiring of consulting services to provide support in the second year of the program’s execution, the borrower must present to the Bank’s satisfaction evidence that it has hired and/or assigned, through merit-based competitions, at least 40% of the personnel needed to staff the technical and administrative positions in the SEAM called for under the program’s plan of action.**
- 3.11 The stage in which the SEAM goes into full execution of its mandated activities will follow the transition stage, and be marked by initiation of the technical activities described in the project documents. At this stage, the following areas will require external assistance in the form of the different types of consultancies, depending on the needs and level of preparation of the executing agency: (i) drafting of the *proposed environmental policies and regulations*, to be carried out by a consulting firm; (ii) technical assistance for the design and implementation of the EIA, environmental quality control, monitoring and supervision systems, and analysis of associated institutions, to be carried out by a consulting firm known as the “*environmental management*” team; (iii) strategic and technical proposal for *design of the Environmental Investment Fund*, to be carried out by individual consultants; (iv) design and implementation of the *environmental information system*, under a contract with a consulting firm; and (v) strategic proposal and support for the planning and execution of *environmental education* activities, to be carried out under a contract with a consulting firm.

1. Establishment of the National Environmental System

a. Establishment of the CONAM

- 3.12 The PEU will receive support from the transition consulting firm for establishment of the CONAM. The consulting services will help to draw up the CONAM’s internal regulations, organize the Council’s three annual meetings, and strengthen the Strategic Planning Department as the SEAM body responsible for CONAM’s Executive Secretariat; provide support for the formation of its technical committees and the development of their work agendas; and assist with evaluation of the Council’s operations after two years of participation in the different sectors, including the timing and quality of its decisions, follow-up to ensure compliance with its rulings, and its level of public recognition as an environmental control organization (by means of a consultancy which will include a survey).

b. Implementation of the legal framework for the environment

- 3.13 The SEAM will encourage dialogue with organizations in each sector, department and municipality, private sector entities, NGOs and business leaders with the object of proposing environmental policies to be submitted to the CONAM for discussion and approval. The program will provide support for the SEAM in reviewing the country's environmental laws to identify contradictions, gaps and overlapping provisions, and drafting the amendments needed to consolidate the legal framework of the environmental sector and facilitate performance of the Secretary's duties. Work on the legal framework will culminate in the preparation of an Environmental Code to be submitted as a bill before the legislature during the second year of the program. Finally, Paraguay's existing legislation will be compiled in the form of an Environmental Digest containing the Environmental Code and all of the laws, standards, rulings and agreements bearing on environmental problems.

c. Implementation of the national environmental information system

- 3.14 The design and implementation of the National Environmental Information System will be accomplished with the help of a consulting firm that will work in close coordination with the Environmental Management Department, which can provide the necessary contacts and access to information systems shared with other agencies and the respective areas of the SEAM. The consulting service will oversee the purchase and installation of hardware, and training for the personnel who will administer the system. The system will provide information on the status of natural resources, quality parameters, pollution conditions, the relevant control and supervision mechanisms, environmental laws and regulations, and so forth.

d. Environmental education

- 3.15 Assisted by a consulting firm or specialist institution, the Environmental Management Department will be responsible for setting environmental education strategies and tailoring these to specific sectors of the public. Depending upon the types of material and programming media available, the Department will prepare items such as videos, information brochures, magazines and posters for distribution through selected institutions and/or municipalities, as well as conducting surveys to gauge the level of awareness created through the program's activities.

2. Strengthening of Environmental Agencies

a. Implementing and strengthening the Environmental Secretariat

- 3.16 This subcomponent will include activities to reinforce administrative and financial capacity (economic and financial administration, institutional organization and human resources), and strengthen technical operations (procedures, guidelines, standards, environmental control systems). These activities will be carried out by the Administration and Finance Department, working in direct contact with the

various subject areas of the SEAM and aided by two of the consulting firms mentioned above: one specializing in institutional aspects (the “*transition team*”) which will provide help until the new SEAM has been fully implemented, and the other specializing in *environmental management*.

- 3.17 The first of these activities (reinforcing administrative/financial capacity) will entail devising the SEAM’s organizational structure, including the design of its internal economic and financial control operating systems, personnel roster, staff selection system, and review and updating of agreements and programs from its originating agencies.
- 3.18 The personnel structure proposed for the new SEAM includes a staff of around 270 employees distributed as follows: 98 professional staff members (36%), 135 technical personnel (50%) and 37 support staff at the secretarial level (14%). The breakdown of positions for each SEAM department is given in the project’s technical annexes. All staff positions will be filled in open competitions based on merit and skills demonstrated in examinations which officials transferring to the institution will be invited to take part. It is expected that a few positions -- less than 10, including those with environmental quality, EIA, environmental management and monitoring responsibilities -- cannot be filled by this means, in which case external competitions will be held to select individuals to fill these posts.
- 3.19 Four basic processes will be carried out order to ensure that the SEAM has a sufficient number of qualified staff: (i) the abilities of available personnel will be analyzed for purposes of locating them in the new positions opened in the SEAM, wherever possible; (ii) positions which must be filled by external competition will be identified; (iii) personnel whose skills are not needed by the new institution will be identified, and these individuals will be offered training and help for eventual relocation; and (iv) a broad training program will be carried out for the benefit of all personnel.
- 3.20 In order to ensure transparency throughout the selection process, SEAM will adopt a system of competitive examinations based on merit and skill testing governed by a Recruitment Committee assisted by representatives from the appropriate university disciplines, and will apply selection criteria that are similarly transparent in choosing personnel to receive the benefits of training. The details of this process are given in the action plan for the program.
- 3.21 The SEAM, aided by the transition consulting firm, will draw up a description of the positions for which individuals will be invited to compete; identify the basic criteria and additional assets desired for each position; define the selection criteria and the system of grading to be used; announce and publish the details of the competitive process and relocation plans, including the means for requesting a review or appealing the outcome; and establish a mechanism for answering queries and responding to request from interested parties.

- 3.22 The Executive Secretary will be responsible for appointing individuals to staff positions based on recommendations made by the Recruitment Committee, which will consist of: (i) the Executive Secretary of the SEAM, who will serve as chair; (ii) The Director General; (iii) the Director of the Department under which the positions being competed for are located; (iv) two members of the university teaching staff in the appropriate discipline for each position being competed for; and (v) the coordinator of the PEU. The Executive Secretary will have the right to speak without voting, except to provide the casting vote in the event of a tie.
- 3.23 The officials participating in these competitions will have the right to a review and appeal of the decision in each case at two levels: (i) through a request that the Secretary, in consultation with the Recruitment Committee, reconsider the decision taken in a given case; and (ii) by filing an appeal of that decision to be heard under administrative law before the judicial branch's Court of Accounts. The process for relocation and hiring of personnel is expected to take a maximum of 12 months to complete.
- 3.24 The project will include financing to carry out a training program with the objective of consolidating the human resource base of the SEAM, enabling the available personnel to perform the functions required under the Secretariat's new organizational structure. This program will include: (i) academic instruction at the graduate level for senior technical personnel in subject areas currently offered at national and regional institutions of higher learning; (ii) short courses in specialist areas for technical, para-technical and administrative personnel, to be provided under an ad-hoc curriculum developed for purposes of the present program by national institutions specializing in training program; (iii) short courses in general awareness and upgrading for all personnel in materials relating to the SEAM's mandate, in order to ensure minimum standards for comprehension of the principal guidelines and instruments required to carry out the environmental management work of the Secretariat; and (iv) on-the-job training arising from the technology transfer process required under contracts with specialized consultants. Employees benefiting under the training program will make a commitment to remain in their positions for at least double the period of leave granted to complete the respective training.
- 3.25 The SEAM will have the support of the PEU and a firm of consultants in conducting its training activities. The transition consulting firm will be responsible for: (i) developing transparent mechanisms for selection of personnel to receive training under the designated programs; (ii) providing technical assistance for the Department of Administration and Finance (DAF) in the development of training and re-training programs; (iii) drawing up detailed designs for training and re-training programs based on the inventory of needs compiled as part of the relocation exercise; and (iv) identify local suppliers of the formal training programs required and recommend specific institutions and training programs.

- 3.26 This subcomponent will provide a consultant to assist the SEAM in analyzing alternative means for ensuring its economic and financial sustainability, including consideration of outsourcing operations or introducing fees for certain services, the different collection methods, mechanisms for controlling these funds, and reducing the dependency on budgetary resources.
- 3.27 Strengthening for the technical operations of the new SEAM will be provided through the work of a consulting firm hired to advise the Environmental Quality Control and Natural Resource Directorate during implementation of the environmental control systems, including supervision and modernization of inspection procedures, licensing, cadastral surveys, registries and environmental analysis procedures; review, proposal and introduction of guidelines and standards for governing water, air and soil quality; imposition of a pilot project for monitoring of water resources with the participation of research institutions, municipalities and all public and private sector agencies having control over natural resources, including the purchase of portable equipment (kits), technical assistance and training for participating bodies; and the establishment of an inspection system run by the departments and municipalities under signed agreements, with the necessary communications equipment, radio-equipped utility vehicles and portable measuring kits, and including training courses for the personnel of the Environmental Quality Control and Natural Resource Directorate of the SEAM. These activities will be carried out in close coordination with the Environmental Management Department.

b. Strengthening of sectoral organizations

- 3.28 With support from a consulting firm specializing in management methods, the Environmental Management Department will conduct a survey of conditions in each sector's environmental unit and identify its technical assistance and training needs. Resources will be provided for creating, organizing and strengthening the administration and operations of three new environmental units (EUs) and two existing units to be identified. To assist the integration of organizations into the SISNAM, six workshops will be organized for the sectoral EUs on cross-sectoral coordination, environmental control mechanisms, and analysis of environmental projects.
- 3.29 This component will also provide support for specific activities in certain organizations with links to the management of natural resources and the environment in order to promote their modernization within the new institutional framework for the country's environmental agencies. Based on an analysis of each institution and its financial administration, new organizational structures will be designed for the National Forestry Service of the MAG and the Animal Health Directorate of SENASA, in order to expand their role in the environmental system. Technical assistance will be provided to help the National Museum of Nature establish a new institutional structure including private sector support and making the museum administratively and financially autonomous. Finally, this component

will provide support for the State Attorney General's Offices in the form of training courses for their personnel on environmental controls and management of the environment and natural resources, and two regional seminars for discussion, information and joint establishment of legal measures for control of the environment among Mercosur countries.

c. Strengthening of departments and municipalities

- 3.30 Technical assistance will be provided for six departments representative of each of the country's ecoregions, plus five municipalities, in order to strengthen their existing administrative and operational agencies. The first task will be to identify the departments deemed to be most representative in terms of their ecoregions, concentration of population and environmental problems. Agreements will then be signed specifying the obligations of the SEAM and the various institutions that will receive strengthening. And, finally, their legal, administrative and operational structures will be designed to include the operation of environmental control and supervision bodies. Six regional workshops will be held, aimed at public and private sector technical personnel with the institutions of the SISNAM, and intended to explain the country's new institutional and legal framework for the environmental sector and establish means for ensuring coordination between the central, departmental and local levels of government.

3. Environmental Investment Fund

- 3.31 The PEU will recruit a consultant to help design the fund, which will include drafting the technical proposal and drawing up and implementing the financial management system, identifying demand and potential donors, and, if necessary, producing the legal instruments required for its creation. This consultant will conclude its activities by preparing the fund's operating regulations. In turn, the PEU will support the Strategic Planning Department in carrying out the following activities which will provide the guidelines needed to design the Environmental Investment Fund: (i) creation of a working group to promote dialogue with the financial and business communities, the potential donors and future clients of the fund (NGOs, municipalities, etc.); (ii) organization of a seminar with the participation of administrators of environmental funds from other countries to share in their knowledge and incorporate the lessons learned; and (iii) identification and channeling of contributions from other international donors.
- 3.32 The main aspects that will be taken into consideration in designing the operating regulations of the fund are: (i) a clear mission and well-defined program with an impact immediately and in the medium-term, while at the same time developing broader capacity for longer-term applications, bearing in mind that the fund cannot attack all environmental problems simultaneously; (iii) creation of an appropriate balance between "green" and "brown" objectives, definition of priorities by type of project, and coherent initiatives that consist of integrated and mutually enhancing

activities; (iv) creation of a private organization with adequate representation and participation by the public sector, and having the necessary attributes including transparency, accountability and professional competence; (v) the capacity to identify sources of financial resources and arrange for the adoption of incentives and mechanisms for generating the revenues needed for long-term sustainability; (vi) identification of the borrowers and beneficiaries of loans among the public and private sector institutions working to improve the environment; and, (vii) a loan portfolio of high-priority investment projects aimed at conservation of protected areas, reclamation of degraded areas, small recycling and solid waste management projects, and efforts to promote awareness of the environment.

- 3.33 The PEU will organize training activities for the future clients on methods of preparing and executing projects using the requirements and procedures established in the operating regulations, and will contract consultants to help prepare a number of operations as pilot projects. These projects will be evaluated according to the criteria set out in the operating regulations and in a manner which is transparent. The projects selected for this purpose will be financed from the program's non-reimbursable resources. The PEU, in coordination with the SEAM, will oversee execution and evaluation of the pilot projects. The assessment made of this set of projects will be instrumental to the development of the proposed mechanism for long-term financing of the fund, and will provide the elements needed to analyze the long-term impact which the fund can have as an incentive for institutional reform of the sector. Prior to the first disbursement of resources under this loan for pilot projects under the Environmental Investment Fund component, the borrower must demonstrate that it has placed the operating regulations for the fund in operation, as prepared on the basis of a model approved in advance by the Bank.

E. Disbursement Schedule

- 3.34 The following tables sets out the planned disbursement schedule over the four years of the program's execution.

Disbursement Schedule (in thousands of US\$)				
YEAR	IDB	LOCAL	TOTAL	%
1	2,140	480	2,620	25
2	2,440	520	2,960	28
3	2,160	540	2,700	26
4	1,660	560	2,200	21
Total	8,400	2,100	10,500	100
%	80	20	100	

F. Revolving fund

- 3.35 The resources of the Bank's loan will be disbursed to the executing agency in the form of a revolving fund of up to 5% of the amount of the loan.

G. Procurement of goods and services

- 3.36 The Bank's current policy will be applied in the procurement of goods and consulting services using program resources provided under this loan. Whenever funds from the Bank loan are used, international publicity will be required for the procurement of goods whose value is equal to or greater than US\$250,000, construction contracts valued at over US\$2 million, and consulting services valued at more than US\$200,000. The Bank will conduct an ex ante evaluation of all procurement procedures used in this program. The program does not include the financing of any construction works. All procurements of works, goods and services shall be grouped as shown in the Procurement Plan contained in Annex III-1.

H. Environmental considerations

- 3.37 The ESIB for this program was approved by the CESI on June 30, 1999. The principal recommendations made by the CESI were to: (i) include incentives and other economic instruments for regulation of the environment, as well as supervision and control measures; (ii) create mechanisms to provide coordination between environmental units in the various sectors; (iii) ensure that information on pollution and its control is provided through the environmental information system; (iv) develop mechanisms under the CONAM and SEAM to deal with topics relating to indigenous peoples; and (v) describe the supervisory institutions and mechanisms by which accountability for environmental management is assessed, and how the project will support these. The CESI did not require the preparation of an Environmental Impact Assessment (EIA). All of these recommendations are now incorporated into the program's design.
- 3.38 The use of economic instruments for bringing about change in the environmental behavior of private and corporate persons is regulated under Law No. 1561/2000, which creates the SEAM and makes this one of the Secretariat's duties and obligations, one which the program is designed to assist. Cross-sectoral coordination will be provided by the CONAM, with the support of the consulting firm hired to assist the transition process, by designing institutional strengthening for the EUs in each sector, department and municipality, and overseeing environmental management, execution of strengthening measures and coordinated operation of the EUs. The SEAM's information systems will include data on national and regional standards, as well as information on prevention and control of pollutants. The CONAM will include a representative from the indigenous communities, and areas related to this sector will receive priority treatment during

the first stages of this program's execution. The SEAM will have the means to ensure compliance with the Law thanks to the strengthening of its standardization, licensing, supervision and monitoring functions; enforcement tasks will be coordinated and shared with the Environmental Division of the Ministerio Público.

I. External audit

- 3.39 The program's financial statements will be audited by a firm of external auditors acceptable to the Bank. During the execution period, these statements must be submitted within 120 days after the close of each fiscal year.

J. Program supervision

- 3.40 Supervision of the program's execution will be exercised through the annual work plans (AWPs), periodic progress reports and mid-term evaluation, as well as through maintenance of a database on the main performance indicators associated with the program goals.
- 3.41 The most important instrument for supervision purposes will be the annual work plan, which will define the principal goals for each year of the execution period and evaluate the progress achieved under the activities carried out in the preceding year. **Prior to the first disbursement of loan resources, the borrower must present to the Bank the Annual Work Plan** for the initial years of the program's execution, which must include an assessment of progress attained in carrying out the program's action plan. During the execution period, the borrower must present the relevant AWP to the Bank at least two months before the end of each calendar year, for the Bank's review and approval.
- 3.42 The PEU will maintain accounting records and statements separate from those of any other resources managed by the SEAM to permit identification of the source and use made of resources provided under the program. The PEU will keep the Bank informed concerning the technical and financial execution of the program by submitting consolidated semi-annual progress reports beginning in the first year of the program. Through its Strategic Planning Department, the SEAM will submit semi-annual reports to the CONAM. Given the importance of the staff selection process to proper operation of the new institution, the borrower will indicate in the semi-annual progress reports for the second half of each calendar year a description of the degree of progress in implementing the SEAM's staffing strategy, including the programs for relocation, training and re-training of personnel.
- 3.43 The program will include a mid-term evaluation based on a report which the borrower will submit 24 months from the date of signature of the loan contract, or when at least 50% of the loan resources have been disbursed, whichever occurs first. This report will serve as input for the aforesaid mid-term evaluation. This evaluation will include an assessment of the operations of the CONAM and its

technical committees; levels of participation by its representatives and the resolutions presented and approved, the speed with which the new institution is being brought on line, the degree of development of the Environmental Investment Fund, and the operation of the sectoral, departmental and municipal EUs that have received strengthening under the program. The special report must indicate any problems that have been encountered in executing the program, the corrective measures taken, and the schedule for the remainder of the execution period.

- 3.44 The Environmental Secretariat will maintain a database on the performance indicators and degree of attainment of goals for two years following the termination of the program. This will provide the means for conducting an evaluation of the impact of the program's results, should one be deemed necessary.

IV. THE BORROWER AND THE EXECUTING AGENCY

- 4.1 The borrower will be the Republic of Paraguay, and the executing agency for the program will be the Environmental Secretariat.

A. Environmental Secretariat

- 4.2 The Environmental Secretariat has been created by Law No. 1561, promulgated on July 21, 2000, and reporting to the Office of the President of the Republic, with a mandate of formulating, coordinating, executing and supervising the national environmental policy.
- 4.3 The SEAM will act as the policy-making and regulatory body for the National Environmental System (SISNAM), and will have certain direct responsibilities for directly executing environmental control policies until the departments and municipalities have been strengthened and are equipped with the legal, operational, financial and human resource instruments required to take over environmental control duties. The SEAM will also be called upon to take direct action wherever environmental issues affect areas in more than one department, involve strategic decisions, or are regional in scope.
- 4.4 The Environmental Secretariat is made up of: (i) advisory support for the Executive Secretary; (ii) support bodies including the Departments of Strategic Planning, and Finance and Administration; Legal Affairs Office and Internal Audits; (iii) four Directorates covering the following areas: Environmental Management; Environmental Quality Control and Natural Resources; Protection and Conservation of Biodiversity; and Protection and Conservation of Water Resources; and (iv) the decentralized units: Regional Environmental Centers (see organizational chart in the technical annexes).
- 4.5 The executing units for existing international technical cooperation and financing programs, and any that are signed in future by the SEAM, will be located within the Strategic Planning Department.
- 4.6 The personnel that make up the SEAM will be selected from among current employees of the agencies and institutions whose functions will be incorporated into the Environmental Secretariat. These institutions belong to two ministries, the Ministry of Agriculture and Livestock (Undersecretariat of Natural Resources and Environment, Department of Environmental Management, Department of National Parks and Wildlife, CITES-Paraguay Office, and National Fisheries Office) and the Ministry of Health and Welfare (Environmental Protection Department, a division which reports to the National Environmental Health Service, SENASA).

- 4.7 The personnel of those institutions which, on the date that the law creating SEAM was promulgated, formed part of the respective Personnel Annex will immediately become part of SEAM's initial personnel roster, with the same functions as before but without being placed permanently within the institution's new organization structure. Subsequently, all personnel will be placed in the positions allotted under SEAM's new organizational structure by means of a competitive system based on merit. All positions will be filled through this competition, including those at the management level, the only exception being that of the Executive Secretary who has already been appointed. All appointments made by the Secretary prior to the competitive examinations will be temporary in nature.
- 4.8 The total number of officials to be transferred is approximately 310, (272 in technical and administrative areas and 37 at the secretarial level) with the distribution of technical personnel shown in the following table.

**Distribution of technical personnel transferred to the SEAM, by category and institution
(as of 15 October 2000)**

SPECIALIZATION	SSERNMA	ENAPRENA	DPRH	DOA	DNPVS	CITES	DPAmb	TOTAL
Professional administrators	2	1		1	4			8
Technical experts	6	3	6	19	30	4	17	85
Professional advisors					1			1
Licensed technicians	1			2	14			17
Support staff			1	1		1	3	6
Other	3			2	1		2	8
Students, non-graduates	23	5	16	20	59	5	14	142
Vacancies		1		1	3			5
TOTAL	35	10	23	46	112	10	36	272

- 4.9 Among profession categories, the largest are: agricultural engineers, biologists, chemical engineers, and forestry engineers. A preliminary assessment indicates that the fields with the most thorough coverage are: zoning and land use regulations, watershed management, management of protected areas and conservation of flora and fauna. On the other hand, gaps were identified in the training of personnel needed for environmental supervision, monitoring, assessment and management; the economics of natural resources and management of water resources.
- 4.10 A large number of the current professional staff would not qualify immediately for the positions being opened. In order to maximize the relocation of available personnel and avoid heavy social costs, the program will invest in training and instruction for these staff members so that they have the opportunity to qualify for the positions posted. Also, the SEAM will provide re-training and training programs for support personnel and field staff in order to given them the knowledge

and skills needed to carry out the required functions under quality supervision, environmental inspection and management of protected areas.

- 4.11 However, to guarantee the adequacy of environmental quality control, impact assessment, management and monitoring services, it will be necessary for the SEAM to hire outside personnel as well. Hiring for these positions (it is estimated that some 10 individuals in this category are needed) will be by external examination based on merit and skills demonstration, to be held as soon as possible given the priority which the Secretariat will be placing on the field of environmental quality control.
- 4.12 Notwithstanding the training and re-training programs, the SEAM will receive a certain number of surplus personnel—at the time this proposal is being written it is estimated that surplus staff will number about 40 individuals (310 persons will be transferred, whereas there will be an estimated 270 positions under the optimal organizational structure, including an increase in personnel in areas where there are gaps at present, primarily in the management of protected areas). Since this number is relatively small, and because there is still some uncertainty regarding possible further decentralization of operations that could increase the number of personnel needed to cover addition functions, it was not felt necessary to organize a severance package as an incentive for voluntary retirement of transferees to the SEAM. In the event that the enhanced decentralization plan is dropped and the number of personnel currently identified as surplus cannot in fact be transferred, further consideration will be given to the possibility that the SEAM may qualify under a broader retirement package that the government has begun to discuss with a view to its application across Paraguay's entire civil service sector. Meanwhile, the SEAM will place these individuals in support positions and include them in its training programs with the hope that they may find positions in other agencies. In order to keep from adding to the number of surplus personnel, the SEAM will ensure that the number of outside hires goes no further than the 10 or so individuals indicated in the foregoing paragraph.
- 4.13 The main source of funds for the new institution is the annual allocation it will receive under the federal budget. The SEAM will also receive revenue from: charges for the services it renders, other fees and levies; the fines it imposes for violation of the country's environmental and other laws and regulations; domestic and external loans and their proceeds; contributions, donations and bequests; and the yield from bonds, commercial paper, securities and other resources transferred to the Secretariat's assets.
- 4.14 The following table shows the preliminary draft budget of the SEAM's expenditures for the year 2001, which was submitted to the Ministry of Finance for inclusion in the federal budget. This budget covers the operating requirements of the SEAM during its first year, and will be adjusted in subsequent years as the Secretariat consolidates its personnel roster.

Draft SEAM budget for expenditures in 2001

(in US\$) as of 15 October 2000

DESCRIPTION	2001
Personnel services	2,224,888
Non-personel services	723,344
Consumer goods	801,392
Physical plant	139,449
Transfers	75,857
Other expenses	46,431
TOTAL	4,011,361

B. The Environmental Secretariat as part of the SISNAM

- 4.15 The National Environmental System (SISNAM) is an integrated system made up of public and private sector agencies at the national, department and municipal levels whose areas of responsibility include the environment, the objective of which is to promote joint, harmonious and orderly action in responding and seeking solutions to environmental problems; avoiding interagency conflicts and gaps in or overlapping of jurisdictions; and working efficiently and effectively to achieve the objectives of environmental policy. The SEAM forms part of the SISNAM which, in addition to the Secretariat, has the National Environmental Council as another of its principal members.
- 4.16 The National Environmental Council (CONAM) is an interagency decision-making body charged with considering, consulting and defining the national environmental policy of Paraguay. The Council was created by Law No. 1561 of July 21, 2000, which also established the National Environmental System and the SEAM. The CONAM is made up of the Executive Secretary of the SEAM, who serves as chair of the Council; representatives of the environmental units in public agencies within the various sectors, departments and municipalities; and representatives of the trade associations, private sector manufacturers and environmental NGOs.
- 4.17 Decree No. 10579 set out regulations pursuant to Law 1561, and Decree No. 10961 amended the regulations, ensuring broad-based representation of the various sectors of society in CONAM, including a representative of the NGO network that works with indigenous communities. But exactly how CONAM representatives will be selected is not clearly stipulated in Decree No. 10961. Accordingly, prior to the first disbursement, the borrower must present a SEAM resolution establishing the

eligibility criteria for participation by representatives of the various institutions in CONAM, pursuant to Article 36 of Decree No. 10961 of October 27, 2000.

- 4.18 The duties of the CONAM will include: (i) defining, supervising and evaluating the national environmental policy; (ii) proposing rules, criteria, guidelines and standards in response to questions submitted for its consideration by the Environmental Secretariat; and (iii) cooperating with the Executive Secretary of the SEAM in the enforcement of Paraguay's environmental legislation and regulations.
- 4.19 The structure of the CONAM includes the Plenary and Technical Committees. The Council meets regularly three times a year, and may be convened for special sessions as well. Technical Committees are created by the Chair of the CONAM as required to study environmental issues on which the Council must take a decision. The main priorities of the technical committees are the environmental investment fund, decentralization of the sector's activities, and indigenous issues related to the environment.

V. FEASIBILITY AND RISKS

A. Technical/environmental feasibility

- 5.1 The three components of this program will help to strengthen the agencies that make up the newly created National Environmental System enabling them to better carry out their functions and combine efforts to achieve the objectives of the country's environmental policy. In designing the activities of this program, the principal factors required for its technical feasibility were taken into account with a view to adopting a strategy aimed at ensuring long-term sustainable development.
- 5.2 One of the key factors for promoting the operation of SISNAM will be the support provided for creation of the CONAM as the main policy-making and consultative body responsible for defining environmental policy with participation by the principal public and private sector actors having responsibility for the environment. The reorganization of the legal framework will provide the necessary regulatory instruments; the National Environmental Information System will permit access to the technical data needed for adequate decision-making; and the educational and awareness-raising activities will promote greater participation and awareness on the part of the public concerning the importance of the environment. Together, all of these activities will contribute to more efficient performance by both CONAM and the SISNAM.
- 5.3 The consolidation of policy-making functions and coordination under a single body, the SEAM with its ultimate oversight powers, will permit efficient action to control the environment. The support for implementation of the new SEAM, and the follow-up strengthening activities for its administrative, financial and technical operations, are essential for creating a solid organization to serve as the operational arm of the SISNAM. And finally, strengthening will also be provided for the environmental units of key organizations in each sector, and in representative departments and municipalities within the different regions, enabling them to fulfill their responsibilities and functions in an integrated system for protection of the environment and natural resources throughout Paraguay.
- 5.4 The design of an Environmental Investment Fund and execution of a series of pilot projects will perform a vital function as the channel for domestic and foreign investment in the environmental sector, identifying demand for environmental projects, and developing the elements needed to ensure that the System becomes financially self-sustaining.
- 5.5 The program is technically viable and the proposal sets realistic conditions capable of effective execution in that the actions called for are known quantities that have already been carried out successfully in other countries.

- 5.6 The program is feasible from an environmental standpoint since its main strategy seeks to find ways to ensure efficient management of the country's natural resources. By contributing in large measure to institutional development within Paraguay's environmental sector, the program will play a vital role in furthering government reforms and sustainable economic growth in Paraguay. Unregulated exploitation of natural resources in past years makes it necessary to establish a system of the sort proposed here, which involves all of the country's socioeconomic agents in the process of preserving the country's natural resources. The new National Environmental System will also provide an institutional and legal framework for dealing with current environmental issues and future projects to be financed with resources from the Bank and other international lending agencies.
- 5.7 The program is expected to produce the following positive environmental and social effects: (i) reduction in direct adverse effects produced by specific projects through better application of EIAs; (ii) reduction of indirect effects of development through improved environmental planning and the establishment of the CONAM as a forum for discussion and solving of conflicts that arise between the national environmental strategy and other policies, plans and economic programs of the government; and (iii) contribution to conservation of Paraguay's natural resource capital as one of the main pillars of sustainable economic development.

B. Institutional Feasibility

- 5.8 The proposed design -- with a project executing unit (PEU) staffed by qualified technical personnel, plus specialized technical assistance in the area of contracting and procurement -- guarantees efficient execution of the program with well-defined responsibilities assigned to the different participants. The PEU will carry out planning, coordination and program execution activities, and will be aided by the Coordination Committee which will ensure integration of the program with the different areas of the SEAM.
- 5.9 The PEU will use the resources of the PPF to hire specialists in the areas of human resources and project operations in the first stage of the program, and afterwards to recruit one consulting firm to provide support throughout the process of organizing the SEAM, and another to assist with procurement procedures.
- 5.10 The implementation of the SEAM is the activity which will require the greatest attention to institutional coordination, since it will combine various offices transferred from the MAG and SENASA from the Ministry of Health and Welfare. And since the SEAM will be responsible for areas and functions that were not covered by these offices previously, it is unlikely that the personnel transferred from these pre-existing agencies will be able to meet all of the SEAM's staffing in order to carry out the Secretariat's functions.

- 5.11 A study of the SEAM's staffing needs showed that a portion of the personnel transferred from the other agencies will not have the necessary qualifications for positions with the newly organized institution. For the purposes of placing the available personnel, competitive examinations based on merit and skills will be held after these individuals have had a chance to attend training and re-training programs which will also be offered under the program and which will enable them to meet the requirements of positions with the SEAM. An external competition will be held to fill those positions for which no qualified candidates are available among existing personnel.
- 5.12 The use of an open and transparent system of competitive examinations based on merit will ensure that the new SEAM will have a highly qualified staff capable of fulfilling its environmental management tasks, which is one of the most important objectives of the program. The proposed training program will allow existing personnel to optimize their chances of finding a place in the new organization, in one of the new sectoral and departmental agencies that will receive strengthening as part of this operation, or in the private sector which will face stricter compliance requirements thanks to improved enforcement of the country's environmental laws and policies. The training program will be designed to maximize the relocation of available personnel and avoid incurring social costs, at the same time consolidating and sustaining the personnel roster of the SEAM, thus guaranteeing the technical feasibility of the operation.
- 5.13 The key elements for institutional sustainability under the system will be supplied by the program through enhancement of the technical capacity of its institutions, ensuring a suitable legal framework for the sector, and increasing public awareness and participation in the important issues involving the country's environment.

C. Financial Feasibility

- 5.14 The SEAM is entirely dependent upon revenue allocations it receives under the federal budget. For the year 2001, the SEAM will receive a budget allocation based on the agencies of the MAG and SENASA being transferred to the Secretariat. This amount is in line with what the SEAM will need for normal operations in its first year, after which its allocations will be adjusted in successive years in keeping with the consolidation of its personnel roster which is its main expenditure.
- 5.15 With respect to the local counterpart contribution, the amounts required for adequate execution of the program depend on the availability of resources, on the one hand, and on the ability of the executing agency to access the necessary funds quickly, on the other hand. On the first point, when the loan contract is ratified by Paraguay's Congress, a budget increase will also be approved which will enable the executing agency to use both the loan resources and those of the counterpart funding for the program.

- 5.16 And with respect to the inclusion of debt and local counterpart entries in the federal budget for 2001, these will be the object of a budget increase at the same time as the loan contract is ratified by Paraguay's Congress. The counterpart funding required for the program is estimated at approximately US\$400,000 to US\$550,000 per year, which is less than 20% of the total budget for the institution's first year.

D. Benefits and risks

- 5.17 The program will produce social benefits in terms of improved governance. Civil society's input will be increased at the macro level through its participation in the discussion and formulation of environmental policies and strategies under the CONAM.
- 5.18 Specifically, the program will expand the capacity of institutions to deal with indigenous problems related to natural resources and the negative impact of development programs, and to find realistic solutions to these problems. The participation of civil society at the micro (project) level will improve thanks to greater access to information on projects in preparation and in execution. The ability of civil society to participate effectively will increase as a result of greater awareness of the need for sustainable use of natural resources and recognition of the SISNAM as an instrument for dealing with environmental needs. Participation by the program's beneficiaries in efforts to solve local environmental problems will increase as a result of the pilot projects to be financed, as well as through the establishment of an Environmental Fund to finance additional environmental projects over longer periods.
- 5.19 The economic benefits of the program will be indirect. The establishment of clear and transparent rules for EIAs on projects involving the use of natural resources will have the effect of internalizing environmental costs and ensuring more efficient capital investment. The Environmental Fund will attract public and private sector capital for investment in environmental conservation, increasing the capacity to produce public ("non market") goods such as clean air, clean water and biodiversity. Public spending will be more efficient as a result of more effective enforcement of the country's environmental standards and investment in prevention of damage to the environment rather than in the restoration of degraded areas.
- 5.20 The beneficiaries of this program are those segments of society that will profit from environmental controls through greater productivity, more rational use of resources and improved quality of life. This includes those groups that will be most affected by the adverse effects of economic investment, including effects on health, quality of life and access to natural resources for subsistence purposes; as well as the general population which stands to gain from more efficient investment of public funds in environmental management. In addition, the productive sectors will benefit from the establishment of clear and transparent parameters rules for assessment of the environmental impact of their investment programs and projects.

- 5.21 The main risk involved in implementing this project is the potential weakness of institutions making up the SEAM which is only recently created. Such weakness may take the form of: (i) the lack of transparent eligibility criteria for participation by the private sector and civil society in CONAM; (ii) lack of continuity in program startup; (iii) deficiencies in the recruitment of human resources; and (iv) SEAM's unsustainability.
- 5.22 With respect to the lack of eligibility criteria for CONAM, presentation of the resolution establishing such criteria will be a condition precedent to the first disbursement of the loan (see paragraph 4.17)
- 5.23 To guard against lack of continuity in the process used to implement the program, a Project Preparation Facility (PPF) has been arranged which will ensure that the activities of the PEU will continue until the executing agency is able to meet the conditions precedent to the first disbursement and the resources of the loan become available.
- 5.24 To avoid deficiencies in the process used to incorporate personnel, a plan of action has been drawn up which lists the steps to be taken for selection of personnel by means of a competitive examination based on merit, including the provision of a training/re-training program to help existing personnel maximize their chances of becoming part of the new structure. The PEU and the Secretariat will have the support of consultants in implementing the various steps of this process until the SEAM is in operation with the necessary personnel.
- 5.25 Finally, to help ensure the stability of the institution, the program will support the design of an organization structure tailored to the minimum operation requirements necessary for the SEAM to act as head of the system, coordinating its actions with those of the sectoral, departmental and municipal organizations and ensuring that they conform to the policies established in the CONAM, which is the forum for discussion among representatives of all sectors of society. A consulting firm will be hired to assist the SEAM in the analysis of options for its economic and financial sustainability, including fees for service and various other collection methods.

**PROGRAM TO SUPPORT THE NATIONAL ENVIRONMENTAL SYSTEM
LOGICAL FRAMEWORK**

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Environmental quality improved	<p>By the year 2010</p> <ul style="list-style-type: none"> • Environmental quality indexes (water, air and soil) improved. • Deforestation rates reduced. 	<ul style="list-style-type: none"> • Data from the national environmental information system. • Environmental legislation. 	<ul style="list-style-type: none"> • Political and institutional support for the SISNAM is maintained. • Interest among institutions for participating in the SISNAM remains the same or improves.
National framework for environmental management in place and active participation of the public	<p>By the year 2005:</p> <ul style="list-style-type: none"> • 100% of approved resolutions are being used as instruments for purposes of strategic planning, and environmental control and supervision. • 30% of the departments are active in the field of environmental management. • Environmental information is available and can be easily accessed by the public. • There is public participation in environmental management programs. • The Environmental Fund has been established with sustainable sources of financing. 	<ul style="list-style-type: none"> • Environmental Digest. • Signed agreements and conventions. • Semi-annual progress reports and final evaluation. 	<ul style="list-style-type: none"> • Investment required under the program are carried out according to the proposed schedule. • The other donors and participants remain confident in the operation of the Fund.
<p>Strengthening of the National Environmental System (SISNAM)</p> <p>and operation of CONAM.</p>	<p>By the year 2001:</p> <ul style="list-style-type: none"> • 100% of members appointed. 	<ul style="list-style-type: none"> • Minutes of regular meetings of the CONAM. 	<ul style="list-style-type: none"> • The regulatory Decree under the law creating the SISNAM is amended to expand participation by civil society.

<p>work implemented</p>	<ul style="list-style-type: none"> • CONAM regulations approved by its members. • Two meetings of the National Environmental Council (CONAM) held. • Two technical committees established. <p>By the year 2002:</p> <ul style="list-style-type: none"> • Three annual meetings of the National Environmental Council (CONAM) held. • Two technical committees established. • Minutes and technical reports of the CONAM available on the Environmental Information System. <p>By the year 2003:</p> <ul style="list-style-type: none"> • Bill containing the Environmental Code submitted to Congress. • Environmental digest published (1000 copies). <p>By the year 2003</p> <ul style="list-style-type: none"> • Environmental Information System in operation with information available on: <ul style="list-style-type: none"> - number and category of EIAs; - number of environmental permits; - number of public hearings; - registry of potential industrial polluters; - list of endangered species; - number of fines imposed; - deforestation levels (baseline levels) - water, air, soil quality indexes (baseline levels) 	<ul style="list-style-type: none"> • Annual Reports of the CONAM. • Reports of the technical committees. • Protocol admitting Draft Legislation to Congress. • Reports of the Environmental Information System. 	<ul style="list-style-type: none"> • Sectoral organizations participating in the System. • NGOs participating and cooperating with the System. • The private sector in general is interested in the System. • Resolutions passed by CONAM are in keep with the interests and topics submitted for discussion. • Teams have been trained to manage the System. • Computer hardware on hand.
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al education actions	<ul style="list-style-type: none"> • Number of users of the Network. • Number of users accessing SEAM's homepage. • SEAM homepage updated. <p>By the year 2005</p> <ul style="list-style-type: none"> • Awareness of environmental problems increased. 		<ul style="list-style-type: none"> • The general population takes an interest in environmental issues.
ing of environmental ized and in position to uties.	<p>By the year 2005</p> <ul style="list-style-type: none"> • EIAs completed for 80% of sectoral initiatives. • 50% reduction in the time for analysis and issuing of permits for projects. • 80% of large and medium-size firms included in the SEAM registry. • Environmental quality standards and guidelines for water, air and soil established. 	<ul style="list-style-type: none"> • Reports on methods, criteria and results of competitive examinations for selection of personnel on merits. • Progress reports from the SEAM. • Economic and financial reports from the SEAM. • Registry of firms. • Publication of quality control standards and guidelines. 	<ul style="list-style-type: none"> • Budgetary resources available • Personnel accept the selection system and s for the examinations called to fill positions with the SEAM. • Personnel register for the training program.
nizations strengthened and with SEAM.	<p>Year 2005</p> <ul style="list-style-type: none"> • Three new sectoral environmental units implemented. • Two existing EUs strengthened. • New structure of the National Forestry Service designed. • New structure for the Environmental Health Directorate of the MSPYBS. • New structure for the National Museum of Nature designed. 	<ul style="list-style-type: none"> • Semi-annual reports on progress and evaluation of the program. • Signed agreements. • Semi-annual reports on progress and evaluation of the program. 	<ul style="list-style-type: none"> • Sectoral agencies join the SISNAM.

<p>and municipalities and acting jointly in carrying ental controls.</p>	<ul style="list-style-type: none"> • Six Departments have trained personnel, equipment, and environmental, operational and administrative procedures. • 5 municipalities have trained personnel, equipment and environmental, operational and administrative procedures. • 11 shared-supervision agreements signed with departments and municipalities. 	<ul style="list-style-type: none"> • Shared-supervision agreements between the SEAM, departments and municipalities. • Semi-annual reports. 	<ul style="list-style-type: none"> • Department and municipalities are interested in receiving technical assistance on environmental issues.
<p>Environmental Investment Fund Environmental Investment and tested.</p>	<p>By the year 2004:</p> <ul style="list-style-type: none"> • Institutional, economic and financial proposal for Fund complete. • Operating regulations approved. • 10 pilot projects prepared and in execution. 	<ul style="list-style-type: none"> • Semi-annual reports on progress and evaluation of the program. • Semi-annual progress reports on the Fund. • Progress reports on projects approved. • Final reports on the execution of projects. 	<ul style="list-style-type: none"> • Availability of private and foreign resources for environmental projects. • A sufficient number of proposals meeting the requirements are submitted. • Transparency principles are adhered to in the design of the Fund.

GENERAL PROCUREMENT SCHEDULE

ITEM	Contracts	TOTAL COST (US\$)	FINANCING		METHOD	PUBLICATION semester
			IDB	LOCAL		
1 Construction Works		250,000				
1.1 Rehabilitation of SEAM Headquarters	1	100,000		100	LCB	II 2001
1.2 Remodeling of National Museum of Natural History	1	150,000	100		LCB	II 2001
2 Goods		1,480,405				
2.1 Computer hardware	2	360,000	100		LCB	II 2001 - II 2002
2.2 Communications equipment	2	39,330	90	10	RB	II 2001 - II 2002
2.3 Office furnishings	2	58,575	90	10	RB	II 2001 - II 2002
2.4 Utility vehicles	3	663,000	77	23	ICB	II 2001 - II 2002
2.5 Specialized measuring equipment	1	279,500	77	23	ICB	II 2002
2.6 Satellite imaging	1	80,000	83	17	LCB	II 2001
3 Services		4,814,240				
3.1 Training abroad	2	80,000	100		ICB	II 2002
3.2 Local training	10	637,000	100		LCB	II 2001 - II 2004
3.3 Procurement consulting	1	198,000	100		LCB	II 2001
3.4 SEAM transition consulting	1	408,000	100		ICB	II 2001
3.5 Consulting on policies, laws and regulations	1	380,000	100		ICB	II 2002
3.6 Consulting on environmental management	1	860,000	100		ICB	II 2002
3.7 Consulting on environmental information system	1	194,000	100		LCB	II 2002
3.8 Consulting on environmental education	1	198,500	100		LCB	II 2002
3.9 Consulting for PEU and technical coordination	several	913,440	91	9	LCB	II 2001 - II 2005
3.10 Specialized consultants	several	330,000	90	10	LCB	II 2001 - II 2005
3.11 Consulting for design of Environmental Fund	several	126,000	100		ICB	II 2001
3.12 Consulting on Environmental Fund projects	several	124,300	93	7	LCB	II 2001 - II 2005
3.13 Consulting for program evaluation	2	60,000	100		LCB	II 2003 - II 2005
3.14 Advertising	4	305,000	100		LCB	II 2001 - II 2005
Total		6,544,645				

RB Restricted Bidding

ICB International Competitive Bidding

LCB Local Competitive Bidding

PROPOSED RESOLUTION

**PARAGUAY. LOAN /OC-PR TO THE REPUBLIC OF PARAGUAY
Program for the Support of the National Environmental System**

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Paraguay, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a Program for the Support of the National Environmental System. Such financing will be for the amount of up to US\$8,000,000 or its equivalent in other currencies, except that of Paraguay, which are part of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Financial Terms and Conditions" of the Executive Summary of the Loan Proposal.