

NATIONAL ENVIRONMENTAL PROGRAM (PAN)

(PN-0122)

EXECUTIVE SUMMARY

Borrower and guarantor:	Republic of Panama	
Executing agency:	National Environmental Authority [Autoridad Nacional del Ambiente] (ANAM)	
Amount and source:	IDB: (OC)	US\$15.8 million
	Local:	US\$6.8 million
	Total:	US\$22.6 million
Financial terms and conditions:	Amortization period:	20 years
	Grace period:	4-1/2 years
	Disbursement period:	4-1/2 years for the resources allocated for the final audit and evaluation; 4 years for the other resources
	Interest rate:	variable
	Inspection and supervision:	1%
	Credit fee:	0.75%
	Currency:	U.S. dollars from the Single Currency Facility
Objectives:	<p>To develop the capabilities of ANAM and of the Interagency Environmental System, strengthening priority aspects of environmental management and implementing a financing mechanism to support community environmental initiatives.</p> <p>The specific objectives of the program are to: (a) support activities for restructuring and institutional strengthening and improve environmental management capabilities, making it possible to implement the Law on the Environment and begin a process to decentralize management; (b) develop and implement policies, regulations and basic environmental management tools for the implementation of Law 41; and (c) support the financing of environmental improvement initiatives that make it possible to address community priorities, prepare studies, and formulate and execute environmental investment projects in areas and on issues not covered by existing resources.</p>	

- Description:** The first stage of the program aims to address those activities considered of priority importance within the process of implementing Law 41 and the national strategy for the environment. The main goals proposed for the program are:
- a. to provide ANAM the technical, legal and financial capacity to discharge its new mandate and establish an interagency environmental system with sufficient capacity to implement Law 41, including strengthening of the 10 priority Sectoral Environmental Units (UASs);
 - b. decentralize environmental management and implement through pilot projects in one province, three municipalities and one *comarca* [indigenous district];
 - c. formulate 19 implementing regulations for Law 41;
 - d. develop environmental management tools, such as the following:
 - a uniform set of environmental impact assessment (EIA) regulations at the national level, including the corresponding manual of procedures;
 - an environmental land-use plan;
 - environmental quality standards (6), setting limits in critical areas (water, air, solid waste);
 - formal and nonformal national environmental education plan, and plan for creating the human resource capacity to keep up with the management process at the national, regional and local levels;
 - environmental supervision and inspection capacity, including the mechanisms and incentives for clean production;
 - National Environmental Information System (SINIA) established at ANAM and within the Interagency Environmental System;
 - Environmental diagnosis of the industrial productive sector, including the regulations on proactive environmental management tools.
 - e. environmental investments made and executed by the communities involving environmental areas and issues to which the latter have attached priority.

To achieve the proposed objectives, the program has been structured in three components:

Component I. Strengthening of ANAM, the Interagency Environmental System, and decentralized management (US\$8 million)

The activities under this component are structured as four specific projects: (a) **institutional strengthening of ANAM**, including its 12 regional offices, based on a modern information and communication system, along with equipment therefor; (b) **strengthening the interagency system and the Network of Sectoral Environmental Units**, including the establishment and equipping of the Network of Sectoral Environmental Units, the creation of an information system for environmental management easily accessible to all levels, both public and private, and the preparation of an environmental land-use plan; (c) **strengthening of decentralized environmental management**, in order to lay the foundation for a process of decentralization in five local governments as pilot projects; and (d) **environmental education and public awareness building**, including formal and nonformal environmental education campaigns.

Component II. Development of environmental management policies, regulations and instruments (US\$7.6 million)

This component has been structured as five specific projects: (a) **adjustment and implementation of sectoral and general environmental policies and regulations**, including the preparation and entry into force of policies and regulations designated as priorities for this first stage, as well as studies for preparing specific policies and plans of action, valuation of environmental services, and design of financing mechanisms that provide for sustainable management; (b) **mechanisms for the environmental assessment of projects**, including implementing an evaluation, audit and environmental supervision and inspection system; (c) **mechanisms for pollution monitoring, control and inspection**, including implementing policies by sector, along with clear mechanisms for penalties and incentives; (d) **formulation of policies and standards for environmental quality and emissions** for critical priority areas, such as water, air and solid waste; and (e) **promotion of clean development**, in order to promote the adoption of clean technologies and of environmental management and mitigation plans (PAMAS) in the industrial productive sector.

Component III. Environmental management initiatives (US\$1.75 million)

This will contribute to the execution of various community-generated environmental improvement initiatives with high social impact, through: (a) allocation of preinvestment resources to energize and encourage access to existing sources of financing for investments; and (b) investments to address local needs related to environmental areas and issues not covered by existing resources.

The preinvestment resources (US\$250,000) will act as an energizing mechanism (16 initiatives averaging US\$15,000 each) to support the preparation of a greater number of environmental projects that could be financed with resources from the program or from other funds available in the country. Investment resources (US\$1.5 million) will be directed so as not to compete with other existing financing sources and will be targeted to very specific environmental activities (30 projects averaging US\$50,000). The resources would be nonreimbursable and in both cases the beneficiaries of the projects would contribute a minimum of 10% for preinvestment projects, and 20% of the total cost in the case of environmental investments. Local communities, nongovernmental organizations (NGOs) and municipalities would be the primary beneficiaries of these resources, which would be geared to demand.

The resources will be targeted to environmental initiatives for areas identified as critical, such as: (a) environmental quality (solid waste management, waste water, construction and/or improvement of municipal green areas and parks, cleanup of watercourses, mangroves and beaches); (b) natural resources (rehabilitation and protection of water sources for rural water supply systems, ecotourism projects, conservation and sustainable use of natural scenic areas, maintenance of wetlands and reefs, mangroves, soil recovery and sustainable management, projects for community or private management of protected areas); and (c) prevention of natural disasters.

The environmental management initiatives will be governed by Operating Regulations, which will include the criteria needed for the allocation of resources, both for preinvestment and for investment. A portion of the resources of this component will be used to support the strengthening of environmental management with initiatives identified in the strategic plans of the pilot projects for decentralization.

The Bank's country and sector strategy:

The Bank's country strategy is governed by four general guidelines: (a) expanding the benefits of social policy; (b) promoting sustainable development; (c) fostering continued growth; and (d) strengthening governance. This operation is consistent with the above strategy, given that it contributes to the improved use of natural resources, furthers the modernization of the regulatory and institutional framework in which productive activities are implemented and promotes sustainable development.

Environmental and social review:

The operation would have a positive environmental impact, since it is specifically designed to support the country in implementing the General Law on the Environment and the national environmental strategy, through the strengthening of ANAM and of the Interagency Environmental Management System. The investments that would be financed as environmental management incentives would be selected on the basis of their positive environmental contribution and, if appropriate, would have a plan to mitigate secondary negative effects (paragraphs 4.13 and 4.14).

Benefits:

As a direct result of the program, the country will derive the following benefits: (a) it will have basic management tools needed to address the enormous challenges of economic growth in the context of globalization, particularly when the country assumes the management of the Panama Canal and the new areas and infrastructure that are reverting; (b) greater efficiency in public management will be achieved, moving from a bureaucratic and obsolete form of natural resource management to one that is modern and dynamic; (c) functioning environmental information systems will be in place that support decision making, both public and private; (d) the civil population will become more educated and environmentally aware; and (e) it will be demonstrated that, at the community level and with small investments, it is possible to have significant social and environmental effects that will give more credibility to management.

The great benefits of the proposed operation have to do with solving the problems presented, which affect, above all, the health and quality of life of the population and compromise natural resources for future generations. As a result of implementing the program, the management tools will, in the future, help control, reverse and mitigate the damage associated with water and air pollution, municipal solid waste, toxic waste, degradation of soils, forests, loss of biodiversity and of coastal marine resources, etc.

From another perspective, an additional benefit of the program is the more efficient use of public and private investment. Environmental policy will allow for all economic activity to internalize the environmental variable, and the social impact of the investments will be maximized. At the same time, the environmental management system

will create a favorable setting for domestic and foreign investment opportunities, through the organization and simplification of the ground rules and through the impetus that environmental attributes and natural resources would acquire as a means of generating revenue.

Risks:

Restructuring of ANAM. One immediate risk of the program relates to the potential problems that the government could face in implementing the restructuring plan outlined for ANAM. In this regard, through the program: (a) the approval of ANAM's new structure will be secured by MEF executive decree; and (b) ANAM will be supported during execution so that it has program resources, allowing it to begin implementing the new structure that has been designed and agreed upon.

Agencies' management capacity. The program's success assumes that the agencies will be effective in carrying out their functions of control and supervision, in accordance with the regulations of the Law on the Environment. This involves a timely strengthening of the current ability of the agencies and UASs with functions that are vital to environmental management. In order to reduce this risk, agreements with the agencies will be signed and a coordination and monitoring mechanism will be established at ANAM, in order to guarantee the resources to execute the activities designed and allow for effective interagency coordination, with the corresponding support and commitment on the part of the government.

The country's fiscal constraints. The current government has demonstrated to the Bank that this operation has high priority, despite the country's fiscal constraints, which could affect the allocation of the local contribution. However, the program's design indicates that operating expenditures will remain constant and that the increases in revenue are sufficient to absorb the counterpart funding needs required by the program.

Special contractual clauses:**A. Conditions precedent to the first disbursement of the loan**

1. Establishment by ANAM of the program's Operational Planning Unit (OPU) and the hiring or appointment of the minimum staff needed to start program execution, as previously agreed upon with the Bank (paragraph 3.6).
2. Presentation, to the satisfaction of the Bank, of agreements incorporating environmental management signed with at least three agencies in the Interagency Environmental System (paragraph 2.10).
3. Signing of the agreement between ANAM and the consulting firm that will support and train ANAM in the administration and execution of the program (paragraph 3.3).

4. Approval of the new ANAM structure, by executive decree (paragraph 2.7).

B. Special conditions precedent to the disbursement of resources for the execution of Component III – Environmental Management Initiatives.

1. The signing of the agreement between ANAM and the specialized agency for the administration of the component's environmental investments and implementation of the two sets of Operating Regulations, after review and approval by the Bank (paragraphs 2.34 and 3.3).

C. Disbursements to begin the program's activities

1. It is recommended that the disbursement of up to US\$400,000 be permitted, once the conditions precedent indicated in the General Conditions – Article 4.01 (a) legal report; (b) appointment of staff; (e) chart of accounts – have been met, in order to begin the execution of the program with prioritized activities (paragraph 3.32).

D. Other conditions

1. Annual meetings for program monitoring (paragraphs 3.35 and 3.36).
2. Midterm evaluation (paragraph 3.39).
3. Reimbursement of retroactive expenditures for up to US\$100,000 is proposed, charged to the loan (paragraph 3.33).

Poverty-targeting and social sector classification:

This operation does not qualify as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704).

This operation also does not qualify as a poverty targeted investment (PTI) (paragraph 4.15).

Exceptions to Bank policy:

See Procurement of goods and services.

Procurement:

The procurement of goods and services, the construction of works and contracting of consulting services will be carried out in accordance with standard Bank procedures, with the exception referred to at the end of this paragraph. International competitive bidding will be used for procurement of goods of over US\$350,000 and for contracting of consulting services for amounts over US\$200,000. The largest of the

works relates to work space improvements for ANAM, the cost of which will be less than US\$300,000. Amounts below those established in the loan contract for international call for proposals or bidding will be governed by the simplified procedures that will be incorporated as Annex D to the contract, summarized in paragraph 3.28.

As an exception to standard Bank procedures, it is proposed that the least cost method of selecting consulting services be used (paragraph 3.29).

I. FRAME OF REFERENCE

A. Background

- 1.1 Geopolitical aspects. The Republic of Panama has a surface area of 75,517 sq. km. and a population of 2.7 million (1997), of which 54% live in urban areas and 46% in rural areas. The urban population has been increasing at the rate of 3.7% per year, while the rural population has been growing at a rate of 1.9% annually. The country is divided, from a political-administrative point of view, into nine provinces, 67 districts or municipalities, four indigenous reserves (*comarcas*) and 549 *corregimientos*. Both the municipalities and the *comarcas* have autonomous governments.
- 1.2 Panama has unique natural conditions, characterized by the country's excellent geographic position in the American continent, with great wealth in natural resources and a favorable geologic make-up. Twelve of the 30 life zones described for the world exist in Panama, with the most extensive being the tropical rain forest (40.4% of the land is covered by forest), which fosters a rich and varied biodiversity. In addition, there is a variety of habitats, such as coral reefs, mangroves and wetlands, making the country an idea place for wildlife and ecotourism. The National System of Protected Areas (SINAP) makes up 25% of the national territory (1.9 million ha).
- 1.3 Social and poverty aspects. The study on quality of life, produced by the Ministry of Economy and Finance (MEF), indicates that for 1997 there were approximately 1,015,000 people with incomes below the poverty line, representing 37% of the total population. Rural poverty is strongly evident in areas where there is the greatest degradation of natural resources, primarily soil, due to nonsustainable agricultural practices, such as extensive farming and nomadic herding. Urban poverty is localized in human settlements known as emergency districts, without adequate public water supply, sanitation and garbage collection services, manifesting a high degree of deterioration in environmental quality.
- 1.4 Economic aspects. In recent years, the country has become part of the regional and global economic trends to reduce the participation of the State in the production of goods and services, strengthening its regulatory role and promoting private investment, in order to increase levels of investment, achieve greater productive efficiency and generate funds to create a trust for economic and social development. The GDP grew by 4.7% in 1997, 3.9% in 1998, and growth for 1999 is estimated at 4.0%. The positive economic performance experienced by the country is partly the result of economic liberalization and the market economy model. The vitality of an open market economy imposes additional demands and new challenges on the use of natural resources.
- 1.5 At the same time, the quality of the natural resources and the environmental attributes are, in themselves, a source of opportunity and economic growth. In

Panama, the need to incorporate the environmental dimension in economic and social policy is a given, and is a result of the requirements for growth needed to meet the demand for work and for the production of goods and services generated by a population seeking to better its quality of life. The openness to private investment will allow entrepreneurs to place their investments and incorporate technologies so as to improve the efficiency of industry (clean technologies) and maximize the opportunities the country can offer. The development of innovative activities, such as ecotourism, carbon capture, development of biotechnology and bioprospecting will need to take account of the fact that expansion into wider markets imposes challenges of access in terms of quality standards that are increasingly demanding with respect to environmental aspects.

B. Importance of environmental management to the development of the country

- 1.6 The Constitution contains a chapter that embodies the right to a healthy environment. In order to develop constitutional standards, the country has promulgated, through the years, a set of laws defining institutional participation at the national and local levels regarding the management of natural resources. In practice, however, specific actions to prevent, mitigate and monitor environmental problems were, for various reasons, relegated to second place.
- 1.7 At present, the country's environmental problems are evident at both the urban and rural levels. Deforestation, erosion and loss of soil productivity, and the exhaustion and contamination of water resources are processes of environmental degradation that are increasing in the watersheds and are reaching serious levels in the Canal and Bayano River basins, and in several basins in the western part of the country.
- 1.8 At the urban level, pollution primarily affects the cities of Panama City and Colón, where 47% of the country's population is concentrated. It is estimated that more than 60% of wastewater is discharged with no treatment; the inadequate management of solid and liquid waste is notable, along with the growth of urbanization and the over-concentration of population; the discharge of toxic substances in the environment by industry is not being monitored, with the situation aggravated by the use of obsolete technologies and the increase in vehicular traffic, causing congestion and atmospheric pollution.
- 1.9 There is a marked concern among the people about pollution in bodies of water and in the air, pollution from solid waste and from noise that are the by-products of uncontrolled urban growth. The discharge of municipal and industrial water has polluted the main bodies of water, the most worrisome example being the pollution of the Panama Bay, as well as the pollution of some beaches and coastal resources. Together, these aspects have contributed to the deterioration of natural resources and quality of life of the main urban centers. At the same time, economic activities that do not internalize the environmental variable and limit sustainable development on a long-term basis, including international business and trade opportunities for the

country that increasingly depend on a healthy environmental framework, have been allowed to develop in an uncontrolled manner, due to a lack of regulation.

- 1.10 At present, it is widely recognized that the system of environmental management to be found at innumerable sectoral public institutions suffers from serious institutional problems, such as leadership, management, environmental policy, organizational structure, allocation of resources, and interagency relationships. In summary, all of the diagnostic studies conclude that the roots of the problems that have been identified are: (a) inadequate legal and regulatory framework: despite the fact that the country has several laws and regulations related to natural resources, there has not been a defined policy for the efficient management and protection of natural resources, nor are there quality standards and clear and enforceable rules; (b) inadequate system of environmental management, given the lack of appropriately defined authorities and functions; (c) centralized and bureaucratic institutional structures, unfolding in a context of financial weakness and organizational and functional lack of coordination; (d) lack of reliable environmental information and of the dissemination of such information for decision making and for the education of the people; (e) low levels of environmental education and awareness among the various segments of the population and policy-setting groups; and (f) an absence of mechanisms to effectively incorporate the needs of the communities and of civil society on issues of direct concern to them and on which they can take effective steps.

C. Progress achieved in the development of environmental management

- 1.11 In November 1997, the government agreed with the Bank to implement a work plan to address a range of environmental issues of priority importance to the country. This plan is financed by the Bank and by a donation from Japan (Loan 1090/OC-PN and ATN/JF-6139-PN, for a total of US\$860,000), and is promoted by ANAM. To date, this has allowed progress to be made in the following specific activities: (a) development of a national environmental strategy (ENA); (b) approval of the Law on the Environment and establishment of the National Environmental Council; (c) preparation of the proposal for institutional reengineering of the Institute of Renewable Natural Resources (INRENARE); (d) progress in coordinating the regulations of the Law on the Environment; and (e) structuring of the National Environmental Program (PAN), which is the subject of this document.
- 1.12 In July 1998, the government promulgated the General Law on the Environment (Law 41) and created the National Environmental Authority (ANAM), based on the capabilities already existing at the former INRENARE, as the State's governing autonomous institution on environmental matters, and with functions of enforcing the national environmental policies, laws and regulations, jointly with other public institutions that make up the Interagency Environmental System. Following approval of the law, the National Environmental Council was installed and work was begun on creating the National Consultative Commission.

- 1.13 ANAM formed working groups to prepare the ENA, with the aim of ensuring that the operation to be structured meets real needs and is compatible with the needs and actions arising from the various activities being undertaken in the country. In order to prepare the ENA, 34 national-level consultative meetings were held, along with workshops with ANAM's administration, the community, institutions and NGOs at the national, regional and local level. In May 1999, the government approved, through the Cabinet, the ENA, which defines a framework of policies, actions and instruments for environmental protection, conservation and recovery. The ENA serves as an instrument of public policy, defining environmental quality and management goals with a 5-, 10- and 20-year perspective. At the same time, the government, as provided for in Law 41, through ANAM, published the first Report on the Status of the Environment in the Country, on August 26, 1999.
- 1.14 At present, the government, based on the reengineering studies, is in the process of approving a new organizational structure and incorporating ANAM in the Civil Service of the public sector. In addition, ANAM is carrying out a set of actions designed to define the requirements for deploying the Interagency Environmental System, according to the mandates of Law 41. In tandem with this, ANAM, with the assistance of the Fundación Andes and financing from USAID, is moving forward in the process of issuing implementing regulations for Law 41. The proposed regulations are in the process of being approved, and include the following: (a) environmental impact assessment; (b) citizen participation; and (c) environmental quality standards. As can be seen from the progress achieved, ANAM has launched a significant effort to meet the great, new challenges posed by Law 41. It is vital to support the continuity of this work, through financing the operation being proposed in this document.

D. Challenges posed by the implementation of Law 41 and the ENA

1. Institutional strengthening and planning

- 1.15 The lack of a proper definition of powers and functions, causing confrontation, usurping and overlapping of functions and responsibilities, as well as the tendency for entities to act individually, will be overcome in implementing Law 41, through the establishment of basic standards and principles that will govern the actions of the various sectors and geographic levels for environmental protection, conservation and recovery. All of the existing legal regulation has been restructured with the approval of Law 41, which creates ANAM, establishes the National Environmental Council, an Interagency Environmental Coordination System and the National, Provincial, *Comarca* and District Consultative Commissions, with extensive participation on the part of civil society. As a top priority, it is essential to establish and strengthen the environmental management bodies envisaged in the law and begin a gradual process of decentralizing management.

- 1.16 Law 41 mandates the establishment of an administrative structure that allows ANAM to fulfill its responsibilities of protection, conservation and recovery of natural and environmental resources, in the context of using these resources in a sustainable manner and integrating this with the country's social and economic objectives. Despite the progress the law has provided in creating ANAM (with approximately staff of 1,146, most in administrative and support positions), this authority is extremely weak and has an inappropriate and inadequate institutional structure for assuming the new responsibilities required; in particular, there is a well-recognized absence of technically qualified human resources for the new management tasks, scant use and development of computer tools and no communication networks, making it far more difficult to carry out the work and make decisions. The current administrative-financial and management systems are not appropriate for facing ANAM's new responsibilities and challenges. This affects the power of decision making, as well as the level of self-sustainability in revenue generated by the institution itself, which currently represents 20% of operating expenditures, a figure that could double.
- 1.17 The assistance of external donors in regard to environmental matters is directed toward small projects, particularly the management of protected areas, research and pilot projects in specific areas, and training in areas of forestry and watershed management, without any emphasis on global issues facing the sectors and the institution. The institution's broad initiatives have barely begun, and deal with three projects now being implemented: (a) rural poverty and natural resources, recently approved by the World Bank; (b) the GEF's Mesoamerican biological corridor; and (c) sustainable development of Darién.
- 1.18 The new administrative structure will be constructed on the basis of the human, technological and financial resources and the equipment, materials and infrastructure from the former INRENARE, thus requiring the development of institutional reengineering concepts, including a reassessment of the existing situation, with the goal of enhancing its quality and efficiency. This institutional adjustment envisages, to the extent possible, the development of structures that will allow for the establishment of specialized (tertiary) environmental services, some of which could be autonomous or para-State bodies, including even the possibility of eventually turning these over, via concession, to organizations in civil society and, particularly, in the private sector.
- 1.19 In terms of the Interagency Environmental System (SIA), an improvement in the management capabilities at priority institutions is needed, in accordance with the mandates of Law 41, in order to solve problems associated with: lack of articulation and coordinated implementation between the SIA and ANAM, insufficient degree of hierarchical structure and limited access to institutional decision making at the Sectoral Environmental Units (UASs); lack of sufficient and qualified human resources; lack of UASs in important sectors; and limited technological resources and equipment at the SIA institutions.

- 1.20 In addition, in order to generate local abilities to give incentive to the decentralization of environmental management, so as to link local environmental management with national policy and the associated environmental strategy, it is necessary to overcome critical aspects at the subnational level related to the lack of organization, human and technical resources and equipment within the provincial and *comarca* governments and within municipalities, in order to achieve effective environmental management in their respective areas.

2. Creation and development of environmental management instruments

- 1.21 On the basis of the diagnostic studies conducted, the following needs have been identified: (a) incorporate environmental education in the National Education Plan and in the formal educational curricula currently being implemented; (b) develop an operational information-communication strategy for environmental management and build awareness within the different segments of society; (c) prepare an environmental diagnostic study of the private sector that facilitates the integration of the private sector in the tasks of managing and monitoring negative impacts on the environment, especially in the area of providing greater incentives for self-monitoring; (d) establish environmental information systems, communication networks, a geographic information system and data bases; and (e) prepare a draft plan for environmental land-use planning to overcome the overlapping of institutional powers and conflicting territorial objectives over the same region or territory at the point when resources are being managed, particularly in regard to protected areas, coastal areas, watersheds and fragile and vulnerable areas.
- 1.22 On the basis of Law 41, the environmental management instruments are clearly defined and their implementation will be the result of a process of interagency coordination and consultation with citizens. This law also provides a set of instruments for prevention, correction, inspection, education, information and incentives, etc., that makes it possible to deal with the country's main environmental challenges. Furthermore, the law mandates the development of a set of standards, environmental regulations and procedures which, in addition to defining powers and delegating responsibilities, establishes the environmental standards and procedures that will regulate the functioning of the institutions involved in the environmental process and the unfolding of productive activities under the principle of using a gradual approach.
- 1.23 In close coordination with the responsible institutions that will be part of the SIA, it is necessary to develop instruments for environmental management, which are key elements in economic growth from the perspective of sustainable development of the country. As a high priority, it is necessary to implement the following instruments: a system of assessing environmental impact; quality and emission standards; information systems; citizen participation; incentives and economic valuation; environmental audits; mechanisms for clean development, etc.

3. Environmental investments

- 1.24 The prospects for 20 years from now, as defined by the ENA, can only be viable to the extent that there are appropriate management instruments and that a mechanism for sustainable financing is created. The ENA envisages that the basis of financing will be linked to the economic value of environmental services and of natural resources, which need to be developed in a way that integrates them with the formulation of laws, policies and standards that affect each resource in its particular geographic area. Among the large-scale investments the country needs to make are: (a) protection and management of the Panama Canal basin; (b) the Bayano River basin; (c) cleanup of the Panama Bay; and (d) protection and management of the national parks, which should incorporate, as part of the regulatory structure, guaranteed financing mechanisms based on the environmental services they generate. In the short term, it is important to lay the foundation for beginning to develop financing alternatives for environmental management.
- 1.25 The communities also have numerous environmental needs; there are national initiatives that require resources for conducting studies and for technical formulation of local projects, as well as investment resources for supporting priority activities for the community. Based on the results of the consultative workshops and the characteristics of each community or organization, the major emphasis of environmental initiatives was on: protection of water sources; water quality and waste disposal; increase and adaptation of green and protected areas; public clean-up at the municipal level; and land-use planning.
- 1.26 There is a variety of financing mechanisms in the country for community environmental projects, which need to be structured and directed, if possible, to those areas with the greatest impact, in order to address their real needs. Among the projects that finance environmental activities are: the FIDA Environmental Fund, the "Support for the Competitiveness of the Productive Sectors (SENACYT)"; "Modernization of the Agricultural Sector (MIDA)"; "Social Emergency Fund (FES)"; "Rural Poverty and Natural Resources (MIDA-ANAM)," and the "Panamanian Atlantic Biological Corridor," etc. In general, these resources, in terms of their environmental components, are under-utilized, due to a lack of dissemination and of appropriate criteria to satisfy existing demand.
- 1.27 A priority short-term challenge is to facilitate the access of communities to these resources. In order to do this, it is necessary to increase the ability to prepare projects, increasing the direct participation of civil society organizations, especially nongovernmental organizations (NGOs) and grass-roots organizations in the management and solution of their environmental problems. At the same time, it is clear that there are environmental issues critical to the communities that are outside the geographic and thematic area of existing projects, thus it is important to conceive supplementary financing mechanisms.

E. Program concept

- 1.28 The institutional and environmental diagnosis indicates that it is necessary to design a program with a long-range strategic vision that makes it possible to define, by stages, in a flexible and viable manner, the implementation of the General Law on the Environment and of the ENA. Obviously, the needs that have been identified to achieve full environmental management are far more extensive than those presented in this operation and would require many years to be fully implemented. This operation will also conform to the limit established by the government for external indebtedness, the anticipated availability of local supporting resources for the execution period, ANAM's implementation capability, and the potential for absorbing the institutional strengthening in the time envisaged.
- 1.29 In the short term, it is of prime importance to move forward with a program that allows the government to concentrate its efforts in three specific areas: (a) institutional strengthening of ANAM, of the Interagency Environmental System, including the highest-priority UASs and initiating the process of decentralizing environmental management at the regional and local levels (pilot project); (b) development of standards, policies, regulations and instruments for environmental management in areas of priority to the country, ranging from: (i) reconciling and implementing general and sectoral environmental policies and regulations; to (ii) formulating and implementing EIA mechanisms, environmental land-use planning, monitoring and inspection, and preparation of uniform quality and emission standards; (c) environmental initiatives, in order to support preinvestment activities that will serve to vitalize existing resources and environmental investments prioritized by communities to address initiatives dealing with specific issues.
- 1.30 The operation being proposed would last four years and would focus on the most important challenges, as indicated above. To the extent that this stage shows positive results, a second operation could be launched, allowing for more intense efforts at the national level and an expansion of environmental management at the regional and local levels.

F. Consistency with Bank strategy

- 1.31 The Bank's strategy in the country is based on four general guidelines: (a) expanding the benefits of social policy; (b) promoting sustainable development; (c) fostering sustained growth; and (d) strengthening governance. The present operation is in consonance with the strategy outlined, given that it contributes to improved use of natural resources, advances the modernization of the regulatory and institutional framework in which productive activities take place and promotes sustainable development.

- 1.32 The country's environmental strategy makes it possible to integrate environmental issues with the inevitable challenges that the country will face in the short, medium and long term. The environmental variable is an explicit part of the following national imperatives: (a) complete the process of modernizing the economy in light of the challenges of globalization; (b) intensify the process of social equity; (c) continue to improve the democratic system; (d) integrate vulnerable groups, from a geographic and societal point of view, in the country; and (e) reconcile the needs for growth with environmental sustainability.
- 1.33 The activities envisaged in this operation are strategic, given that they seek to support the efficient enforcement of the mandates of Law 41 and of the ENA, contribute to improving the quality of life, promote priority environmental actions for the communities and continue the process of modernizing the State. This operation fulfills the objectives of the Eighth Replenishment and the activities proposed here are consistent with the strategic proposals of the Bank, particularly with those related to sustainable development and sustained growth.

G. Complementarity of the program with other donors

- 1.34 During the process of preparing the operation, there was an opportunity to review the experiences and achievements of other projects that are being implemented and are financed by other organizations, by donors and by the Bank. The execution of the proposed program will make viable the future implementation of projects of greater scope by the private sector, and will provide the tools required, in order to support the country in its current development process.
- 1.35 Complementarity with all of the other projects and initiatives in preparation and in execution is assured, particularly with the following projects: (a) National Education Program; (b) Social Emergency Fund; (c) Panama Canal basin; (d) Health Services; (e) cleanup of the bay; (f) Sustainable Development of Bocas del Toro; (g) Mesoamerican biological corridor; (h) Sustainable Development of Darién; (i) Sustainable Development of the Mining Sector. The implementation of the proposed program would allow for the integration of the projects under the same strategy, in accordance with the policies outlined by the government.

II. THE PROGRAM

A. Program objectives

- 2.1 The objective of the program is to develop the capabilities of ANAM and of the Interagency Environmental System, strengthening environmental management in priority aspects and implementing a financing mechanism to support the environmental initiatives of communities. Specific objectives of the program are to:
- a. Support activities for institutional strengthening and restructuring and for improving environmental management abilities, making possible the implementation of the Law on the Environment and the initiation of a process of decentralizing management.
 - b. Develop and implement policies, regulations and basic environmental management tools for the implementation of Law 41.
 - c. Support the financing of environmental improvement initiatives that make it possible to address community priorities, prepare studies, and formulate and execute environmental investment projects in areas and on issues not covered by existing resources.

B. Description and goals of the program

- 2.2 The program aims to move forward, in the first stage, with those activities considered to be of high priority in the process of implementing Law 41 and in the national strategy for the environment. The main goals of the proposed program are:
- a. To provide ANAM with the technical, legal and financial capacity to discharge its new mandate and establish an Interagency Environmental System with sufficient capacity to implement Law 41, including strengthening of the 10 priority UASs.
 - b. To decentralize environmental management and implement through pilot projects in one province, three municipalities and one *comarca* [indigenous districts].
 - c. To formulate 19 implementing regulations for Law 41.
 - d. To develop environmental management tools, such as:
 - A uniform set of EIA regulations at the national level, with a manual of procedures.
 - Draft plan for environmental land-use planning.

- Environmental quality standards (6), setting limits in critical areas (water, air, solid waste).
 - Formal and nonformal national environmental education plan for creating human resource capacity to keep up with the management process at the national, regional and local levels.
 - Capacity for environmental supervision and inspection, including mechanisms and incentives for clean production.
 - National Environmental Information System (SINIA) established at ANAM and in the Interagency Environmental System.
 - Environmental diagnosis of the industrial productive sector, including regulations on proactive environmental management tools.
- e. Environmental investments made and executed by the communities, involving environmental areas and issues designated by the communities as having priority importance.

C. Description of program components

- 2.3 In order to achieve the proposed objectives, the program has been structured in three components: (a) **strengthening of ANAM, the Interagency Environmental System, and decentralized environmental management;** (b) **development of policies, regulations and instruments for environmental management;** and (c) **environmental management initiatives.** These have been developed in accordance with the logical framework method, the tables of which will be part of the work plan, which specifies the program components and projects (Annex I) and includes the planned performance targets and indicators and the respective means of verification and assumptions.

1. Component I. Strengthening of ANAM, the Interagency Environmental System, and decentralized environmental management (US\$8,000,000)

- 2.4 In order to fulfill the objectives outlined for this component, its activities have been structured as four specific projects, namely: (a) institutional strengthening of ANAM, including its 12 regional offices, based on a modern information and communication system, along with equipment therefore; (b) strengthening of the Interagency System and of the Network of Sectoral Environmental Units, including: establishment and equipping of the Network of Sectoral Environmental Units; creating an environmental management information system that is easily accessible to all levels, both public and private; and the preparation of a draft environmental land-use plan; (c) strengthening of decentralized environmental management, in order to lay the foundation for a process of decentralization in five local governments, in the form of pilot projects; and (d) Environmental Education

and Public Awareness-Building, including formal and nonformal environmental education campaigns. Following this, each of the above projects will be developed in greater detail.

a. Institutional strengthening of ANAM (US\$4,300,000)

- 2.5 This project makes it possible to implement and set in motion the new organizational and operational structure of ANAM, in order to be able to fulfill all of the mandates established in Law 41 and in the national environmental strategy, through the strengthening of abilities and resources of the former INRENARE, to bring them into line with the new abilities needed for a broader and more comprehensive environmental approach.
- 2.6 The specific goals are: (a) to implement the reengineering plan (institutional restructuring, in all of its stages), including staffing needs, office and field equipment, outfitting of offices, corporate image; (b) strengthen ANAM's strategic planning processes, in order to integrate all the levels of the institution; (c) formulate and implement new administrative-financial systems and means of generating revenue; (d) implement the training plan for all levels of the institution; and (e) provide a communication system and a computer network functioning at the national level and at the regional offices.
- 2.7 To implement ANAM's new organizational structure, the following activities need to be carried out: (a) finalize the required structure of responsibilities in a period of three years, through a process of appointments, retraining of staff from the former INRENARE, voluntary and mandatory retirement and hiring of new professionals; (b) define or redefine key institutional management processes that make it possible to set into motion ANAM's organizational and operational structure in the first year, by designing of processes, analysis, and operational proposals; (c) create and maintain technical and management abilities among ANAM staff, through a plan to train former INRENARE personnel, completed in the second year, and design an ongoing training plan at ANAM; and (d) provide ANAM with the computer equipment and the office and field equipment to allow the staff to appropriately carry out their responsibilities. As a condition precedent to the first disbursement, ANAM will have approved the organizational structure of the institution through executive decree.
- 2.8 In order to carry out these activities, financing is needed for: (a) specific studies; (b) specific international advisory assistance; (c) national short-term consulting services needed for and qualified to fulfill the new functions of ANAM during the three years of the program; (d) procurement of equipment and work space improvements in accordance with the new demands (approximately 400 square meters); (e) promotion of corporate image, activities to achieve greater closeness and coordination with the rest of the Interagency System; and (f) workshops and

events for training of personnel and retraining of existing human resources at the former INRENARE.

b. Strengthening of the Interagency System and the Network of Sectoral Environmental Units (US\$2,300,000)

- 2.9 This project makes it possible to develop a gradual process of integrating the Interagency Environmental System (SIA), through the strengthening of priority sectoral institutions and coordination mechanisms, in order to: (i) facilitate the reconciling and articulation of policies, strategies and instruments for sectoral environmental management with national environmental policy and strategy, integrating a Network of Sectoral Environmental Units (RUAS); (ii) make viable the introduction of a process of environmental impact assessment; (iii) generate, process and disseminate information for environmental management; and (iv) define guidelines for environmental land-use planning.
- 2.10 Specific goals of this project are: (a) integrate and strengthen the SIA, during the first stage, as well as the 10 priority UASs, units of the Ministry of Health (MINSA), Ministry of Commerce and Industry (MICI), Ministry of Public Works (MOP), Ministry of Agricultural Development (MIDA), Ministry of Education (ME), Ministry of Housing (MIVI), the Panama Maritime Authority (AMP), the Public Services Regulatory Agency, the National Water Supply and Sewerage Institute (IDAAN), and the Panamanian Institute of Tourism (IPAT); (b) implement a National Environmental Information System (SINIA), understood to be indicators of the State of development of natural, socioeconomic and land-related components of the environment; and (c) provide a Draft Environmental Territorial Management Plan to lead the way to improved land use. **As a condition precedent to the first disbursement, ANAM will have signed agreements with at least three SIA agencies.** As a minimum, such agreements will include the following basic elements: targets for consolidating environmental impact study procedures; drafting of sector environmental strategies; participation in SINIA; preparation of an indicative plan for environmental land-use management; and clauses guaranteeing information systems maintenance.
- 2.11 In order to advance the integration and strengthening of the SIA, it is necessary to finance the following activities: (a) create or strengthen 10 priority Sectoral Environmental Units (UASs) (in accordance with interagency agreements), including the provision of equipment for automated linkage (incorporated in the EIA project), in order to have the ability to carry out joint activities with ANAM, at its respective institutions; (b) design a plan for sectoral environmental management training and for UAS management policies, aimed at the institution's technical and management staff; (c) generate and exchange information to support decision making, form an Interagency Committee for the SINIA, including the holding of workshops, training courses, design of the system (computers, software and data bases), and the implementing of a regional network, including an internet web page;

(d) prepare and publish texts on the State of the environment, including the selection of indicators and information; (e) design and implement sectoral and environmental land-use planning policies and strategies, including the preparation of a Draft Environmental Land-Use Plan; (f) conduct workshops to analyze experiences and prepare proposals for the work plan of ANAM's Environmental Land-Use Plan Unit, including the procurement of specialized equipment (data bases, software); and (g) prepare an environmental action plan for a pilot region, Bocas del Toro Province, including general environmental management of the most critical areas, with a view to the region's sustainable development.

**c. Strengthening of decentralized environmental management
(US\$620,000)**

- 2.12 This project makes it possible to help implement and set in motion environmental management in a decentralized manner, in one province, three municipalities and one *comarca*, through pilot projects that allow for gaining experience to transmit to the rest of the country.
- 2.13 Specific goals of this project are: (a) increase the environmental management ability of five local governments, namely, the municipalities of Panama (large municipality), David (medium-sized municipality), Las Minas (rural municipality), the province of Coclé and the *comarca* of Ngobe Bugle, as a pilot management experience, in accordance with their institutional abilities and responsibilities; (b) preparation of five strategic environmental management plans, based on interagency agreements (between ANAM and the local government); (c) creation and strengthening of their environmental units; and (d) support for financing these plans with resources from Component III (paragraph 2.33).
- 2.14 The activities to be developed include the following: (a) prepare a description of the environmental issues facing selected local governments, design the five strategic plans and strengthen management methods at the local level; (b) design and implement basic training plans, as required, through specific advisory assistance, workshops, seminars and courses on management, management instruments, ISO 14000 and strategic planning; and (c) support the implementation of their respective environmental units (including information systems, four professional support staff members for the municipalities, the province and the *comarca*, along with minimum equipment).

**d. Environmental education and public awareness-building
(US\$780,000)**

- 2.15 This project makes it possible to foster environmental education and awareness-building among the citizens, in order to instill values and create abilities among the citizens in general, so as to allow them to interact in their environment and contribute to the introduction of national environmental policy and strategy.

- 2.16 Specific goals of this project are: (a) incorporate environmental education in the National Education Plan; (b) design and implement the Informal Education Plan, including the Cooperation Network; (c) establish an environmental information and communication system at ANAM and a system for public recognition to those who have contributed significantly to environmental preservation.
- 2.17 Activities to be carried out in order to fulfill these objectives include: (a) incorporating cross-disciplinary environmental education in all grades in the education system, through: publishing of teaching materials and training of teachers; (b) strengthening the ME's Directorate of Environmental Education, the National Environmental Education Commission and ANAM's Office of Communication and Public Relations, through environmental management training courses; (c) implement the Informal National Environmental Education Plan, agreed upon with the social players in the public and private sectors and social organizations involved; (d) establish an nonformal Environmental Education Interagency Cooperation Network with working groups on four priority environmental issues, including the ex post evaluation of the four pilot projects; (e) strengthen ANAM's National Directorate for the Development of Environmental Culture to support the nonformal Environmental Education Plan and guide the operations of the Network; (f) define an Environmental Information/Communication strategy, with the participation of the media and of social communicators; (g) carry out pilot campaigns for dissemination on priority environmental management issues; and (h) establish systems for granting public recognition to enterprises and organizations for contributions important to the environment.

2. Component II. Development of environmental policies, regulations and management instruments (US\$7,600,000)

- 2.18 The activities envisaged to meet the objectives outlined for this component have been structured as five specific projects, namely: (a) adjustment and implementation of environmental policies and regulations at the general and sectoral levels, including the preparation and entry into force of policies and regulations designated as being of priority importance for this first stage, as well as studies to formulate specific policies and plans of action, valuation of environmental services and design of financing mechanisms to provide for sustainable management; (b) mechanisms for the environmental impact assessment of projects, including the implementation of an evaluation, audit, and environmental inspection and supervision system; (c) mechanisms for monitoring, control and inspection of pollution, including implementing sets of policies by sector, along with clear mechanisms for penalties and incentives; (d) formulation of environmental quality and emission policies and regulations for critical priority areas, such as water, air and solid waste; and (e) promotion of clean development, in order to promote the adopting of clean technologies and of the PAMAS within

the private industrial sector. Following this, each of the projects indicated will be developed in more detail.

a. Reconciling and implementation of environmental policies and regulations at the general and sectoral levels (US\$1,160,000)

- 2.19 This project facilitates the effective enforcement of the General Law on the Environment, through the preparation, discussion, approval and promulgation of priority regulations of this Law, and the reconciling of environmental policies and institutional powers on important issues.
- 2.20 The specific goals are to: (a) prepare 11 regulations expressly envisaged in Law 41¹; (b) prepare eight regulations that, while not explicitly indicated in the Law, are needed to facilitate its full enforcement²; (c) introduce sectoral environmental policies and mechanisms to overcome conflicts of jurisdiction or policy in the following key areas of environmental management: water, air, coastal marine resources and solid waste; and (d) promote economic instruments for environmental regulation in the productive and industrial sector.
- 2.21 The activities envisaged involve a number of technical studies, specialized consulting services, training activities, workshops for consultation with various sectors (industry, construction, agriculture, drinking water and sanitation, fishing, forestry, etc.), public fora or other participatory events in which discussion, debate and consensus on the content and scope of the regulations and controls issued during the process of program execution are promoted, ranging from public awareness campaigns to consultative and negotiation activities with governments, mayors and political leaders. In addition, support for ANAM is envisaged, with the hiring of high-level advisory services to: (a) conduct economic feasibility studies on proposed policies and standards; (b) value environmental services in environmental management areas critical to ANAM (water, forest resources, protected areas); and (c) develop proposals for economic instruments (taxes, fines and incentives), in order to foster compliance with environmental regulations.

¹ Implementing regulations for the law: Mechanisms for public consultation for important environmental issues (Art. 9); installation and operation of the National Environment Council (Art. 15); installation and operation of the National Consultative Commission on the Environment and provincial, *comarca* and district consultative commissions (Art. 20); the EIA process (Art. 23); the process of formulating environmental quality standards (Art. 33); the process of overseeing compliance with the EIAs, through the "PAMAS" (Art. 40); mechanisms for monitoring and supervision of environmental quality within the SIA (Art. 43); contents of the State Report on the Environment (Art. 46); procedure to make contracts for management and disposal of hazardous substances (Art. 60); procedure protected area concessions (Art. 66); setting of tariffs for use of environmental services in protected areas (Art. 69).

² Regulations on important aspects: plans for prevention and decontamination; environmental audits; plans for environmental mitigation and management (PAMAS); declaration on disasters and contingency plans; powers to oversee household, industrial and hospital solid waste; sanctions; Interagency Environmental System; and ecological damage and cleanup cost.

**b. Mechanisms for the environmental impact assessment of projects
(US\$2,880,000)**

- 2.22 This project makes it possible to strengthen the building of abilities at the institutions involved in the process of environmental impact assessment (EIA) envisaged in Law 41, in order to effectively incorporate EIA in the life cycle of the activities, works and projects which, due to their nature, characteristics and placement could pose environmental risk.
- 2.23 The goals envisaged for this project are: (a) a uniform set of regulations for the EIA process and manual of procedures implemented, including automating of monitoring and supervision of the EIAs and their respective management plans; (b) for ANAM to have the trained technical staff and basic equipment needed to fulfill its functions, including regional administrations; (c) the 10 UASs implemented, with technical ability and equipment to respond to EIA; (d) cooperation agreements with universities established, in order to implement the plan for training and instructors; and (e) EIA regulations and manual of procedures edited and published.
- 2.24 It is anticipated that the following specific activities will be carried out: (a) promulgate and introduce the EIA regulations and the corresponding manual within the public and private sectors, through dissemination seminars; (b) design and introduce guidelines for the supervision of EIAs, including procurement of equipment and software for ANAM and the 12 regional offices; (c) strengthen the UAS and the UAS Network, through specialized technical support and dissemination events; and (d) train the public and private sectors, through courses of training and instruction abroad.

**c. Mechanisms for pollution monitoring, supervision and inspection
(US\$690,000)**

- 2.25 This project makes it possible to develop ANAM's abilities and those of the Interagency Environmental System, in order to gain knowledge on, measure, monitor and oversee the environmental situation, so as to prevent environmental damage, through the formulation of an Environmental Quality Monitoring Plan for the different environmental components.
- 2.26 The goals envisaged in this project are: (a) design of a system for monitoring the quality of water in a watershed or watersheds selected on a pilot basis; (b) proposal for the implementation of the air quality and noise control plan established in Panama City and the design of a similar plan for the cities of David and Santiago; (c) registry of sources of pollution, carried out in the country's main industrial regions; and (d) have a system for certification of laboratories that provide environmental measurement services established.

- 2.27 Specific activities include: (a) design of a system for monitoring the quality of water in the main watersheds and formulating a pilot plan in one watershed; (b) prepare the studies for an air quality and noise control plan in urban areas, with measurements in Panama City and the three priority cities, including a plan for improvement of the metropolitan network and the training of officials; (c) improve the capability for inspection, including design of a national laboratory certification system; (d) design administrative mechanisms for establishing responsibilities in cases of violation of the environmental mitigation regulations and plans; and (e) design and implement a plan for inspection of sources of pollution, including the training of officials and the publication of supervision guidelines.

d. Preparation of regulations on environmental quality and emission standards (US\$1.65 million)

- 2.28 This project makes it possible to develop ANAM's abilities to coordinate processes for generating environmental standards and setting into motion the regulations provided for in the country's formal procedure.
- 2.29 The goals are: to prepare a plan allowing for agreement on six quality standards for emissions and water, air and household, industrial and hospital waste designated as having priority importance for the country in the next four years. Specific activities include: setting in motion the regulations for 6 policies, namely: (a) water quality (production of drinking water, irrigation, aquiculture, aquatic life and groundwater); (b) discharges into sewerage systems; (c) quality standards for critical pollutants in the air (CO, SO₂, O₃, NO₂ and lead); (d) regulations for the handling of urban solid waste; (e) regulations for the handling of hazardous industrial and hospital waste; and (f) review of National Regulations on Disturbing Noise.

e. Promotion of clean development (US\$1.22 million)

- 2.30 This project makes possible the preparation of policy instruments for the development of concepts in the area of clean production, in order to implement an environmental regulation plan to harmonize environmental objectives with entrepreneurial competitiveness.
- 2.31 Specific results include the following: (a) adoption of management instruments, such as environmental audits, environmental mitigation and management plans (PAMAS) and decontamination plans; (b) preparation of a registry of sources of pollution; (c) promotion of participation by the entrepreneurial sector in developing clean technologies, including the establishment of awards and public recognition.
- 2.32 Specific activities to be conducted include: (a) preparing the environmental diagnosis of the industrial sector in terms of sources of air, soil, and water pollution in the main industrial areas; (b) designing and applying diagnostic tools (environmental audits, PAMAS), decontamination plans and monitoring plans;

(c) promoting mechanisms for the promotion of clean development (ISO 14000, “green stamps” and technical assistance to industry, analysis of regulatory risk and of sanctions and incentives for controlling pollution); (d) promotion of biosafety and of clean technologies in the fishing sector; and (e) conducting of workshops for the participation of citizens and of the productive sector and for training on resolving environmental conflicts.

3. Component III. Environmental management initiatives (US\$1.75 million)

- 2.33 The objective is to contribute, by means of a pilot experience, to the execution of various community generated environmental improvement initiatives with high social impact, through: (a) allocation of preinvestment resources, in order to energize and provide incentives for accessing existing funding sources for investment; and (b) investments to meet local needs related to environmental areas and issues not covered by existing resources.
- 2.34 This component will include viable environmental activities, taking into account institutional and financial mechanisms in effect in the country, based on projects that meet the real need of communities and prioritized by the communities themselves in a regional and social context. The environmental management initiatives will be governed by two sets of Operating Regulations, to include the criteria necessary for the allocation of resources for both preinvestment and investment. A portion of the resources of this component will be used to support the strengthening of environmental management with the initiatives identified in the strategic plans. **As a condition precedent to the first disbursement for Component III, ANAM will put into force the two Operating Regulations.**
- 2.35 The resources for preinvestment (US\$250,000) will serve as an energizing mechanism (16 initiatives, averaging US\$15,000 each) to support in the preparation of a greater number of environmental projects, which could be financed with program resources or other available funds. The resources for investment (US\$1.5 million) will be targeted in a way that avoids competing with other existing financing sources and will be focused on very specific environmental activities (30 projects averaging US\$50,000 each), with the following characteristics: (a) small projects that have been identified in the ENA, for a total maximum amount of US\$75,000; (b) activities arising from the needs of the communities; (c) activities with high local visibility, which help strengthen citizen awareness; and (d) activities that create credibility in the process. The resources will be nonreimbursable and in both cases the beneficiaries of the projects would contribute a minimum of 10% for preinvestment projects and 20% of the cost in the case of environmental investments. The local communities, NGOs and the municipalities would be the main beneficiaries of these resources, which would be guided by the particular needs.

- 2.36 The resources would be targeted to environmental initiatives, in accordance with criteria established in the Operating Guidelines, for areas identified as critical, such as: (a) environmental quality (management of solid waste, waste water, construction and/or improvement of parks and municipal green areas, cleanup of watercourses, mangroves and beaches); (b) natural resources (rehabilitation and protection of sources of water for rural water supply systems, development of ecotourism projects, conservation and sustainable use of scenic areas, maintenance of wetlands and reefs, mangroves, soil recovery and sustainable management, projects for community or private management of protected areas; and (c) prevention of natural disasters (providing technical assistance and equipment to community and municipal organizations that are part of the National Civil Defense System (SINAPROC).

D. Scaling of the program

- 2.37 In order to determine the size of the program and establish corresponding costs, the results of diagnostic and assessment studies from the different consulting services contracted to support the preparation of the operation have been taken into account, bearing in mind the need to minimize the tax burden. The inclusion of minimum investments needed to obtain solutions to priority problems has been envisaged, since solving the range of environmental issues identified requires a great deal of time and resources. For this reason, it is anticipated that the different activities referred to will be handled in stages. In addition, studies that make it possible to formulate future actions for institutional strengthening and environmental management will be prepared in this operation, expanding the scope to the provincial, district and *comarca* levels.
- 2.38 Component I has been scaled on the basis of the ability of ANAM to absorb the anticipated changes and actions, based on cost estimates for: (a) implementing actions that involve implementing a new institution, ANAM in all of its stages, in accordance with the reengineering plan designed and agreed upon; (b) move forward gradually with the integration and strengthening of the SIA, with 10 institutions indicated; (c) in order to decentralize pilot project management, it was necessary to conduct an analysis of the investment needs in the five local governments selected; these were chosen on the basis of their demographic, socioeconomic and administrative characteristics, as well as on the basis of their potential management configuration in the regions they cover.
- 2.39 The component of development of policies, regulations and instruments for environmental management includes only those strategic and priority activities that facilitate meeting the short-term needs of the country. The formulation and implementation of the environmental regulatory framework is a costly and delicate process, in terms of its political and economic aspects. The costs involved in executing the priority activities was estimated, in order to assist ANAM and other

institutions during the entire process of preparation, approval and implementation of environmental quality policies and regulations.

- 2.40 In order to support the scaling of the environmental management component, an evaluation was made of the needs and requirements arising in the course of the diagnostic consultations and the ENA that were technically validated by the results obtained in the inventory of environmental studies and projects conducted as part of the program preparation. The inventory of studies identified 60 preinvestment studies and research efforts, for an approximate value of US\$5,800,000, which would cover 4% of the demand, equivalent to US\$250,000. From the inventory of environmental projects, 110 investment projects were identified, for an approximate value of US\$6,500,000. Of this demand, an estimated 25%, equivalent to US\$1.5 million, is expected to be covered (some 30 projects with an average of one project every two months). This would be implemented as a pilot project, which could lay the foundation for forming an environmental investment fund.

E. Cost and financing of the program

- 2.41 The total cost of the program is US\$22.6 million. The Bank's contribution will be the equivalent of US\$15.8 million (70%) in U.S. dollars from the Ordinary Capital's Single Currency Facility, at the request of the Government of Panama, and the contribution of the government will be the equivalent of US\$6.8 million (30%). The proposed terms are: (a) amortization period, 20 years; (b) disbursement period, 4 years plus six additional months for the resources allocated to the final audit and evaluation; (c) grace period of four years and six months; (d) interest rate, variable; (e) credit fee, 0.75%; (f) inspection and supervision, 1.0%.

F. Request for resources from MIF

- 2.42 The government requested that the Bank grant nonreimbursable resources from the Multilateral Investment Fund (MIF) to finance Component II projects (promotion of clean development and adjustment and implementation of sectoral and general environmental policies and regulations), for approximately US\$2 million. In the event that approval is granted by the MIF's Donors Committee, the total cost of the loan operation could be lower.

Table II-1
Table of costs and financing scheme
(in thousands of US\$)

Investment categories		Bank	Local contribution	Total	%
1.	Administration and supervision	2,300.0	200.0	2,500	11.0
1.1	Operational planning unit	1,700.0	100.0	1,800.0	
1.2	Evaluation and design, Stage II	300.0	0.0	300.0	
1.3	Administration	300.0	100.0	400.0	
2.	Direct Costs	12,950.0	4,400.0	17,350.0	76.9
2.1	Strengthening of ANAM and of the Interagency Environmental System, and of decentralized environmental management	5,800.0	2,200.0	8,000.0	40.0
2.1.1	Institutional strengthening of ANAM	3,300.0	1,000.0	4,300.0	
2.1.2	Strengthening of Interagency System and of RUAS	1,700.0	600.0	2,300.0	
2.1.3	Strengthening of decentralized environmental management	420.0	200.0	620.0	
2.1.4	Environmental education and public awareness-building	380.0	400.0	780.0	
2.2	Development of environmental policies, regulations and instruments	5,900.0	1,700.0	7,600.0	38.0
2.2.1	Reconciling and implementation of general and sectoral environmental policies and regulations	1,060.0	100.0	1,160.0	
2.2.2	Mechanisms for environmental impact assessment of projects	2,300.0	580.0	2,880.0	
2.2.3	Mechanisms for pollution monitoring, supervision and inspection.	490.0	200.0	690.0	
2.2.4	Regulations on environmental quality and emission standards	1,150.0	500.0	1,650.0	
2.2.5	Promotion of clean development	900.0	320.0	1,220.0	
2.3	Environmental management initiatives	1,250.0	500.0	1,750.0	8.8
2.3.1	Technical assistance for preinvestment	150.0	100.0	250.0	
2.3.2	Environmental investments	1,100.0	400.0	1,500.0	
3.	Not specifically allocated	392.0	120.0	512.0	2.2
3.1	Contingencies and cost escalation	392.0	120.0	512.0	
4.	Financing costs	158.0	2,080.0	2,238.0	9.9
4.1	Interest	0.0	1,830.0	1,830.0	
4.2	Credit fee	0.0	250.0	250.0	
4.3	Inspection and supervision fee	158.0	0.0	158.0	
Total		15,800.0	6,800.0	22,600.0	100.0
% of Total		70%	30%	100%	

Table II-2 Breakdown of direct costs by component				
Items	Totals Donors Committee	Components of the program		
		Strengthening of ANAM and of the Interagency System, and of decentralization	Development of environmental management policies, regulations and instruments	Environmental management initiatives
Training workshops	4,100,000	2,300,000	1,800,000	-
Specific studies	2,550,000	460,000	1,840,000	250,000
Consulting services	5,400,000	2,140,000	3,260,000	-
Goods	4,550,000	2,800,000	700,000	1,050,000
Works	750,000	300,000	-	450,000
TOTAL	17,350,000	8,000,000	7,600,000	1,750,000

III. BORROWER AND PROGRAM EXECUTION

A. Institutional framework

1. Borrower and executing agency

- 3.1 The borrower of the proposed financing will be the Republic of Panama, which is also responsible for amortization of the loan and will transfer program resources, on a reimbursable basis, to the executing agency. The executing agency will be ANAM, through its new Directorate of Planning (DP).

2. Executing agency and participants

- 3.2 ANAM will be the program's executing agency, and its coordination will be the responsibility of the DP, which will be created as a result of the reorganization of ANAM and of its new and added functions as the governing institution responsible for strategic planning and setting standards in the area of natural resources and the environment, in accordance with Law 41. The first task of the DP will be the coordination and execution of this program, which will lay the foundation for the future tasks and functions of this directorate in managing and proposing planning and strategies for ANAM. For this purpose, an operational planning unit (OPU) will be created at the DP, in addition to the staff created through the reorganization, to act as the operating and support arm, and will be responsible for monitoring of the various stages and actions of the program.
- 3.3 In addition, ANAM will have a consulting firm that will support and train the OPU in the program's administration and execution tasks (including preparation of TOR specifications, consulting contracts, and supervision and monitoring reports). As a condition precedent to the first disbursement, ANAM will sign an agreement with this consulting firm. For Component III (environmental management initiatives), ANAM will have a specialized institution to administer the environmental investment resources. As a condition precedent to the disbursement of resources for Component III, ANAM will sign the agreement with that institution.
- 3.4 In developing the program's activities, other public sector institutions, such as MINSA, MIDA, the Office of the Comptroller General, ME, the AMP and the Sectoral Environmental Units (UASs), will participate as direct beneficiaries. A coordination mechanism has been designed, through agreements (paragraph 2.10), to ensure appropriate participation of all elements that are part of the Interagency Environmental System.

B. Operational planning unit (OPU)

- 3.5 The OPU will have the following functions: (a) overall coordination, supervision and monitoring of the program; (b) assist the working groups or coordinators of the different offices involved in the execution of the various components; (c) supervise the execution of training activities; (d) supervision of the processes of calling for bids and awarding of contracts for the outfitting of offices and provision of goods or services; (e) preparation of the annual work plan, schedule of commitments, disbursements, accounting and financial Statements of the program; (f) preparation and monitoring of management of the program's budget, ensuring the timely availability of resources; (g) monitoring fulfillment of the conditions established in the loan contract and preparation of the annual monitoring reports; and (h) coordination of the preparation of the program's financial Statements, external audits and other reports required by the Bank.
- 3.6 For the execution of the program, ANAM will compose a team that includes: a program coordinator, an assistant, an international advisor on environmental management issues, two experts with experience in institutional management and human resources, an accountant, an attorney, a financial expert, and support staff (secretary, etc.). The OPU will execute and coordinate the various actions with support from all of ANAM's directorates and with the UASs created or strengthened in institutions participating in the program. The environmental units will be made up of officials from each of their respective institutions (MIDA, MINSA, MOP, ME, etc.), which will be supported by consulting services contracted in their respective areas. The establishment of the OPU and the contracting or appointment of the coordinator, the coordinator's assistant, two experts in institutional management and human resources, and an accountant in accordance with an outline of responsibilities agreed upon with the Bank, constitute a condition for loan eligibility.

C. Program execution mechanisms

1. Coordination of the reengineering of ANAM

- 3.7 The execution of the program includes, in addition to the actions indicated in the three components, the process of reengineering ANAM during the entire execution period of the program. For this reason, the execution mechanism will be an integrated effort of the entire institution, using as the operational and coordinating body the OPU, which will coordinate and integrate the efforts of all participants under the directorate of the DP.
- 3.8 The highest-level authority for monitoring of the plan to reengineer ANAM and for supervision of program execution will be ANAM's general administrator, who will chair the ANAM Monitoring Committee, made up of all of the institution's directors, to be directly responsible for actions taken in relation to projects assigned

to their respective directorates, departments and units. This committee will meet at least once a month, and each director will report on progress achieved in relation to the reorganization and execution of his or her respective activities. The secretary of this committee will be the director of the DP. This committee will act as a forum for coordination, decision making and problem solving affecting the fulfillment of goals outlined, keeping the ANAM general administrator informed on the program's execution.

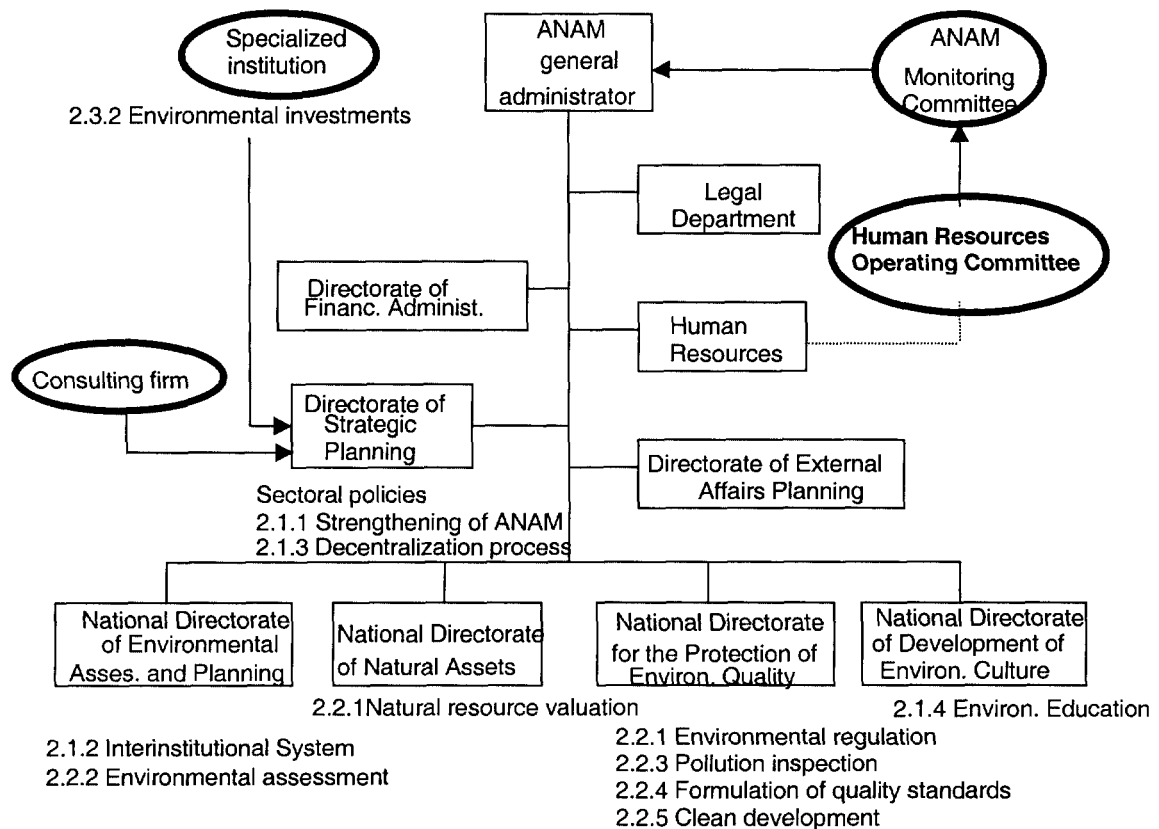
- 3.9 In addition to the Monitoring Committee, an ANAM Human Resources Operating Committee, which will be responsible for the entire process of reassigning and hiring of personnel and planning staff participation in necessary training, as agreed, will be formed. This committee will include the Director of the Office of Human Resources, the Director of the Administrative Financial Directorate, the director of the DP, the coordinator of the OPU and a representative of the legal department. The committee will facilitate coordination with the various directors, the Office of Human Resources, coordinate planning, the schedule and staff that will be replaced or reassigned. The Office of Human Resources will serve as an operating arm of the committee and will be reinforced with advisors, until the process of reorganization has been completed, and will report its progress and results to the ANAM Monitoring Committee.

2. Component I. Execution of the strengthening of ANAM, of the Interagency Environmental System and of decentralized environmental management

- 3.10 This component is the very core of the program, in that it includes all of the actions involving reengineering and strengthening of ANAM, in order to fulfill its future functions. The final objective of the actions of the four projects (paragraph 2.4) is to reorganize and strengthen ANAM and the SIA, create an information system, promote and build awareness on environmental issues and begin the process of decentralizing environmental management, with a pilot project in five local governments.
- 3.11 The reengineering of ANAM (paragraphs 2.5 to 2.8) will be executed on the basis of the above mentioned mechanism (paragraphs 3.7 to 3.9), with the DP acting as the operating arm in coordinating the planning and scheduling of activities. The major emphasis during the beginning phase of program execution will be with the Human Resources Operating Committee and in the process of training and instruction of personnel in the new structure.

- 3.12 The ANAM training plan will be coordinated and executed by the National Directorate of Development of Environmental Culture, through its Department of Environmental Education. The technical supervision of the various studies and systems (administrative, financial, information, etc.) will be under the technical supervision and responsibility of the corresponding departments, according to their particular make-up, and the advances and payments to those providing services will be carried out solely by ANAM, with the approval of the DP (see Chart III-1).
- 3.13 For the strengthening of the SIA and of the UASs, a Network of Sectoral Environmental Units Committee (RUAS) will be formed, chaired by ANAM's National Directorate of Environmental Assessment and Planning, as the entity responsible for the entire operational aspect of the Committee; its members will be all of the institutions that are to be part of the RUAS. For better program coordination, this same Committee will be responsible for monitoring the actions of strengthening of the RUAS related to the environmental impact assessment procedures included in the project (paragraphs 2.22 to 2.24).

CHART III-1
DISTRIBUTION OF RESPONSIBILITIES FOR EXECUTION



- 3.14 The DP will be responsible for the process of strengthening decentralized environmental management (paragraphs 2.12 to 2.14), and will coordinate its activities with the directorates of ANAM and with the regional administrations that are to participate in the strengthening of administrations in the three municipalities, the province and the *comarca* selected as pilot projects.
- 3.15 The National Directorate of Environmental Culture will be responsible for actions related to the environmental education and public awareness-building project (paragraphs 2.15 to 2.17), with the support of ANAM's Directorate of Public Relations for certain actions. These actions cover two areas, one being that of formal education, for which there will be an expansion of the scope of the agreement currently in force with the Ministry of Education, and the other being campaigns to disseminate information to the public. The technical responsibility for the product of all contracting for the systems to be implemented and for training will be under the National Directorate for the Promotion of Culture. The execution of information dissemination campaigns will be under the direct execution of the Office of Public Relations.
- 3.16 The execution of activities of the National Environmental Information System (paragraph 2.11) will be carried out through contracts, but under the direct supervision of the National Directorate of Environmental Assessment and Planning's Department of Environmental Information, in coordination with the DP, thus mobilizing the relevant directorates and units within ANAM, in order to integrate efforts to allow for the involvement of the RUAS, so as to achieve a free flow of communication on progress in executing the different activities.

3. Component II. Execution of the setting of environmental management policies, regulations and instruments

- 3.17 This component is made up of five specific projects whose actions include: contracting of consulting services for the formulation of studies, standards, regulations, the implementing of policies and regulations, plans for controlling air and water quality and noise, environmental impact assessment of projects, registry of sources of pollution in the industrial sector, administrative mechanisms in cases of violation of regulations, workshops, seminars, and training and strengthening of the UASs (paragraph 2.18).
- 3.18 Responsibility for the execution of actions included in these projects resides with the Directorate for the Protection of Environmental Quality and that of Environmental Assessment and Planning, with their respective departments (see Chart III-1), which will be strengthened with special assistance. For actions related to policies, regulations and the implementing of these, the respective directors will form working groups made up of professionals from the directorate involved, as well as by professionals from other directorates and institutions in the sector, which will carry out monitoring and follow-up of the work of the consultants and will give

their final approval for ANAM to proceed to formally issue the given standard or regulation.

- 3.19 The supervision of studies and work plans on specific issues prepared by consultants will be the responsibility of individual professionals, as assigned by the directors; depending, however, on the nature of the study, ad hoc groups could be formed to review and discuss issues that might arise as a result of the study. The contracts for each activity will be reviewed by the corresponding directorates and presented to the OPU for control purposes.
- 3.20 The activities of workshops, seminars and training included in Component II will be coordinated by the National Directorate of Development of Environmental Culture, through its Department of Environmental Education. This department will be responsible for the planning of these activities and will coordinate, with the directors, the participation of the various ANAM professionals, in accordance with the institution's work load and the abilities for absorbing the different tasks and activities of the program.
- 3.21 The Directorate of Environmental Assessment and Planning will be responsible for the project's environmental impact assessment, and will supervise the design of the basic information system, as well as the interagency system of the RUAS (paragraphs 2.9 to 2.11). For this purpose, the Network (RUAS) Committee, made up of the National Director of Environmental Assessment and Planning will have the responsibility of monitoring and supervising the execution of the various actions (studies, application of coordination mechanisms, process of strengthening the RUAS, etc.) related to the strengthening of the RUAS and of the Interagency Environmental System, not only of this project, but also of Component I, thus maintaining coordination and integration in the execution of the program.

4. Component III. Environmental management initiatives

- 3.22 The execution of this component is divided into two projects. The environmental investments project (paragraphs 2.33 to 2.36) will be administered by a specialized institution with experience in the management, monitoring and financing of small environmental projects. For this purpose, a set of Operating Regulations have been developed, which establish the criteria for eligibility, amounts, conditions and standards, as well as the procedures to be followed for requests from communities for accessing financing resources.
- 3.23 Requests for financing will be prepared in accordance with the guidelines agreed upon between the Bank and ANAM and will be submitted by the communities directly or through NGOs or municipalities, to the specialized institution for its approval. The specialized institution will review the requests received, in order to verify that they meet all of the criteria established in the Operating Regulations. Once accepted, the specialized institution will review them through a group of

professional experts appointed for this purpose, which will examine the technical, socio-environmental, institutional and financial viability of each initiative, making its recommendations to ANAM. Final acceptance of the proposals recommended by the technical group will be made by a committee to be agreed upon between ANAM and the Bank, which will include representation by ANAM, the specialized institution, civic groups, the chamber of commerce and local governments.

- 3.24 The specialized institution will sign a contract with the beneficiary and will proceed to disburse to it an advance, equivalent to 30% of the amount of the approved project. The remaining disbursements will be made, based on an accounting, as the projects are executed. The specialized institution will carry out supervision through quarterly, on-site inspections, and will report to ANAM on the progress in the execution of the projects. The specialized institution will maintain an accounting of this project and will provide financial Statements to ANAM for incorporation in the consolidated financial Statements to be delivered to the Bank.
- 3.25 The preinvestment project will be managed by ANAM, through a specialized institution, which will be selected by means of a competition and will be supervised by ANAM. The average amount of each study will be US\$15,000 and the maximum will be US\$25,000, making it possible to support a priority initiative, but with its financing being from resources of existing funds. This project will be governed by a simplified set of Operating Regulations, whose procedure for submission and approval of feasibility studies would be guided by ANAM. The specialized institution will have, among its responsibilities, that of accompanying and directing the applicants and the institutions that manage other funds, and assisting them in their formal applications to access such funds. The administration cost of this project will be established in the negotiations with the future specialized institution and will be part of the costs of Component III.

D. Channeling of funds

- 3.26 ANAM will request that the Bank deposit the loan disbursements in a special account, and the local contribution funds will, in turn, be deposited in a separate account. The coordinator of the OPU, through the DP, would be responsible for requesting disbursements according to the programming of the various activities.

E. Procurement of goods and services and timetable of bids

- 3.27 The procurement of goods and services, construction of works and contracting of consulting services will be carried out in accordance with standard Bank procedures. International competitive bidding will be used for procurement of goods of over US\$350,000 and for contracting of consulting services for amounts over US\$200,000. The largest work will be work space improvements, whose cost will be under US\$300,000.

- 3.28 Procurements and contracting for amounts under these limits will proceed in accordance with a simplified procedure that will be included as Annex D of the loan contract. In conformity with this special procedure, local competitive bidding will be required for goods between US\$50,000 and US\$350,000, works between US\$200,000 and US\$500,000, and consulting services between US\$100,000 and US\$200,000. For amounts less than these amounts, calls for offers or limited local bidding will be used. Direct contracting may be used in cases of procurement of goods for amounts under US\$10,000, works for amounts under US\$20,000 and consulting services for amounts under US\$10,000.
- 3.29 For the selection of consulting services, it is proposed that the minimum cost selection method be used. The recommendation for using this method is justified by the positive experience of different government institutions that have been using the method in the last four years, in operations financed by the Bank, for a range of specialties, with successful results. This methodology incorporates an assessment of technical ability and has made it possible to transfer to the consultants not only the burden of responsibility for formulating sound technical proposals, but has also obliged them to formulate competitive economic schemes.
- 3.30 This method establishes a level of “minimum technical acceptability” to describe the quality of the technical proposals. The proposals are presented in two separate envelopes. The technical proposals are opened first and are evaluated. The proposals that do not meet the minimum accepted level are rejected, and only the envelopes with the economic proposals of the remaining ones are opened. The firm whose proposal has the lowest price is selected. With this method, it is understood that the definition of minimum acceptability will be established taking into account that only proposals that are above this “minimum technical acceptability” level will compete on cost. The minimum level will be explicitly indicated in the invitations to submit proposals.
- 3.31 The plan for procurement of equipment will be carried out through three rounds of international competitive bidding (ICB), for a total value of approximately US\$2,745,000, and two rounds of local competitive bidding (LCB) to procure equipment and execute works for a total value of approximately US\$365,000. It is anticipated that there will be 16 rounds of international competitive bidding for consulting services, for a total value of approximately US\$6,555,000 and three rounds of local call for proposals (LCP) for consulting services, for a total value of approximately US\$510,000 (Main program procurements, Annex I).

F. Period of execution and schedule of disbursements

- 3.32 The proposed disbursement period is four years, as of the entry into force of the loan contract with the Bank, with the exception of the resources allocated for the midterm and final evaluations to which reference is made in paragraphs 3.39 and 3.41, in which case the disbursement period will be four and a half years. Once the

conditions precedent established in the General Conditions □ Article 4.01(a) legal report; (b) appointment of staff; and (c) chart of accounts □ have been fulfilled, in order to begin the program's prioritized activities, a special disbursement of up to US\$400,000 is proposed. The prioritized activities include: (a) fulfillment of the other conditions precedent; (b) drafting of terms of reference and hiring of consultants to support execution; (c) review and dissemination of three high-priority environmental regulations and related training; (d) identification of methodologies and new alternative sources for revenue mobilization by ANAM; and (e) review of the legislation governing use of water and forest resources. For disbursements of resources in addition to the special disbursement, the remaining conditions precedent under the General Conditions – (c) allocation of local contribution for the first year; (d) initial report; and (f) selection of firms of public auditors – and the special conditions precedent will have to be fulfilled. The tentative schedule of disbursements of the loan and of counterpart contributions is presented in Table III-1:

Table III-1 Schedule of disbursements (in thousands of US\$)						
Source of funds	Year 1	Year 2	Year 3	Year 4	Total	%
IDB	1,850	4,077	5,513	4,349	15,800	70
Government	800	1,737	2,389	1,874	6,800	30
Total	2,650	5,814	7,902	6,223	22,600	100
% per year/cumulative	11.7%	25.7%	34.9%	27.7%	100%	

G. Recognition of previous expenditures and retroactive financing

- 3.33 The government has requested that the Bank recognize expenditures made for contracting consulting services, conducting workshops and overhauling facilities, and for procurement of office equipment for a total of US\$100,000. To this end, reimbursement from the Bank's loan is proposed in an amount of up to US\$100,000 equivalent for expenditures incurred within a period of up to 12 months prior to the date of approval of the loan, subject to proof of having met requirements substantially analogous to those established in the loan contract.
- 3.34 In addition, the government and the Bank, in support of the preparation and implementation of the program, signed a letter of agreement, charged to the Line of Credit of the Project Preparation Facility, No. 1090/OC-PN, for a value of US\$430,000, whose repayment will be debited against the first disbursement of the loan, once all of the conditions precedent to the loan have been met.

H. Monitoring of the program

- 3.35 As part of the ongoing monitoring envisaged for the program, Panamanian government representatives and ANAM will meet with the Bank not later than April 30 of each year of the execution of the program, beginning in the year 2001, in order to analyze the progress of the program and reach agreement on the actions to be begun in the following year. The controls to be established will make it possible, on the basis of the agreements between ANAM and the Bank, to monitor the goals envisaged in the work plan agreed upon as a condition precedent. For this purpose, it is recommended that ANAM present to the Bank each year, at least 15 days before each meeting, the reports required to meet the goals established in the logical framework matrix, as given in Annex I, and particularly in regard to the following: (a) progress of the plan to reengineer ANAM; (b) impact of the projects of institutional strengthening at ANAM, at the SIA and in local governments; (c) annual plan and investment and maintenance budget proposed for the following year; (d) progress in reviewing priority policies and regulations, etc. In relation to the goals established in the logical framework matrix, these will be reviewed during the annual monitoring meetings and may be changed by mutual agreement as a result of such a review.
- 3.36 If the Bank does not find the status of program execution satisfactory in the monitoring meetings or on the basis of the corresponding reports, the borrower, through ANAM, will, within 60 days following the day on which the Bank indicates its conclusion, present corrective measures that it will implement, along with the timetable for their execution. If such measures are not satisfactory or are not introduced in a timely manner, the Bank may require the suspension of new commitments with resources from the loan.

I. Reports and midterm assessment

- 3.37 The OPU will be responsible for systematically evaluating the program, as well as for preparing the respective reports that will be analyzed at the monitoring meetings (**paragraphs 3.35 and 3.36**). The reports will be prepared by the executing agency and remitted to the Bank, in accordance with the program's work plan, as agreed. The Bank's Country Office will have the responsibility of supervising the administration of the program, with support from the project team, and will carry out periodic reviews. The OPU will present the reports described below.

1. Initial report (program's work plan) and progress report

- 3.38 **As a condition precedent to the first disbursement, the executing agency will present the program's work plan**, with the timetable of execution for each component and activity of the program. This plan will be consistent with the logical framework matrix prepared for the program, and will include the indicators, means of verification and assumptions for each case. Quarterly progress reports will be

required during the entire execution period, to include a summary of what has been achieved, compared to the work plan, the loan contract and the program's logical framework matrix.

2. Midterm and final assessment

- 3.39 Within six months from the end of the second year of execution, a midterm assessment will be conducted, to be carried out by an independent consulting firm and charged to the loan resources. This assessment will use annual reports, mission reports and assessments presented during the execution of the program; depending on the results of the assessment, this would make it possible to prepare a second stage of the program. During the midterm evaluation, additional indicators will be agreed upon to evaluate some of the accomplishments of the system in terms of improvements in environmental management. In addition, an agreement was reached with ANAM to conduct a final program assessment, which would be conducted by an independent consulting firm, with resources from the loan.

J. Maintenance of works and equipment

- 3.40 ANAM will establish the obligation to perform maintenance within the agreements with SIA institutions, and, in the agreements with the beneficiaries of the environmental initiatives component, the specialized institution will establish the commitment for the works and equipment financed with program resources to be operated and maintained in accordance with generally accepted technical standards, and for the Bank and the governing agencies to be permitted to carry out inspection visits. If it is found that the levels of operation and of maintenance are not acceptable, appropriate measures will be adopted to completely correct the deficiencies. ANAM, for its part, will make a commitment to defray operating costs and the cost of equipment procured for ANAM with program resources.

K. Auditing of the program

- 3.41 The program's financial Statements, audited by an independent accounting firm acceptable to the Bank, will be presented by the borrower within 120 days following the close of its respective budget period, and these will be presented during the execution of the program. The executing agency will present to the Bank, in addition to the project's annual financial Statements, and in accordance with Bank requirements, semiannual reports on: the status of the revolving fund and of the bank accounts used for managing the loan funds and the local counterpart funds. The costs of the external audit will be financed with resources from the loan. The Bank will review and approve, beforehand, the process of selection and contracting of the independent auditing firm, including the terms of reference of the proposed work.

IV. VIABILITY AND RISKS

A. Technical viability

- 4.1 The objectives and goals of this program were defined and agreed upon previously, as a first stage of a broad plan for development in the environmental area, as established in Law 41 and the ENA. The goals outlined are feasible if fulfilled in the period of execution envisaged. The proposed components and projects are supported by diagnostic studies, consultations with the community, and appropriate technical studies, gathering together the experience of other operations financed by the Bank and of other organizations that have implemented similar environmental management projects. Some of the projects of this program reflect activities that provide continuity for efforts or reforms that have already been started with resources allocated during the preparation stage and that, to date, have shown positive results and achievements.
- 4.2 The numerous activities in the different components (training, development of organizational forms, contracting of consultants, procurement, supervision and assessment, environmental management, etc.) pose a challenge in the execution of the program. The participation of a consulting firm in support of ANAM for the administration of the program will make it possible to guarantee the greatest possible flexibility in the processes of contracting of goods and consulting services, in order to carry out the activities envisaged with less expense and in the planned amount of time. By the same token, it will make it possible to create an ability, within ANAM, to take over, in the future, the execution of its own projects.
- 4.3 The participation of a specialized institution to support ANAM in administering and execution of environmental investments would make it possible to take advantage of installed capacity, and of experience in administration of project funds with a high degree of environmental content. In addition, it would make it possible to maintain a direct relationship with the beneficiaries of the funds being managed and with other NGOs, and guarantee a streamlining of efforts that have been made to finance environmental activities in other parts of the country.

B. Institutional and financial viability

1. Institutional viability

- 4.4 The program will be executed within a new ANAM structure, through the DP and with specialized consulting services to support the new functions and activities for training staff. The institutional viability is based on the following fundamentals: (a) the institutional restructuring of ANAM addresses a careful study carried out and approved by the MEF, with broad participation by the staff of the institution and of the government, a goal of which has been to create a modern, efficient

organization with greater technical ability to address the new requirements of the sector; (b) all ANAM personnel will be evaluated and trained according to the new needs and the reengineering plan; (c) the scaling of the program and the scheduling of the various activities were designed in such a way that ANAM is able to absorb the projects and components envisaged; (d) the participation of the supporting consulting firm and of a specialized institution in managing projects with environmental content would make the administrative and technical aspects of the various activities easier and more flexible, leaving to ANAM the responsibility for technical supervision and allowing for more expeditious and fluid execution; and (e) the task of executing the program will be helped by the participation of all of the institution's directorates, under the responsibility of the ANAM administrator, who will use the DP as the operating and coordinating arm. In this manner, the DP will gain valuable experience for guiding ANAM into the future. The execution of this program is designed so as not to leave additional organizational structures and to avoid unnecessary increase in personnel at the completion of its execution.

2. Financial viability

- 4.5 With assistance from consulting firms, different scenarios will be developed for ways of financing ANAM. The preliminary calculations make it clear that, using conservative assumptions, the current ANAM revenue could increase significantly – more than 100% – in the four years. As part of the program, a study of financing alternatives for ANAM will be conducted in the first year, in order to consider its recommendations and implement them at the start of the second year of the program. Technical assistance on issues of environmental valuation will make it possible to develop and justify new viable mechanisms for generating revenue for the institution and for environmental management.
- 4.6 The financial viability of Components I and II of the program is based on two assumptions: first, that ANAM will enhance its ability to generate revenue through a readjustment of charges for environmental services it provides (production of water, forest products, environmental impact assessment, leases, etc.), reducing the budgetary burden for the government; and second, that the reengineering of the institution will allow ANAM to be smaller and have greater capability and more qualified personnel, without the need for a substantial increase in its operating budget.
- 4.7 From an analysis of ANAM revenues, it is anticipated that these could increase from US\$2,029,000 in 1998 to US\$4,274,000 for the year 2003 (an increase of 110%) (see Table IV-1). This increase is due to the adjustment in the sale of environmental services, involving: (a) increases in fees charged by ANAM in connection with inspections in the field and environmental impact assessment studies (current fees are 30% to 50% below current cost); (b) improved administration in invoicing and revenue collection; (c) modest increases in rates charged for land leases; and (d) an anticipated increase in forestry activities. These

goals will be evaluated within the monitoring plan envisaged for the program (paragraphs 3.35 and 3.36).

Table IV-1 ANAM financial projections (in thousands of US\$)						
OUTFLOW	1998	1999	2000	2001	2002	2003
Operating expenditures	6,657	6,772	7,197	7,049	6,968	6,895
Investments local contribution	3,107	2,777	2,952	2,907	2,885	2,865
Subtotal State contribution	9,764	9,549	10,149	9,956	9,853	9,760
External investments	7,681	9,224	7,456	10,391	10,190	6,706
Total budget	17,445	18,773	17,605	20,347	20,043	16,466
Internally-generated revenue	2,029	2,702	3,611	3,856	3,994	4,274
Increase in relation to 1998	-	673	1,582	1,827	1,965	2,245
% increase in relation to 1998		33%	78%	90%	97%	110%
Revenue as % of State contribution	21%	28%	35%	39%	40%	44%

- 4.8 An increase in ANAM's revenue would make it possible to substantially increase the contribution to the overall budget, which could increase from 21% of total expenditures the State would have to provide in 1998 to 44% in 2003. However, in order to attract and hire the professional and technical staff needed by ANAM, given what is conceived to be its future structure, an increase in the institution's salary levels is anticipated, in order to compete not only with the private sector, but with other government institutions with higher salary scales. An increase in salaries at the institution of between 20% and 30%, depending on the categories required and the specialty involved, will involve a net increase of US\$747,000 for the year 2003, or 12%. This could easily be absorbed by the increase in revenue, which would suffer a slight reduction in State support, from 44% to 41%.
- 4.9 In terms of the financial feasibility of Component III, projects with clearly demonstrated financial sustainability will be sought; these will be duly evaluated by the specialized institution before being financed or recommended for financing through the various available funds. Furthermore, it will be confirmed that these projects have a defined counterpart for their execution and have a mechanism to ensure sustainability in their maintenance and operation beyond the period of execution.
- 4.10 The local counterpart required for this operation is an average of US\$1.7 million per year. The increase in ANAM revenue (as given in Table IV-1, in relation to 1998) is such that the institution could have this as a counterpart to the program, beginning with the first year of execution, i.e., the year 2000, provided that the recommendations for generating revenue, which are considered feasible, are

followed. During the negotiations, the feasibility of fulfilling this local contribution obligation during the four years of program execution was reviewed with the government and the inclusion of resources for the program in the ANAM budget for the year 2000 presented to the Legislative Assembly for approval was ensured.

C. Socioeconomic viability

- 4.11 The program, due to its institutional characteristics, is not subject to an analysis of economic viability; however, the design includes activities important for: (a) providing specialized assistance to ANAM for the development of policies, regulations and quality standards, in order to, in each case, incorporate elements of economic efficiency and cost effectiveness; (b) value specific environmental services, in order to justify initiatives for readjustment of rates, revenue generation and the creation of financing mechanisms for the conservation, protection and use of natural resources; and (c) development of appropriate economic instruments to provide incentives for complying with environmental regulations, including the adoption of clean technologies in the private sector.
- 4.12 This program has sought, in designing management instruments, involving the implementation of equipment and information and monitoring systems, to meet criteria for cost effectiveness, optimizing publicly allocated resources and facilitating private investment and initiative for the development of these activities. In terms of pilot projects of the environmental initiatives, there has been an attempt to characterize the demand, using as a basis the profiles of projects given priority by the communities in the course of preparing the ENA. At the same time, an analysis was made of the experiences and results of a sample of small environmental projects financed by other sources, in order to determine the assessment methodologies appropriate for the different types of initiatives and projects. As part of the operating guidelines that will govern the environmental initiatives, it is recommended that very simple socioeconomic criteria for selection be included, in order to foster projects with the greatest environmental and social impact.

D. Environmental viability

- 4.13 The operation will have a positive environmental impact. It is designed specifically to support the country in implementing Law 41 and the ENA, through the strengthening of ANAM and of the Interagency System of environmental management. The investments to be financed, such as environmental management initiatives, would be selected on the basis of their positive environmental contribution and would have, if appropriate, a plan to mitigate secondary negative effects.
- 4.14 Examples of projects to be financed include: studies on land-use planning and watershed management, projects for community improvement, protection of water sources, conservation of biodiversity and protected areas, and protection of green

areas. Measures will also be taken to ensure that these projects do not have a negative social impact, as they will be the result of consultations with, and based on the needs of the communities. For this operation, the project report will be the environment and social impact report (ESIR), which contains a detailed analysis of environmental policies and regulations, of the strengthened institutional structure, as well as of the Operating Regulations containing specific environmental guidelines and criteria for the selection of projects.

E. Targeting of low income groups

- 4.15 The program does not specify explicit performance indicators to measure poverty reduction and improved social equity. The program does not specifically target low income groups, since the benefits are global in nature.

F. Benefits and risks

1. Benefits of the program

- 4.16 With the construction of the legal basis, and the institutional strengthening in the environmental area, the necessary conditions are provided for fostering the sustainable development of the country. As a direct result of the program, the following benefits to the country will be generated: (a) there will be basic and needed management tools that make it possible to address the enormous challenges of economic growth in the context of globalization, especially when the country assumes the management of the Panama Canal and the new areas and infrastructure that are reverting; (b) greater efficiency in public management will be achieved, moving from bureaucratic and obsolete natural resources management to a modern and dynamic institution; (c) there will be environmental information systems that support decision making, both public and private; (d) there will be a more environmentally aware and educated civil population; and (e) it will be demonstrated that at the community level and through small investments, it is possible to have major social and environmental impact that makes management more credible.
- 4.17 The most important benefits, however, are those resulting from the process that is unleashed with the operation and that depend on the society adopting and supporting the management tools and rely on political support and government backing. The major benefits of the proposed operation have to do with resolving the problems described in chapter I, which above all affect the health and the quality of life of the population and compromise natural resources for generations to come. It is important that, as a result of the execution of the program, the management tools succeed in controlling, reversing and mitigating damage associated with pollution – water, air, municipal solid waste, toxic waste, degradation of soils, forests, loss of biodiversity and of coastal marine resources, etc.

- 4.18 From another perspective, another benefit of the program is the more efficient use of public and private investment. Setting of environmental standards allows for all economic activity to incorporate the environmental variable, and the social impact of investments is maximized. The implementation of environmental management mechanisms, such as environmental assessment, public consultation, and environmental information and land-use planning serve to guide investments so that they minimize and compensate for unjustified social and environmental costs that compromise the sustainability of resources or cause harm to the population. At the same time, the environmental management system creates a setting for domestic and external investment opportunities, through the systematizing and simplification of the ground rules, and through the impetus that environmental and natural resources attributes would acquire as a means of generating revenue. These benefits will not be the immediate result of the program's activities, but rather will accompany the process engendered by institutional strengthening activities.

2. Risks of the program

- 4.19 **Restructuring of ANAM.** One immediate risk of the program relates to the potential difficulties the government could face in implementing the restructuring plan outlined for ANAM. To this end, through the program, the following are envisaged: (a) ensure, through a MEF executive decree, the approval of the new ANAM structure; and (b) support ANAM during execution, so that it has the program resources that make it possible to begin implementation of the new structure designed and agreed upon.
- 4.20 **Management ability of the institutions.** The success of the program depends on the effectiveness of the institutions in their functions of supervision and control, in accordance with the regulations of the Law on the Environment. This involves a timely strengthening of the current ability of the institutions and of the UASs with key environmental management functions. To reduce this risk, agreements will be signed with the institutions and a mechanism for coordination and monitoring of ANAM will be established, in order to guarantee the resources to execute the activities designed and to ensure effective interagency coordination with the corresponding support and commitment on the part of the government.
- 4.21 **Fiscal limitations of the country.** The current government has demonstrated to the Bank that this operation is of high priority, despite the fiscal constraints on the country, which could affect allocation of the local contribution. However, the program's design indicates that the operating expenditures remain the same and that the increase in revenue is sufficient to absorb the counterpart needs required by the program.

**NATIONAL ENVIRONMENTAL PROGRAM (PAN)
(PN-0122)
PROCUREMENT PLAN FOR THE PROGRAM**

Main procurements of the program, by component	Financing (%)		Method	Pre-qualification	Estimate of
	IDB	Local			
Services					
Financial assistance for implementation of SINIA, including installation of software, equipment, training (US\$1,000,000) for ANAM and SIA.	80	20	ICP	Yes	2 nd stage
Financial assistance for SINIA, including TOR bidding, specifying equipment (value US\$180,000).	80	20	LCP	Yes	1 st stage
Financial assistance for ANAM, in reengineering support (value US\$480,000).	80	20	ICP	Yes	1 st stage
Financial assistance to support decentralization (value US\$330,000 for 5 local governments).	70	30	ICP	Yes	2 nd stage
Financial assistance for studies and dissemination of environmental audits, PAMAS and decontamination plans	70	30	ICP	Yes	2 nd stage
Financial assistance for studies, regulations and conflict resolution (US\$180,000).	60	40	LCP	Yes	2 nd stage
Financial assistance for development of six environmental policies (US\$360,000).	60	60	ICP	Yes	1 st stage
Financial assistance for strategic nonformal education plan and establish the network and system for common (US\$1,000,000).	70	30	ICP	Yes	2 nd stage
Financial assistance for environmental land-use planning in critical areas (US\$370,000).	70	30	ICP	Yes	1 st stage
Financial assistance for pilot plan (US\$150,000).	70	30	LCP	Yes	2 nd stage
Financial assistance for EIM regulations and manual of procedures (for ANAM, private sector, SIA)	70	30	ICP	Yes	1 st stage
Financial assistance for natural management pilot projects in specific areas (US\$220,000).	70	30	ICP	Yes	2 nd stage
Financial assistance for environmental policies, including strategies (US\$400,000).	70	30	ICP	Yes	1 st stage
Financial assistance for industrial pollution sources (US\$220,000).	70	30	ICP	Yes	2 nd stage
Financial assistance for environmental measurements for environmental standards (US\$450,000).	70	30	ICP	Yes	2 nd stage
Financial assistance for PAMAS, environmental audits and inspection (US\$800,000).	60	40	ICP	Yes	2 nd stage
Financial assistance for national ANAM training, including planning, financial administration (US\$375,000).	60	40	ICP	Yes	1 st stage
Financial assistance for local governments and institutions of SIA (US\$615,000).	60	40	ICP	Yes	2 nd stage
Financial assistance for society – entrepreneurial sector and ANAM on environmental issues (US\$435,000).	60	40	ICP	Yes	2 nd stage
Equipment					
Financial assistance for ANAM – new computer platform (value US\$1,700,000, including technical assistance, maintenance).	90	10	ICB	Yes	2 nd stage
Financial assistance for vehicles, boats, motors, Phase I (value US\$630,000 for ANAM and directorates).	80	20	ICB	No	2 nd stage
Financial assistance for vehicles, boats, Phase II (value US\$415,000 for ANAM and SIA).	80	20	ICB	No	2 nd stage

Main procurements of the program, by component	Financing (%)		Method	Pre-qualification	Estimated cost of procurement
	IDB	Local			
equipment (US\$215,000 for ANAM and directorates), copiers, fax, audiovisual	70	30	LCB	No	2 nd source
of communication system for ANAM and regions (US\$150,000, including equipment	70	30	LCB	No	2 nd source

International call for proposals;

Local call for proposals;

LCB = Local competitive bidding;

ICB = International competitive bidding

RGII-PN164P
PN-0122
Original: Spanish
Appendix I

PROPOSED RESOLUTION

PANAMA. LOAN No. ____/OC-PN TO THE REPUBLICA DE PANAMA
National Environmental Program

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 República de Panamá, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a National Environmental Program. Such financing will be for the amount of up to US\$15,800,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the "Financial Terms and Conditions" and to the "Special Contractual Conditions" of the Executive Summary of the Loan Proposal.