

# INSTITUTIONAL STRENGTHENING PROGRAM FOR ENVIRONMENTAL MANAGEMENT

(AR-0065)

## EXECUTIVE SUMMARY

**BORROWER AND GUARANTOR:** The Government of the Argentine Nation

**EXECUTING AGENCY:** The Secretaría de Recursos Naturales y Ambiente Humano (SRHAH), with support from the subexecuting agencies in the provinces of Buenos Aires, Córdoba, Mendoza and Misiones.

**AMOUNT AND SOURCE:**

IDB:	US\$ 5 million (OC)
	US\$25 million (FSO, in local currency)
Local counterpart funding:	US\$ 8.6 million
Total:	US\$38.6 million

**TERMS AND CONDITIONS:**

Amortization period:	25 years
Disbursement period:	5 years
Interest rate:	Variable (OC)
	4% (FSO)
Inspection and supervision:	1%
Credit fee:	0.75% (OC)

**OBJECTIVES:** The purpose of the Institutional Strengthening Program for Environmental Management is to promote more efficient environmental management in Argentina by strengthening the legal and institutional framework for national, provincial and - indirectly - for municipal environmental systems.

**DESCRIPTION:** The program will pursue a dual strategy coupling government and public pressure tactics with a system of incentives designed to lead individuals responsible for pollution or natural-resource degradation to modify their behavior in their own interest. This strategy draws on the idea that positive, lasting results can only be generated by the convergence of these two forces, rather than by the presence of either of them alone.

Accordingly, in addition to strengthening the institutional framework for environmental management in Argentina (that is, the ability to exert pressure), the program will experiment with different kinds of private-sector and community incentives under three pilot programs. Successful experiences could be

replicated and extended. Funding is also included for the preparation of new project proposals in this area, among others.

The program is divided into three subprograms:

Subprogram A - Support for the establishment of a national environmental management system, in the form of technical assistance in the areas of environmental policy, legislation, institutional strengthening, education, and information.

Subprogram B - Pilot programs for the prevention and control of environmental degradation, through three pilot programs to be implemented in the subexecuting provinces, in the areas of environmental monitoring, institutional structures for watershed management, and industrial pollution control.

Subprogram C - Funding for the preparation of other environmental projects.

**ENVIRONMENTAL  
CLASSIFICATION:**

The Environmental Management Committee, at its meeting of May 7, 1993, classified this as a Category I operation.

**BENEFITS:**

The overall benefit associated with this program is the streamlining of environmental management at the national and federal levels to improve local capabilities to prevent and control environmental degradation incidents. Achievement of these objectives would mean savings in costs associated with the repairing of environmental damage and the loss of basic resources for sustainable production, which would benefit all segments of Argentine society.

Its main specific benefit is the establishment of structures and procedures for assessing the environmental impact of public and private enterprises and of a licensing system using the findings from these assessments as a basis for issuing permits and licenses.

Moreover, the institutional strengthening of environmental agencies would be instrumental in lowering the cost and improving the quality of environmental studies associated with internationally-funded projects, including Bank-financed projects.

**RISKS:**

The institutional weakness of the newly formed Secretaría de Recursos Naturales y Ambiente Humano (SRNAH), combined with the strong provincialist tradition of the Argentine system of government,

could prevent guidelines and standards developed under program activities at the federal level, particularly in the environmental policy and legislation areas, from being duly reflected in provincial legislation and policy. This is an important concern, considering the need for consistent action at both levels of government to address nationwide environmental problems in a coherent fashion. This is why the SRNAH is entrusted with the program's technical and financial management and why the program design ensures active participation by provincial governments in its execution process.

To address the risk of recommendations for environmental policy and legislation not being duly implemented, the program provides for the issue of the necessary administrative decisions where executive action is required and for the introduction of bills in Congress where legislative action is warranted.

**THE BANK'S  
COUNTRY STRATEGY:**

The Bank strategy in Argentina is to lend support in the short-term to solidify economic stability, modernize government and government institutions, streamline and deregulate business and industry and eliminate barriers to investment. As of 1993, the Bank is supporting the implementation of medium- and long-term investment projects to promote gains in efficiency and competitiveness within the productive sector, environmental protection and conservation and agricultural development and to improve the supply of social services in the education, health and sanitation areas.

The Bank is making comparatively large investments in the environmental area in particular. Environmental projects or projects with a large environmental component account for one third of its lending program for 1993-1995 estimated at just over US\$3 billion demonstrating the importance of environmental problems in Argentina and the Bank's emphasis on finding a solution to these problems.

## I. FRAME OF REFERENCE

### A. Environmental conditions in Argentina

#### 1. Urban environmental problems

- 1.1 Industrialization processes with different focuses, dating back to the 1930s, have cemented century-old trends that have resulted in a highly skewed spatial distribution of the population in Argentina, with over 70% of the country's 32.39 million inhabitants living on the humid pampa with one half of the population concentrated in the Buenos Aires metropolitan area, presently counting over 11.5 million inhabitants.
- 1.2 The environmental problems outlined below, while of special concern to the Buenos Aires conurbation, affect all of Argentina's 193 urban population centers and, in particular, its 42 cities with over 50,000 inhabitants which, together, account for 86% of its total population.
- 1.3 The settlement of high-risk areas, the rapid expansion of urban housing stock and inadequate planning create serious space, housing and sanitation problems. Less than 40% of the Argentine population has access to sewerage service, with as many as 3,600 rural communities lacking this type of service. One of the most serious consequences of this situation is a high incidence of infectious and contagious diseases which, in Argentina, account for an average of 8.7% of general morbidity (compared with under 1% in countries where drinking water and sewerage needs have been successfully addressed).
- 1.4 Roughly half the country's industries are concentrated in metropolitan Buenos Aires, inappropriately and haphazardly scattered throughout residential areas. Urban planning problems are magnified by the lack of procedures for the prevention and control of pollution, making the present layout of its industries that much more ill-advised. The harmful effects of food processing plants – and meat packing plants in particular – as well as tanneries and a host of small- and medium-scale industries consuming large quantities of water and producing large volumes of chemical and organic waste are noteworthy, and their location in the midst of densely populated areas endangers human health and affects the quality of life.
- 1.5 Argentina's industrial pollution problems have never been effectively addressed. Having promulgated a National Hazardous Waste Act, it has a difficult task ahead of it in developing regulations and institutional arrangements to optimize enforcement efforts.
- 1.6 Industrial and household wastes are polluting the water of rivers flowing through the country's most densely populated areas,

primarily in the province and city of Buenos Aires. In cities such as Buenos Aires and La Plata, on the banks of the River Plate, such waste is dumped in the river without being subject to any type of treatment whatsoever, or with only the most rudimentary form of treatment, with this same pattern repeated in smaller towns and cities.

- 1.7 Gases, vapors and solid particulate matter suspended in the atmosphere, produced by industry, motor vehicles and power plants, carried by rain and ultimately ending up in streams and rivers, constitute yet another source of urban pollution.

## 2. Environmental conditions in rural areas

- 1.8 Argentina's high urban population density contrasts sharply with the important role that agricultural activity continues to have in the nation's economy. Such a situation is explained by the fact that these activities are concentrated on large holdings, mainly ranches.
- 1.9 Argentina has lost two thirds of its forest wealth over the past 80 years, due partly to the expansion of agricultural activity and partly to the demand for lumber and firewood as an industrial fuel. Deforestation is progressing at a rate of approximately 120,000 hectares a year. There are an estimated 122 endangered plant species, with no reliable estimates on the number of endangered animal species. This data was compiled recently from a survey conducted with World Bank assistance.
- 1.10 Until recently, Argentina was entirely unaware of this gradual loss of its natural wooded areas, with the prevailing notion being that its natural resources were both infinite and impregnable. This growing consciousness of the country's deforestation problem is accompanied by an escalating concern in regard to the sustainability of traditional agricultural uses of soil and water resources, particularly in light of the use of pesticides and fertilizer, inappropriate farming practices and the lack of conservation measures.
- 1.11 Over half the country's surface area is plagued by both chronic and acute erosion from water and wind. Water erosion is of special concern on the humid pampa, which produces 90% of the country's grain crops. Recent innovations in technology have improved per-hectare yields, but at the cost of jeopardizing the long-term sustainability of basic resources.
- 1.12 Argentina also has a serious desertification problem. Roughly 60% of its surface area is arid or semi-arid, and approximately 40% of its irrigated areas are affected by salinization caused by poor drainage and poor management of irrigation systems, prompted by the low cost of water.

- 1.13 Existen alrededor de 300 especies de mamíferos, 980 especies de aves, 250 especies de reptiles, 140 especies de anfibios y 312 especies de peces de agua dulce en Argentina. Muchas de ellas se consideran amenazadas o en peligro de extinción. Aunque existe un sistema federal de áreas protegidas, éste es uno de los menos significativos de América Latina en términos de porcentaje del territorio nacional (0.92%). Las áreas protegidas no cubren una muestra representativa de los ecosistemas ni brindan protección a las zonas de más alta biodiversidad (la mayoría de los parques están en los Andes y sus estribaciones). Este desbalance no se revierte al tomar en consideración las unidades provinciales, dado su muy reducido tamaño.
- 1.14 La investigación orientada a determinar la situación actual, riesgos y medidas de tratamiento para el manejo de esos recursos renovables básicos está apenas en proceso.

**B. Política ambiental del país**

- 1.15 Gran parte del problema de deterioro ambiental en Argentina se debe a la falta de una política y legislación adecuadas, a la ausencia de coordinación en la aplicación de las normas, así como a la insuficiencia de información y conciencia pública sobre su naturaleza y alcance.
- 1.16 Argentina carece de una política de medio ambiente y recursos naturales claramente definida y de aplicación nacional; de hecho, Argentina no tiene, por ejemplo, una ley general de medio ambiente.
- 1.17 Las expresiones más claras del pensamiento ambiental de Argentina se observan en los mandatos institucionales, en particular el de la Secretaría de Recursos Naturales y Ambiente Humano [SRNAH], el cual deja constancia del objetivo central que persigue el país en este campo: "...preservar los recursos naturales y la calidad de vida del medio ambiente humano." 1/.
- 1.18 En el citado decreto se asocia la calidad de vida con el bienestar de la comunidad y del individuo, como condición necesaria para el desarrollo y perfeccionamiento de las facultades personales. Así mismo se expresa que es necesario conjugar el desarrollo económico con el mantenimiento del equilibrio de los recursos naturales, el mejoramiento del ambiente, y la prevención y disminución de los efectos de la contaminación.
- 1.19 Esta expresión de política debe compatibilizarse con el principio constitucional que asigna el dominio sobre los recursos naturales a las provincias. En el sistema federal argentino, si bien el gobierno nacional tiene la atribución fundamental de establecer

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1/ Decreto 2419/91 del 12 de diciembre de 1991, por el cual se crea la Secretaría de Recursos Naturales y Ambiente Humano y se designa su titular.

normas y leyes generales, las provincias y municipios retienen control sobre los recursos naturales de sus territorios y tienen responsabilidad directa sobre el mantenimiento de la calidad ambiental en su jurisdicción. Por tanto, cualquier participación del gobierno nacional en estos temas debe darse vía una "adhesión" expresa y voluntaria de los gobiernos provinciales a las propuestas federales.

- 1.20 La nación solo puede legislar para todo el país en aquello que le ha sido delegado. Las provincias han renunciado a legislar expresamente en materia de: código civil, penal, de comercio, de minería y del trabajo y la seguridad social. La nación puede legislar sobre todos los demás temas en los territorios que caen bajo su jurisdicción: capital federal y territorios nacionales.
- 1.21 La fragmentación del dominio de los recursos naturales, y la vigencia de un marco institucional tradicionalmente inestable han actuado como elementos de conflicto entre las administraciones nacionales y provinciales, y han resultado en un manejo descoordinado y a menudo inapropiado de la base de recursos y la calidad del ambiente en el país.
- 1.22 Por otra parte, la falta de una política ambiental y la crisis económica que experimentó el país por más de 15 años, hasta 1991, contribuyeron a acelerar el proceso de degradación ambiental. Ante un escenario de alta inflación, y caídas en la inversión, el producto interno bruto [PIB] y el nivel general de vida de la población, los aspectos ambientales fueron relegados a un segundo plano.

#### C. Estructuras institucionales en el área ambiental

##### 1. Nivel nacional

- 1.23 El gobierno argentino ha dado un paso importante hacia la revaloración del tema ambiental mediante la creación de la Secretaría de Recursos Naturales y Ambiente Humano [SRNAH] (1991), que reúne a nivel nacional la coordinación de los temas relacionados al medio ambiente. La Secretaría depende directamente de la Presidencia de la Nación. A nivel federal la nueva secretaría es sucesora de la Subsecretaría de Política Ambiental (1985), y reúne además parte de lo que fueran funciones de la Subsecretaría de Recursos Naturales de la Secretaría de Agricultura y Ganadería del Ministerio de Economía.
- 1.24 La SRNAH enfrenta algunos problemas derivados de las circunstancias en las que fue establecida, así como de la situación general del gobierno federal argentino. En primer lugar, la dotación presupuestaria de la SRNAH es comparativamente muy inferior a la del resto de las carteras de Estado en Argentina, especialmente dada la amplitud de sus responsabilidades.

1.25 Secondly, the configuration of its staff is highly skewed in favor of administrative personnel (accounting for over two thirds of its staff), preventing effective performance of its predominantly technical duties. Moreover, only a small percentage of its few professional staff members have formal academic training in environmental fields due, in part, to the fact of its staff being drawn from other agencies transferred to the SRNAH. In any event, this situation is expected to change with the restructuring of the SRNAH under the present program.

1.26 There are a number of budding environmental units at the federal government level in various ministries and departments.

## 2. At the provincial and municipal levels

1.27 A number of provincial and municipal governments have their own environmental agencies, at the cabinet ministry level in certain provinces or at the department or special unit level in the case of municipal governments. In general, environmental agencies at the provincial and municipal government level are at a more advanced stage of development than their federal counterparts.

1.28 While provincial government policies in the environmental area all give high priority to addressing environmental issues in light of their public interest, none of these policies have as yet established explicit linkages with current economic, educational and even social policies at this same level. Moreover, while the provinces have been designated authority to enforce applicable legislation, their agencies face tremendous constraints in terms of staffing, training and technical development impeding them from performing their assigned tasks. Lastly, policy statements have only preliminary versions of their prospective implementing instruments.

1.29 Thus, while provincial governments have sound, comprehensive basic policy packages, they continue to lack the necessary implementing strategies, instruments and mechanisms to round out their policies and facilitate their enforcement.

## 3. The Federal Council on the Environment and the Federal Environmental Agreement

1.30 The Federal Council on the Environment [Consejo Federal de Medio Ambiente] 2/ (COFEMA) is made up of the environmental agencies existing at the provincial government level. The SRNAH is also a member of COFEMA. The Council has stepped up and systematized its operations over the course of the past year. One of its main tasks, which it carried out with assistance from the SRNAH,

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2/ COFEMA is an association of agencies responsible for environmental management at the provincial level.



involved the framing, discussion and recent approval of the Federal Environmental Agreement.

- 1.31 The main objective of this agreement, signed by senior provincial government officials and by the SRNAH in early July 1993, is to "promote environmentally sound development policies at the country-wide level, establishing frame agreements between federated states and between said states and the national government to facilitate and enhance the efficiency of environmental protection, guided by the principles of 'Program 21' ..." 3/
- 1.32 The Federal Environmental Agreement expresses the intent of the federal and provincial governments to work together in pursuit of common environmental goals. While the signed text of the agreement is more a statement of intent than a clear outline of a course of joint action, the signature of this agreement is a crucial step towards the development of consistent federal and provincial programs and policies. With the signature of this instrument, the next step is the design and implementation of specific activities in furtherance of its stated objectives.

#### 4. Supporting agencies and organizations

- 1.33 Civil society in Argentina is endeavoring to promote a greater awareness of the need to take nationwide action to halt environmental degradation, primarily through nonprofit agencies such as foundations and similar types of organizations. This movement has gained increasing momentum in the past few years, and the agencies are recognized as playing an essential role in the framing and implementation of new and better environmental policies in Argentina.

#### D. The Bank's environmental strategy in Argentina

- 1.34 The Bank is planning to make comparatively large investments in Argentina's environmental sector. Environmental projects or projects with a large environmental component account for one third of its lending program for 1993-1995, estimated at US\$3 billion, reflecting the importance placed both by Argentina and by the Bank on solving the country's environmental problems.
- 1.35 Current pipeline operations in Argentina with environmental components and/or importance include a clean-up program for the Reconquista River (1993), an environmental sanitation program for Greater Buenos Aires (1995), water supply and sewerage programs for the Buenos Aires conurbation (1994), a provincial agricultural development program (1994), an environment and resettlement program in Yacyretá (1993), a municipal government development and social

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3/ "Pacto Federal Ambiental" [Federal Environmental Agreement], Buenos Aires, July 5, 1993.

- 1.36 Se espera que el conjunto de estas operaciones y el programa propuesto fortalezcan la capacidad gerencial y técnica de las entidades federales y provinciales con responsabilidad en el área ambiental y de manejo de recursos, a la vez que incrementen el nivel de inversión en este importante campo. Las actividades previstas en el programa, por su naturaleza normativa, son fundamentales para el cumplimiento de este propósito.

E. Apoyo de otros organismos

- 1.37 La SRNAH se encuentra realizando algunas actividades que cuentan con financiamiento internacional, entre ellas:
- a. En el marco del financiamiento del Programa de Reforma de Empresas Públicas (PEREL) financiado por el Banco Mundial se encuentra en desarrollo un programa para elaborar una propuesta conceptual y metodológica para la realización de los autodiagnósticos ambientales provinciales que se llevarán a cabo con el presente programa. El objetivo específico es determinar la información relevante que deberán considerar las Provincias para elaborar sus diagnósticos ambientales y los procedimientos básicos a seguir para alcanzarlos.
  - b. En función del cumplimiento del Protocolo de Montreal, el Banco Mundial, a través del Proyecto PEREL financió la contratación de un experto para elaborar una propuesta de un Proyecto de Reconversión Industrial para la Protección de la Capa de Ozono, con financiamiento del Fondo Multilateral del Protocolo de Montreal.
  - c. Se han financiado diversos eventos con financiamiento internacional. FAO y PNUMA han financiado un Seminario sobre Areas Protegidas y Biodiversidad. UNESCO financia un Seminario sobre Evaluación de Impacto Ambiental en Explotaciones Mineras. El Instituto Julich (Alemania) está financiando un análisis de barros en el Riachuelo (que separa la provincia de la Capital Federal).
- 1.38 El Banco Mundial está preparando un proyecto forestal que sería ejecutado a través del Ministerio de Agricultura, uno de cuyos propósitos es la elaboración de un inventario detallado de la cubierta boscosa del país.

F. Racionalidad del proyecto

- 1.39 Claramente, Argentina evidencia un bajo desarrollo relativo en el área ambiental frente a otros ámbitos de la función pública y de la participación comunitaria. La administración actual, consciente de la relevancia de tomar acción en este campo, ha solicitado al Banco financiamiento para fortalecer las instituciones y los procesos que el gobierno ha iniciado recientemente, y consolidar la relación de los niveles nacional-provincial en materia de políticas y estrategias ambientales.

- 1.40 El análisis de la situación actual del país en este campo permite identificar dos prioridades básicas: (i) el establecimiento de un sistema nacional de gestión ambiental (o sistema nacional ambiental) para hacer coherente el tratamiento que se da a la temática ambiental en todo el país; y (ii) la creación de un sistema de control ambiental que permita alertar sobre la ocurrencia de problemas ambientales, evaluarlos, darles seguimiento y eventualmente controlarlos.
- 1.41 Tanto la SRNAH como las agencias ambientales de los gobiernos locales, tienen interés en recibir asistencia técnica y financiera que les permita emprender tareas de fortalecimiento, control de la calidad ambiental, y sobre todo mejorar los mecanismos de cooperación entre ellas. El apoyo del programa debe darse en el marco de la política de descentralización que sigue el gobierno argentino, y respetando la asignación de funciones básicas existente entre los órganos nacionales y los provinciales en el esquema de ejecución.
- 1.42 La recientemente establecida SRNAH enfrenta la tarea de consolidar su papel en el concierto de instituciones nacionales y locales que han venido operando antes de su instauración, y cumplir las funciones de coordinación y fiscalización que le competen. En este contexto, es importante que el Banco muestre un apoyo decidido a la realización de las actividades de fortalecimiento aquí previstas, en razón de la cambiante situación institucional que enfrenta el país al momento.
- 1.43 Adicionalmente, el programa sentará las bases reglamentarias, institucionales y de procedimientos que faciliten la ejecución de proyectos financiados por el Banco en Argentina, especialmente en el área de evaluación de impactos ambientales.
- 1.44 El apoyo del Banco será fundamental para catalizar los esfuerzos del gobierno federal y de los gobiernos provinciales y municipales, bajo el objetivo común de adoptar políticas y estrategias de contenido ambiental de alcance nacional.
- 1.45 Por cuanto la presente operación se orienta a contribuir a la solución de estos problemas básicos, se prevé que su aplicación tendrá significativos impactos ambientales positivos indirectos, mientras que no se han identificado posibles impactos ambientales negativos directos o indirectos.

## II. THE PROGRAM

### A. Objectives

- 2.1 The Institutional Strengthening Program for Environmental Management is designed to promote more efficient environmental management in Argentina by strengthening the legal and institutional framework for national, provincial and - indirectly - municipal environmental systems.
- 2.2 The program will pursue a dual strategy coupling government and public pressure tactics with a system of incentives designed to lead individuals responsible for pollution or natural-resource degradation to modify their behavior in their own interest. This strategy draws on the idea that positive, lasting results can only be generated by the convergence of these two forces, rather than by the presence of either of them alone.
- 2.3 Accordingly, in addition to strengthening the institutional framework for environmental management in Argentina (that is, the ability to exert pressure), the program will experiment with different kinds of private-sector and community incentives under three pilot programs. Successful experiences could be replicated and extended. Funding is also included for the preparation of new project proposals in this area, among others.
- 2.4 The specific program objectives are to:
  - a. support the framing of a national environmental policy and the reform of existing environmental legislation in Argentina based on arrangements under the Federal Environmental Agreement;
  - b. strengthen SRNAH technical and operating capacity;
  - c. support the strengthening of major national, provincial and, to a lesser extent, municipal environmental protection agencies;
  - d. conduct an environmental education program and promote the establishment of an environmental information system;
  - e. launch three top-priority pilot programs for the prevention and control of environmental degradation in four previously

selected provinces 4/ with the following components: (i) environmental monitoring system; (ii) institutional structures for watershed management; and (iii) industrial pollution control;

f. assist in the preparation of environmental project proposals.

B. Description

2.5 The program seeks to trigger a process of institutional strengthening and support for environmental management, working with extremely low and weak levels of institutional organization. This is why the program is comparatively small in scale, despite its broad-based, comprehensive treatment of environmental problems. Its implementation should expand environmental management in Argentina to a scale consistent with real needs, which are obviously far too great to be fully met by this specific program.

2.6 The program will be carried out based on the implementation of three subprograms: Subprogram A. Support for the establishment of a national environmental management system (objectives a, b, c and d); Subprogram B. Pilot programs for the prevention and control of environmental degradation (objective e); and Subprogram C. Preparation of environmental projects (objective f). The technical files for the program contain a detailed description of the tasks and flow charts and timetables for program execution.

1. Subprogram A. Support for the establishment of a national environmental management system

2.7 This subprogram will help lay the groundwork for the establishment of a National Environmental Management System (SINAM) based on agreements reached within the framework of the Federal Council on the Environment (COFEMA) and with its support. This system would include both COFEMA members and other levels of government (national and municipal), as well as representatives of the non-governmental sector (business and industry, scientific organizations, NGOs) to promote mutual cooperation. To the extent that it establishes the role of the different agencies involved in environmental management and directs their operations, the system would also coordinate environmental management activities. Subprogram A consists of five components as described below:

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4/ These provinces would serve as the subexecuting agencies for Subprogram B. The provinces selected for this purpose were: Mendoza and Misiones, which have the most sophisticated institutional structures and a better understanding of environmental issues; Córdoba, which has made significant progress in the environmental legislation area; and the province of Buenos Aires which, while lacking institutional framework in this area, has close ties to a number of major projects under the Bank lending program.

a. Environmental policy

- 2.8 With the support of this component, the SRNAH will develop one or more policy proposals reflecting the principles, objectives and operating instruments of government and of the country at large in the environmental area, in keeping with general policy statements previously issued by the Argentine Nation, expanding upon and developing them into specific strategies, plans and projects.
- 2.9 These policy proposals will draw on the consensus built by the various institutions operating in this area at different levels of government, with the participation and support of civil society. To this end, the SRNAH will draft a preliminary document for discussion and analysis at program-financed seminars. The main liaison agency in this process will be COFEMA.
- 2.10 The SRNAH will draw on arrangements entered into under the Federal Environmental Agreement in attempting to gain provincial support in this process. To this end, the program will finance a series of COFEMA meetings specifically for this purpose, to promote the framing and formalization of these basic agreements.
- 2.11 Implementation of the Federal Environmental Agreement will require further action, such as the formulation of specific proposals for setting minimum environmental quality and natural resource management targets. In the short term, it will be necessary to establish regulations, procedures, goals and objectives for implementation of the aforesaid cross-jurisdictional agreements. The SRNAH will furnish technical assistance for the performance of these tasks.
- 2.12 The environmental policy proposal and follow-up activities under the Federal Environmental Agreement will establish a conceptual framework and operating guidelines for the environmental management system in general and for environmental impact assessments (EIAs), licensing procedures and penalties.
- 2.13 Throughout this process, the SRNAH will be assisted by a team of local and international specialists, including a panel of distinguished experts in this field, to be recruited through the consulting firm.
- 2.14 The policy proposal emerging from this process will be translated into specific instruments for presentation to the Argentine Congress and to subexecuting agency officials at the provincial level.
- 2.15 The SRNAH will devise a follow-up program to promote the legitimation of these proposed policies, with strategies for promoting public and private sector participation and an action plan for the coordination of corresponding efforts.

b. Environmental legislation

- 2.16 The fragmentary nature and embryonic state of environmental legislation in Argentina, due partly to its federal system of government and partly to the lack of a basic environmental law, cause confusion and hamper efforts to enforce coherent, consistent environmental policies.
- 2.17 The environmental legislation component provides for two parallel, interrelated operations: an analytical review of existing legislation and the framing of bills for complementary legislation. These operations will be launched in tandem rather than consecutively to avoid the common pitfall of spending too much time on data collection and analysis - an ongoing task that can be drawn out indefinitely - at the cost of framing the new proposed legislation, which will presumably have a greater impact. Nevertheless, during implementation a close link will be maintained between the analysis of legal precedents and the development of new legislation to ensure that due account is taken of accumulated experience in this area.
- 2.18 This survey and analysis of legislation and legal precedents in the environmental and natural resource management area will reveal any existing gaps, overlapping and contradictions in this field; the main findings of this analysis will be summarized in an internal report to be distributed to the team involved in preparing proposals for new legislation to serve as a point of reference for their work. The resulting compilation of domestic legislation (including international conventions) will serve as a basis for the preparation of an environmental digest in the form of an organized, coded compendium facilitating access to and consultation of legislation in the environmental area. The digest will be published and widely distributed in a format that can be updated regularly.
- 2.19 Efforts to frame and introduce new environmental legislation will be based on consensual environmental policy proposals and arrangements under the Federal Environmental Agreement. Proposed laws and regulations will be drafted with program support, in conjunction with other national and provincial government agencies and in consultation with nongovernmental organizations, for submission to the competent authorities in each case. Bills for new legislation will include suggestions for the necessary enforcement mechanisms.
- 2.20 The program will track the examination and subsequent analysis of these bills by the executive and legislative branches providing technical assistance to interested agencies. It also provides for the development of a follow-up strategy as guidance for government agencies and private organizations interested in supporting the legal reform process set in motion with program funding.
- 2.21 It should be noted that the program design is based on the premise that the framing of legislation and regulations is crucial but insufficient in itself to ensure a lasting change in the behavior

of the different sectors of public and private activity affecting environmental conditions throughout the country. An effective change of this sort will require the simultaneous usage of incentives to promote voluntary participation by society at large, which is precisely the goal sought by the pilot programs. In the Bank's opinion, only a combination of both these factors can produce lasting positive results in this area.

c. Institutional strengthening

- 2.22 The institutional strengthening component focuses on the SRNAH, on provincial environmental management agencies and, to a lesser extent, on a few selected municipalities.
- 2.23 Participating agencies will be subject to an in-depth organizational study in which they themselves will be actively involved. The program will furnish technical assistance and specialized consultants, training, equipment and other basic inputs.
- 2.24 The organizational study of the SRNAH will serve as basis for the framing of a proposed restructuring plan designed to enhance its performance, effectiveness and efficiency in discharging its responsibilities. This is a high priority task, with the strengthening of the SRNAH considered a basic prerequisite for due and proper program execution.
- 2.25 The proposed restructuring plan for the SRNAH will encompass the following elements: (i) a review of SRNAH structures in light of its institutional mandate and the features of the proposed national environmental system; (ii) staffing and deployment of technical and administrative personnel; (iii) delineation of the responsibilities of its internal units and personnel; (iv) identification of equipment needs; and (v) development of technical, administrative and other procedures. The proposed restructuring plan will be submitted for consideration by the competent officials, with the approved institutional reform program to be implemented by the SRNAH with program support (see Recommendation A.9). To this end, the SRNAH will issue the necessary executive orders for implementation of the restructuring plan. Any agreed-on changes requiring approval by the legislature would be embodied in bills to be drawn up by the SRNAH and introduced in Congress.
- 2.26 Technical assistance services for the provinces will begin with the four subexecuting provinces and follow a process similar to that envisioned for the SRNAH, based on an institutional study designed to facilitate the reorganization and ranking of environmental management agencies at the provincial level. The program will finance necessary technical assistance and consulting services, training, equipment and other basic inputs.



- 2.27 These studies and the corresponding technical assistance services will be gradually extended to the country's other provinces under a program designed with the support of COFEMA.
- 2.28 Consulting services for the municipal governments 5/ will be extremely limited and are intended only to trigger a process to be subsequently pursued with provincial government support and with internally generated funds or other sources of borrowing. Program support will consist of the selection of ten municipalities, with assistance from COFEMA, for the performance of an institutional assessment and the framing of a corresponding proposal and recommendations for short- and long-term action. 6/
- 2.29 The institutional strengthening component concentrates primarily on providing technical training for targeted agency personnel following the same cycle as in other institutional strengthening activities, namely beginning at the SRNAH and subsequently extending, first, to the four subexecuting provinces and, then, to the other provinces and selected municipalities. These activities will be conducted in accordance with a training plan to be drawn up based on a study of duly identified technical training needs for existing personnel. In principle, the program would finance: (i) 30 short-term technical training courses; (ii) 45 local fellowships; and (iii) 5 international fellowships at the master's or doctoral level, except as otherwise recommended in the training plan, as an integral part of the program execution plan.
- 2.30 The local and international fellowships may cover one or more of the following cost items, as dictated by the specific circumstances in each case: (i) tuition and room and board at an institution of higher learning; (ii) books, documents and other materials; (iii) travel and living expenses for studies at locations other than the student's regular place of residence or for field studies; (iv) living expenses for low-income students. International fellowships may also cover the cost of any foreign language courses that may be necessary. The executing agency will require assistance from Argentine institutions specializing in the administration of scholarships, both in the selection process and for the award and monitoring of these fellowships.

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5/ Municipalities will be selected based on: (i) their relationship to pilot program areas (Subprogram B); (ii) their interest in participating in the program; and (iii) their ability to assimilate and implement recommendations stemming from technical assistance services through reforms or improvements in their respective environmental institutional structures.

6/ To be coordinated with the municipal government development and social investment program (AR-0058), currently in the preparation phase.

- 2.31 International fellowships will be awarded through a publicly announced competitive examination open to candidates meeting the following minimum eligibility requirements:
- a. Applicants must have a college degree, with plans to secure a master's degree or doctorate in one of the following fields: (i) environmental science; (ii) natural resource management planning; (iii) pollution control engineering; (iv) environmental economics; environmental law.
  - b. Applicants must furnish evidence of good scholastic achievement in previous college studies.
  - c. Applicants must agree to accept employment at the institution awarding the fellowship upon their return to Argentina for a period equal to the duration of the fellowship or, alternatively, reimburse the sponsoring institution for the full value of the fellowship.
- 2.32 Local fellowships will be awarded through a publicly announced competitive examination open to candidates meeting the following minimum eligibility requirements:
- a. Applicants must be attending college courses in engineering, sociology, biology or other environment-related areas.
  - b. Applicants must have plans to supplement their college studies with basic training in environmental science, natural resource management or pollution control through one of the following mechanisms: (i) short-term courses in specialized institutions; (ii) practical instruction (in-service training, internships) in environmental institutions; (iii) theses, field work or pilot projects on environmental issues.
- 2.33 The program is expected to dispense some form of training, even if only in short-term training courses, to some 650 individuals in procedures for environmental project design, environmental impact assessments or for the monitoring and oversight of natural resource management efforts. It will also encourage experts from participating agencies to take part in other Bank-financed training programs.
- 2.34 The progress of institutional strengthening programs at the SRNAH and in other targeted agencies will be described in detail in the regular program performance reports.
- d. Environmental education
- 2.35 This component is designed to promote education, information and extension activities on environmental issues and problems through the formal education system and through informal media such as television and the press. These activities will be supported by

the establishment of special centers for the production and distribution of educational materials.

- 2.36 The SRNAH will develop a strategic design with the support of this component for discussion and approval by the country's major educational institutions. The design will be based on preliminary proposals framed by the SRNAH in the course of preparatory work for the present operation and will include an updated study of Argentina's operating capacity in this area which, in turn, will serve as a basis for the proposal of cooperative arrangements as part of a national environmental education system.
- 2.37 Through this component, the SRNAH will assist the Ministry of Education, the competent agency in this field, in curriculum building for primary and secondary schools and universities. This activity will draw on a comparative study of similar processes in other area countries. Existing curricula will be reviewed and studied in cooperation with specialized government agencies and nongovernmental organizations, college officials and competent provincial government agencies. The program will furnish technical assistance for the framing and subsequent implementation of proposed reforms, coordinating these activities with other ongoing projects and particularly with curriculum reform projects with more general goals such as the Educational Sector Reform and Investment Program (AR-0122).
- 2.38 Nonformal environmental education activities will be directed both at Argentine society at large and at leading policy-makers at the national, provincial and municipal government levels. The program will finance the preparation, production and transmission of environmental messages through the media. The specific content of these messages and the media to be used for transmission purposes will be established in the course of program implementation with the support of scheduled consulting services.
- 2.39 The program will finance core staffs, equipment and work materials for four regional centers for the production and distribution of environmental education materials, to be established at locations possessing the necessary resources and capabilities for this purpose. The resulting materials will be distributed to educational agencies in each area and may also be disseminated through nonformal education activities. The program will also furnish technical assistance for the start-up of these centers and for the development and coordination of educational activities for radio, television and other media.
- 2.40 The program also provides for the framing of a proposal for the future operation of these regional centers, designating the respective supporting institutions.

e. Environmental information system

- 2.41 The goal of this component is to establish and start up a nationwide environmental information system for the collection, organization and supply of information required by national environmental system agencies. The availability of timely, relevant information will greatly facilitate government decisionmaking and the operation of tracking and monitoring mechanisms to be established with program support.
- 2.42 The preliminary system design will be studied and revised until arriving at a final version to be developed based on an in-depth updated study of nationwide supply and demand for information as of the date of program implementation. This study of supply and demand will be followed up by an assessment of formal and informal structures for the production, processing, collection, dissemination and use of environmental information and will recommend necessary changes in existing structures and functions to tailor them to the needs of a more efficient and effective information system.
- 2.43 The preliminary design presented in this document is based on an assessment of minimum requirements for the establishment of a geographic information system on three levels: an advanced, an intermediate and a basic level, with the four subexecuting provinces constituting the advanced level, half the remaining provinces forming the intermediate level and the remainder constituting the basic level. The system would initially be established at a computer center to be installed at the SRNAH and would gradually be extended to all 23 provinces. The technical files contain a document that explains the underlying concepts serving as a basis for the preliminary system design, with a breakdown of the corresponding cost item. The preliminary technical specifications (for hardware and software and their allocation among different institutions) should be used as guidance for the final design and budgeting process.
- 2.44 The final design should specify system objectives, the structure of the corresponding data bases, participating agencies and the procedures for the collection, analysis, distribution and quality control of technical, statistical and documentary environmental information, with a proposal for system organization, operation, updating and needed financing to meet demand at the least possible cost, including the option of charging for services.

2. Subprogram B: Pilot programs for the prevention and control of environmental degradation

- 2.45 This subprogram will design and finance the implementation of three institutional and financial facilities considered pivotal to the national environmental system. Information gleaned from these pilot programs will be used as input for previously discussed environmental policy, legislation, institutional strengthening and

education components. This subprogram will be conducted under special arrangements with the subexecuting provinces (see special conditions 8(a) and 7(a) of the proposed resolutions in Appendices I and II, respectively), which will establish the corresponding provincial coordination units.

a. Environmental monitoring system

- 2.46 The program will finance the design and implementation of an environmental monitoring system in the four subexecuting provinces with support and assistance from the SRNAH and other federal agencies with authority and responsibilities in this area to start up the institutional structures to be consolidated and strengthened under this project.
- 2.47 The environmental monitoring system (also referred to as the environmental licensing system) consists of three components: (i) a detection or sensing component 7/ to identify and measure changes in environmental quality; (ii) a comparator, evaluating identified conditions against pre-established standards; 8/ and (iii) an enforcement component changing these conditions to conform to desirable standards. 9/
- 2.48 Setting up this system at both the federal and provincial levels will require the development of five subsystems, namely:
- a. A minimum standards subsystem (including water quality, air quality and noise pollution standards, industrial emissions standards, etc.);
  - b. A quality standards subsystem, establishing minimum levels that must be observed and target levels that would be desirable;
  - c. An environmental impact assessment (EIA) subsystem closely associated with the licensing system, with these assessments serving as basic input for the latter system;

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7/ Generally in the form of physical monitoring and social information systems.

8/ This function hinges on the level of sophistication of environmental quality standards (defined both in terms of the desirable characteristics of the host medium - the receiving body of water, for example - and the composition of the effluent in question). These standards, in turn, reflect social goals in regard to the use of the respective resources.

9/ The enforcement function should be both preventive and corrective, with emphasis on prevention through the establishment of a licensing system for investment projects based on findings from environmental impact assessments, equipped with a follow-up mechanism to ensure the implementation of the corresponding recommendations.

- d. An environmental licensing subsystem for activities preclassified according to their implicit environmental hazards, with corresponding permits and licenses issued prior to project preparation (preliminary permits); prior to the commencement of construction work (construction permits) and upon the completion of work (operating permits);
  - e. A zoning subsystem for the spatial distribution of desirable uses of resources and space according to priorities dictated by national environmental policy and related policies.
- 2.49 These subsystems will be supported by economic studies and instruments ensuring the viability of the environmental monitoring system, both on an individual basis and as a whole, as described in the section on economic feasibility.
- 2.50 Since the setting of standards and the development of a licensing system are long, complicated processes, program activities will be strictly confined to establishing minimum standards allowing the system to operate, which will need to be further developed and supplemented as time goes on.
- 2.51 The establishment of an effective environmental monitoring system hinges on the availability of resources (human, technical, institutional, financial) and the existence of appropriate legislation (laws and regulations) and a policy decision. Through this component, the program will furnish participating provinces with needed resources to set this process in motion, assist in the development of necessary legal instruments and operate as a catalyst for the required policy decision.
- 2.52 The program will finance the organization and operation of federal and provincial units in charge of setting up this system for a period of three years, with their activities to be duly coordinated and with corresponding personnel receiving intensive training in the design and performance of environmental impact assessments and in the operation of the licensing system built around these assessments.
- 2.53 The following issues will be discussed with the various agencies in charge of the approval, execution and supervision of investment projects in each province: (i) system objectives; (ii) the allocation of responsibilities among different segments of Argentine society; and (iii) the correlation of incentive, pressure, penalty and surveillance mechanisms whose coherent and consistent use is essential to the successful operation of the environmental monitoring system. One of the main discussion issues concerns the project classification system designed by program experts 10/

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10/ In all likelihood, this would be the same classification system as the one used by the Bank.

to distinguish projects necessitating in-depth environmental studies from those for which no such studies would be required.

- 2.54 These discussions and agreements at the provincial level will be replicated at the federal level in an attempt to standardize procedures and ensure consistent action by all participating institutions. This pilot program will be closely monitored by other beneficiary provinces, and COFEMA will be actively involved in all phases of program execution and will disseminate information both on its progress and on associated problems and experiences.
- 2.55 The program will include performance evaluations, recommendations for remedial measures and the development of a proposal for extending the environmental monitoring system to the country's other provinces.

**b. Institutional structures for watershed management**

- 2.56 Environmental monitoring systems, incentive systems for pollution control and prevention and environmental and natural resource management policies and regulations converge and are implemented at the watershed level, as a physical, conceptual and planning unit. In the long run, it is local government which will be responsible for managing and conducting operations designed to prevent and control environmental degradation, in line with the country's ongoing decentralization policy, which is consistent with the policies of other countries in the region.
- 2.57 In light of these considerations, the program calls for two pilot projects (one in the province of Buenos Aires and the other in the province of Córdoba) to test alternative institutional models designed to enhance the efficiency and consistency of efforts to address environmental problems at the local level, with the watershed serving as the basic unit for such purpose.
- 2.58 There are two basic institutional models for integrated watershed management structures:
  - a. A watershed agency conducting public works and management programs, with full responsibility for resource management within its jurisdiction; and
  - b. A regulatory agency in charge of supervising the performance of line tasks assigned to other agencies and entities and to municipal government agencies in particular.
- 2.59 Rather than impose any particular model for a watershed management structure or organization, the program establishes the following three design standards as minimum requirements to ensure the viability of subsequently developed structures or organizations:

- a. Political/social and economic feasibility of the proposed structure within the country;
  - b. Clear definition and realistic scale of the problem to be addressed;
  - c. Short- and medium-term financing, with prospects for sustained financing.
- 2.60 The basic advantage of a minimum-standards design over a design based on any given preconceived model is its adaptability to the specific circumstances (political, economic, administrative, historical) of each location in which it is slated to be used.
- 2.61 The program will finance the establishment of three technical "cells" or units: one at the national level within the SRNAH and the other two in the provinces of Buenos Aires and Córdoba, along with the corresponding operating, equipment and technical staffing costs. These units will be responsible for the development, negotiation and start-up of integrated watershed management structures, with each province developing its own version of these organizational structures and procedures for use within a specific watershed.
- 2.62 These units will prepare detailed designs for structures to be established in each province under agreements with participating agencies, including the following main elements: (i) improvements in existing institutional structures; (ii) technical innovations to strengthen the capacity of participating institutions; (iii) collection and cost-recovery mechanisms and responsibilities to ensure that the system is self-sustaining; (iv) a decentralized financial management system at the municipal level or a centralized system at the watershed agency level; (v) proposals for additional activities; and (vi) a training plan.
- 2.63 Once these proposals gain the support of the competent government officials, the program will finance the implementation of the detailed designs, covering associated technical assistance, equipment, training and system start-up costs.
- 2.64 System operation will be periodically evaluated with a view to the introduction of any necessary changes. A comprehensive performance evaluation will be made at some point prior to the conclusion of the program. If the results of this evaluation are positive, the provinces will be expected, at this point, to assume responsibility for the maintenance and eventual institutionalization of these units. The last step in the implementation of this component is the development of a proposal for extending the system to other provinces based on prior evaluation results.



c. Pilot industrial pollution control program

- 2.65 This component is designed to support participation by private enterprise and develop a decentralized institutional capacity for industrial pollution control through the provision of technical assistance.
- 2.66 The pilot program will furnish technical assistance both to interested business owners and to provincial government institutions responsible for the prevention and control of industrial pollution - and through these institutions to municipal government authorities - for the setting of standards and the development of administrative procedures designed to prevent and reduce pollution.
- 2.67 The provinces of Buenos Aires and Mendoza were selected as the sites for implementation of these pilot programs in light of the serious industrial pollution problems they face and the interest shown by the provincial government authorities in taking part in the proposed program. If these pilot operations are successful, the resulting systems could be subsequently extended to the country's other provinces.
- 2.68 The feasibility studies have established that it would be more viable and more effective for the pilot program to begin with three types of small and medium-sized industries: (i) slaughterhouses (or meat packing plants); (ii) tanneries; and (iii) metal finishing plants. These industries were selected based on the following distinguishing features that make them particularly suited to program purposes:
- a. They are all small and medium-scale industries, which means that the corresponding technical problems can be resolved with comparatively small investments, which is consistent with the current availability of loanable funds on the financial market and the degree of risk which interested applicants are willing to assume;
  - b. They are all major polluters;
  - c. These manufacturers are all interested in gaining access to commercial loans for the implementation of environmental protection measures.
- 2.69 As far as geographic location is concerned, the pilot program will cover the entire watershed and all industries polluting the watershed will be subject to the environmental monitoring system. A preliminary study in the province of Buenos Aires identified the general area of interest as the Buenos Aires conurbation, with the specific program area still to be established. The proposed location for the pilot program in the province of Mendoza is the Pescar Canal, with this decision to be confirmed upon the commencement of program implementation.

- 2.70 Recipients of program-financed technical assistance services will be owners of small and medium-sized businesses in previously selected branches of industry interested in financing pollution control and prevention measures. 11/ In the past, these business owners have had problems in securing commercial loans due to a host of different factors which can be reduced to two main problems, namely: (i) a weak technical capacity for the assessment and design of environmental protection measures; and (ii) management constraints disqualifying them as acceptable borrowers. The program will address both these constraints, assisting owners of small and medium-scale industries electing to take part in the pilot program in improving the quality and content of their technical proposals and in strengthening their managerial capabilities to enable them to qualify for credit.
- 2.71 To this end, the program will provide interested business owners with the services of a team of technical, organizational, management and financial specialists who will study each individual case, make recommendations and assist in their implementation. This team of specialists will work out of the subexecuting agency at the provincial level and establish a core staff to coordinate activities under this program component.
- 2.72 To ensure the effectiveness, practicality and lasting usefulness of this support for business owners, the program will simultaneously finance a series of complementary activities including: (i) development of a clean-up strategy providing a consistent framework and technical and policy-level support for projects undertaken with program assistance; (ii) development of a system of pressure tactics to force industries to take preventive or clean-up measures required by law; (iii) development of a system of incentives in support of the aforesaid pressure system to encourage voluntary action by industry; and (iv) monitoring and supervision activities. These complementary activities are discussed in greater detail below. As explained in the section on economic evaluation, alternatives should be selected on the basis of economic feasibility considerations that ensure that the clean-up measures will be carried out at the least possible social cost.
- 2.73 The development of a local (provincial or municipal) clean-up strategy for industrial water pollution control acceptable to government and industry in each participating province will provide basic guidance for technical decision-making by core units at the provincial level and, at the same time, afford a broader framework for program-supported projects. The resource management strategy will be developed based on the identification, prioritization and

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11/ These businesses could secure commercial bank loans under Bank lending programs for small business and microenterprises (643/OC and 863/SF), its multisector credit program (AR-0055) and its technological development program (AR-0141.)

ranking of different potential uses of bodies of water polluted by program-targeted industries. The program will support the development of this strategy by facilitating the framing of project proposals and their discussion by provincial and municipal government officials and leading users of the resources in question.

- 2.74 The main purpose for the development of a system of pressure tactics is to support provincial and/or municipal governments in the use of alternative measures such as regular inspections, fines and other penalties demonstrating their intent to uphold the law, effluent-based taxes, and negotiable pollution permits or quotas.
- 2.75 The usage of these pressure tactics requires a clearly defined regulatory framework establishing: (i) minimum water quality standards for bodies of water subject to pollution; (ii) maximum levels of pollution from industrial effluents - particularly those produced by program-targeted industries. These standards will be derived from and consistent with federal standards developed with the support of other program components. Accordingly, the success of this undertaking will be largely dependent on the refinement of the legal instruments for penalizing polluters developed under Subprogram A. 12/
- 2.76 The incentive system will be developed through the identification and discussion of measures and mechanisms to be afforded by provincial and municipal governments to participating business owners to encourage them to take steps to prevent and control industrial pollution generated by their operations. Examples of possible incentives include: (i) direct financing; (ii) guarantees or endorsements facilitating access to credit; (iii) fiscal or tax incentives.
- 2.77 The simultaneous use of pressure tactics and incentives is a basic ingredient in the implementation of this pilot program. Only a combination of both these mechanisms can produce real, lasting changes in the behavior of business and industry.
- 2.78 As part of the implementation process for this component, the program will finance the monitoring and evaluation of compliance with established schedules (for the completion of physical works, changes in technology, substitutions of raw materials, etc.) and of gradual changes in environmental parameters once the corresponding reforms become operative. The aforesaid core units will perform internal audits and the SRNAH will conduct regular external audits in conjunction with participating agencies within and outside the program structure to recommend improvements in system operation.

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12/ The province of Mendoza has a sufficiently well-developed regulatory framework. Regulations in the province of Buenos Aires will need to be refined with program assistance.

- 2.79 A proposal for subsequent extension of the facilities tested under this program to the country's other provinces will be drawn up based on these evaluations and on a comparative study of pilot operations in the provinces of Buenos Aires and Mendoza and presented to COFEMA and the SRNAH.
- 2.80 The lessons drawn from the conduct of this pilot program will be used as input for the implementation of Subprogram A, both for the framing of policy and legislation and for the design of institutional strengthening programs or the implementation of its environmental education and information components.

3. Subprogram C: Preparation of environmental projects

- 2.81 The program also provides for the financing of technical/financial feasibility studies and/or executive design work for environmental projects (beginning with roughly four such projects), to be identified by the SRNAH in cooperation with the country's economic authorities.
- 2.82 Selected studies must meet the following eligibility criteria:
- a. The study topic must be related to: (i) the protection, appropriate management or conservation of the country's natural resources and wealth; and (ii) improvement of the quality of the human environment.
  - b. Program financing will be confined to studies for the preparation and completion of project proposals qualifying for domestic or international financing.
  - c. Top priority will be given to the funding of studies tending to produce projects eligible for Bank financing.
  - d. The types of studies eligible for program financing include: (i) prefeasibility studies; (ii) feasibility studies; (iii) final design and engineering studies.
  - e. The value of individual loans granted by the executing agency against program resources may not exceed the unit sum of US\$500,000.
- 2.83 The program will also finance the procurement of specific consulting services to help review environmental studies for project approval purposes, pending the strengthening of SRNAH capabilities in this area.
- C. Expected benefits
- 2.84 Program execution is expected to produce the following main benefits:

- a. A strengthened conceptual framework and organizational and functional structure for the national environmental system, establishing the responsibilities and authority of all interested parties, including; (i) the Secretaría de Recursos Naturales y Ambiente Humano (SRNAH); (ii) environmental units attached to national government agencies; (iii) environmental agencies at the provincial and, in some cases, municipal government level; (iv) research, technical assistance and service agencies; (v) nongovernmental environmental organizations; (vi) the public at large; (vii) the legislative branch; and (viii) the judiciary;
- b. A proposal for a comprehensive environmental policy supported by COFEMA and draft legislation approving the proposed environmental policy;
- c. Interagency agreements and, more specifically, arrangements under the Federal Environmental Agreement for implementation of the environmental policy and strategy designed under the program;
- d. An operating capacity for controlling environmental quality and, more specifically, for reviewing environmental impact assessments, including a corresponding licensing system, at the federal level and in the subexecuting provinces and for overseeing the enforcement of recommendations;
- e. Publication and distribution of an environmental digest;
- f. A duly approved, restructuring plan being implemented at the SRNAH;
- g. Assessments and work plans for the strengthening of participating provinces and municipalities, with technical assistance for their implementation;
- h. An assessment of training needs, a training plan, seminars and short-term training courses and local and international fellowships for some 650 recipients;
- i. Implementation of a nonformal education strategy, including the preparation and distribution of graphics and video packages;
- j. Establishment of special centers for the distribution of environmental education materials;
- k. Establishment and operation of an environmental information system;
- l. Development of an environmental monitoring system at the national level and in the four participating provinces;

- m. Implementation of politically, technically, organizationally and financially viable watershed management models;
  - n. Participation by targeted industries in the industrial pollution control component, with the program furnishing technical assistance to help interested manufacturers qualify for commercial loans to finance modifications to industrial processes and facilities to prevent or control pollution from this source;
  - o. Establishment of provincial core units for the implementation and coordination of pilot programs (Subprogram B), which could continue to operate subsequent to the conclusion of the program;
  - p. A minimum of four project proposals suitable for international financing.
- 2.85 The establishment of structures and procedures for environmental impact assessments for public and private enterprises and of a licensing system using the findings from these assessments as a basis for the issue of permits and licenses is viewed as an especially important program benefit, both for Argentina and for the Bank. Another equally important benefit is the testing and possible replication of organizational and financial models used in the pilot programs.

D. Program beneficiaries

- 2.86 The program's institutional strengthening activities will directly benefit environmental units at the national and provincial government levels and the ten participating municipalities, in addition to provisioning these units with office supplies and equipment.
- 2.87 As far as the pilot programs are concerned, their industrial pollution control component will benefit small and medium-scale industries, while the institutional structures component for watershed management will assist different groups of participating producers.
- 2.88 Moreover, the program will be of some direct or indirect benefit to the entire Argentine population, to the extent that program activities help improve environmental quality and, thus, the quality of human life. Its most noteworthy long-term advantages are the expected benefits from its environmental education component, which will assist in the development of environmental curricula for use in the formal education system (at the primary and secondary school and university levels) through which the program will have an impact on the country's entire student population. Likewise, environmental education activities promoted by the media and by radio and television in particular would have an impact on all segments of society.

E. Program scale

- 2.89 The program is scaled in accordance with the following basic considerations:
- a. The need to include all components that would ensure effective improvements in environmental management at the countrywide level (policy, legislation, institutional strengthening, education, availability of information), which explains the complexity of the program.
  - b. The fact that this effort represents the first phase of a long-term process, making it necessary to lay some of the groundwork for follow-up activities, which explains the need to include pilot programs.
  - c. The characteristics and current condition of Argentina's institutional framework and its commitment to decentralize government, all of which requires direct involvement by provincial governments in support of federal policy.
  - d. The country's limited institutional capacity to conduct needed activities for the attainment of program objectives, which explains the inclusion of a large outside technical assistance component and a large group of individual consultants in support of participating agencies.

F. Preparatory work for program implementation

- 2.90 A number of key activities were undertaken with Project Preparation Facility (PPF) resources in preparation for program implementation, including: (i) recruitment of program coordination unit personnel; (ii) support of COFEMA operations in general and of activities under the Federal Environmental Agreement in particular; (iii) three seminars on environmental legislation; (iv) a seminar on the Federal Environmental Agreement; (v) supporting services for a seminar on environmental education; and (vi) provision of administrative and financial management consulting services to the SRNAH Technical/Administrative Section.

G. Program cost and financing

- 2.91 The total program cost, estimated at US\$38.6 million, will be financed by two Bank loans for a total of US\$30 million equivalent and US\$8.6 million in local counterpart funding (see special conditions 8(b) and 7(b) in the proposed resolutions in Appendices I and II, respectively). Of the US\$30 million to be furnished under Bank loans, US\$5 million will be drawn from the ordinary capital resources and US\$25 million from FSO resources in local currency. The foreign exchange loan represents only 12.95% of the total program cost, with the other 87.76% to be covered by Bank-supplied

tres seminarios sobre legislación ambiental; (iv) ejecución de un seminario sobre el Pacto Federal Ambiental; (v) apoyo a la ejecución de un seminario sobre educación ambiental; y (vi) asesoría administrativo financiera a la Dirección Técnica-Administrativa de la SRNAH.

G. Costo y financiamiento del programa

- 2.91 El programa tiene un costo total estimado de US\$38.6 millones y será financiado con dos préstamos por el equivalente a US\$30 millones del Banco, y una contrapartida de US\$8.6 millones (Ver Resolución 8(b) y 7(b) de los Apéndices I y II respectivamente). Los US\$30 millones del préstamo provendrán, US\$5 millones de los recursos del capital ordinario, y US\$25 millones de los recursos del FOE en moneda local. El préstamo en divisas asciende a solo el 12.95% del costo total del programa, y el financiamiento combinado del Banco al 87.76% de ese total. Ello es compatible con la política del Banco. Tal distribución ha sido explícitamente solicitada por el Prestatario.
- 2.92 Los recursos del Banco financiarán fundamentalmente los costos de consultoría, capacitación, equipamiento, preparación de proyectos, y los costos de inspección y vigilancia. La contrapartida consistirá en personal técnico de contraparte, personal de apoyo, facilidades logísticas, comunicaciones, materiales y suministros, viajes y viáticos, y gastos financieros del programa.
- 2.93 El presupuesto detallado del programa se encuentra en los archivos técnicos. A continuación se muestra el presupuesto resumido:



COSTO Y FINANCIAMIENTO						
(EN MILES DE US\$)						
<u>CATEGORIA DE INVERSION</u>		<u>BANCO</u>		<u>CONTRA-</u>	<u>TOTAL</u>	<u>%</u>
		<u>OC</u>	<u>SF</u>	<u>PARTIDA</u>		
I	ADMINISTRACION	0	740	2.440	3.180	8,24%
II	APOYO DE GESTION AMBIENTAL	4.200	10.375	1.169	15.744	40,79%
	Consultoría y Capacitación	2.636	7.695	926	11.257	
	Movilización del personal y consultores y becas	0	1.840	243	2.083	
	Maquinaria y equipo	1.564	840	0	2.404	
III	PROGRAMAS DEMONSTRATIVOS	0	9.100	626	9.726	25,20%
	Control Ambiental	0	2.930	255	3.185	
	Manejo de Cuencas	0	2.158	200	2.358	
	Control de Contaminación Industrial	0	4.012	171	4.183	
IV	PREPARACION DE PROYECTOS	0	2.000	0	2.000	5,18%
	Preparación de proyectos ambientales	0	2.000	0	2.000	
V	GASTOS CONCURRENTES	250	0	0	250	0,65%
	Recuperación PPF - Préstamo 747/OC-AR	250	0	0	250	
VI	GASTOS FINANCIEROS	50	250	3.576	3.876	10,04%
	Intereses	0	0	3.477	3.477	
	Comisión Crédito	0	0	99	99	
	Inspección y Vigilancia	50	250	0	300	
VII	SIN ASIGNACION ESPECIFICA	500	2.535	789	3.824	9,91%
	TOTAL	5.000	25.000	8.600	38.600	100,00%
	PORCENTAJE	12.95%	64.77%	22.28%	100,00%	

### III. PROGRAM EXECUTION

#### A. Breakdown of the program execution structure

##### 1. Borrower

- 3.1 The borrower for purposes of this project is the Government of the Argentine Nation.

##### 2. Executing and subexecuting agencies

- 3.2 The executing agency for the Institutional Strengthening Program for Environmental Management is the SRNAH (see special conditions 8(a) and 7(a) in the proposed resolutions in Appendices I and II, respectively), supported by the following four subexecuting agencies representing the four participating provinces: (i) in Buenos Aires: the program coordination unit for the Institutional Strengthening Program for Environmental Management, to be established specifically for this purpose; (ii) in Córdoba: the Ministerio de Salud y Desarrollo Social [Ministry of Health and Social Advancement]; (iii) in Mendoza: the Ministerio de Medio Ambiente, Urbanismo y Vivienda [Ministry of Environment, Urban Development and Housing]; and (iv) in Misiones: the Ministerio de Ecología y Recursos Naturales [Ministry of Environment and Natural Resources].

##### 3. Description and analysis of the executing agency

###### a. Legal framework and objectives

- 3.3 The Secretaría de Recursos Naturales y Ambiente Humano (SRNAH) [Department of Natural Resources and Human Environment] is a national government agency attached to the Office of the President created under Decrees 2419/91, 534/92 and 1455/92. According to Decree 534/92, the main purpose of the SRNAH is to "assist the President of Argentina in nationwide undertakings for environmental development, protection, reconditioning and management and the conservation of renewable natural resources ..."
- 3.4 The authority and responsibilities of the SRNAH focus on the development, protection, reclamation and management of natural resources, including rivers, soils, natural forests and air (the ozone layer) and on the control of environmental pollution through the control of hazardous wastes, water quality, air pollution, etc.
- 3.5 However, its powers and responsibilities are limited by Argentina's federal system of government, under which provincial and municipal governments are reserved a great deal of authority and responsibility within their respective geographic areas. Thus, the SRNAH has no supervisory authority and must oversee the handling of

environmental matters via and in conjunction with provincial and municipal governments. In fact, while the SRNAH may establish federal rules, regulations and standards in different environmental areas, corresponding enforcement powers are reserved for provincial and municipal governments, except in matters whose interest or impact clearly transcends provincial boundaries.

b. Institutional structure and data

- 3.6 The SRNAH is a product of the transfer of different units and activities from other government agencies. In principle, it has continued to carry out the activities of these transferred units, thus far without proper realignment or integration. The SRNAH currently consists of three "subsecretarías" [divisions headed by an assistant secretary] (Natural Resources, Human Environment and Institutional Relations); three "direcciones" [sections] (Environmental Auditing; Reports, Legislation and Records; and a Technical/Administrative section); and two decentralized or independent units (the Instituto de Ciencia y Técnica Hídrica or INCYTH [a water management science and technology institute] and the Administración de Parques Nacionales or APN, its national park service).
- 3.7 The SRNAH staff is established in the annexes to various government decrees and resolutions, including Decrees 534/92 and 1455/92 and Joint Resolution 044/92. The APN staff was established under Joint Resolution 046/92 and Decree 1455/87, while the staff of the INCYTH was established by Joint Resolution 025/92. The breakdown of the current SRNAH staff in numerical terms and by personnel category is as follows:

CATEGORY	SRNAH	APN	INCYTH	TOTAL
Senior staff	4	6		10
Senior staff advisors	20			20
Administrative personnel	189			189
Technical/professional staff	64			64
SINAPA - Technical			177	177
SINAPA - General	50	357	145	552
Park rangers		208		208
Total	327	571	322	1,220

Source: SRNAH, 1993

- 3.8 The entire SRNAH staff will be directly involved in program execution, with the exception of decentralized unit personnel. Of 327

SRNAH employees, 318 are regular staff members, versus 9 contract employees. Its 318 regular staff members include 294 full-time employees, of which 210 are classified as administrative personnel and 84 as professionals. Roughly 36% of all SRNAH employees are college graduates.

- 3.9 Despite the technical orientation of the SRNAH, its current staffing patterns are highly skewed in favor of administrative personnel. Moreover, its professional staff is concentrated in the main areas of expertise of its predecessor agencies, such as forestry and natural resource management. As a result, the SRNAH has a shortage of personnel with professional degrees in key areas related to the human environment, which explains the need for the training proposed under the present program.

c. Budget and budget execution

- 3.10 As a new government agency, the SRNAH's 1993 budget (approved under the General Budget Act) was its first real budget. Its 1992 budget consisted of 6,549,426 Argentine pesos in transfers from its predecessor agencies, of which it spent 92% or 6,044,267 pesos (equivalent to the same sum in U.S. dollars).
- 3.11 Its budget for 1993, the first year for which it has its own budget, consists of 18,623,000 Argentine pesos, representing a 284% increase over the previous year, including the sum of its various budget transfers and its own new budget appropriation. The following table compares the SRNAH budgets for 1992 and 1993.

(in Argentine pesos or U.S. dollars)		
ITEM	1992	1993
Personnel compensation	2,749,426	4,773,000
Consumables	-	320,000
Nonpersonal services	2,830,000	10,580,000
Fixed assets	970,000	2,950,000
Total	6,551,418	18,624,993

Source: SRNAH, 1993

- 3.12 The SRNAH has never managed or executed a project of any magnitude with international financing. Thus, it has never received foreign loans and has never earmarked counterpart funds. The SRNAH has no source of internal cash generation.

- 3.13 Until 1992, SRNAH accounting practices were governed by the Accounting Act and General Accounting Regulations, under which its spending, like that of all government agencies, was subject to pre- and postaudit by the Government Auditing Office. A new Financial Management Act entering into effect as of January 1993 has revamped the government finance system, establishing a new chart of accounts and an accrual basis accounting system. It also eliminates pre-audits by the Government Auditing Office, concentrates all government auditing activities in the General Auditing Office (assimilating the former Government Auditing Office) and establishes a series of internal control procedures. The SRNAH Technical/Administrative Section is in charge of the agency's accounting system and, in this capacity, will be responsible for keeping accounting records for program execution purposes. It is currently in the midst of changing over to these new systems and is going to need assistance in establishing a program accounting system.

#### 4. Subexecuting agencies

- 3.14 Project execution by the SRNAH will be supported by four provinces participating in Subprogram B (pilot programs for the prevention and control of environmental degradation) with the following three components: (i) environmental monitoring system; (ii) institutional structures for watershed management; and (iii) industrial pollution control.
- 3.15 The subexecuting agencies will enter into agreements with the SRNAH (initially adherence agreements and later implementing agreements - see the section on financial management below) establishing the terms and conditions for their participation in the program. The four participating provinces are:
- a. Buenos Aires, scheduled to participate in the environmental monitoring systems, watershed management structures and industrial pollution control components;
  - b. Córdoba, scheduled to participate in the environmental monitoring systems and watershed management structures components;
  - c. Mendoza, scheduled to participate in the environmental monitoring systems and industrial pollution control components; and
  - d. Misiones, which will participate only in the environmental monitoring systems component.

#### 5. Other beneficiary provinces

- 3.16 The country's other 19 provinces will also be included as program beneficiaries and, as such, will be supplied with technical assistance, institutional strengthening assistance and basic office equipment. The program will also finance the services of a

computer specialist for each beneficiary province to operate its assigned equipment for a period of 24 months.

6. Technical assistance/management consulting services

- 3.17 The recent formation of the SRNAH and the absence of national institutions with ample experience in conducting institutional strengthening activities of the type and magnitude required by the present program make it necessary to resort to a prominent, experienced international consulting firm to work with participating institutions throughout the entire operation.
- 3.18 The consulting firm will have the main responsibility for furnishing technical assistance for the implementation of Subprogram A components and, in particular, for designing a restructuring plan for the SRNAH. It will work directly with senior program officials, assisting coordination unit personnel and helping to integrate program activities as part of the regular tasks of SRNAH line units. It will be responsible for furnishing all technical assistance required by the core units, to be channeled through the program coordination unit.
- 3.19 While focusing its efforts on Subprogram A, the consulting firm will also work closely with provincial teams responsible for the implementation of Subprogram B.
- 3.20 The selected firm must have a distinguished international reputation, extensive experience in the environmental field - specifically in institutional strengthening programs for environmental agencies - a knowledge of Argentina and local work experience. Its roster must include professional consultants who have worked for the firm for at least five years as regular staff members, who must be fluent in spoken and written Spanish and have first-hand experience in conducting environmental management projects for federal systems of government similar to that of Argentina.
- 3.21 The consulting firm will furnish a total of 295 international consultant/months, broken down as follows: (i) five long-term consultants specializing in institutional strengthening and environmental policy, legislation, economics and education; (ii) three computer experts, including one expert capable of designing an environmental information system, one expert in computer hardware and one expert in software applications; (iii) three trainers with education and teaching experience in human environmental protection, natural resource management and conservation; and (iv) four specialists serving on the panel of experts in a supporting and referral capacity, primarily for implementation of the environmental policy and legislation components. The firm will also provide a package of *ad hoc* consulting services for the equivalent of 40 consultant/months, budgeted as part of the program's international financing, at the request of the SRNAH and subject to its approval.

- 3.22 The terms of reference for the consulting firm are presented in Annex III-1, with the corresponding procurement notice for consulting services presented in Annex III-2.

B. Technical program execution

1. Technical execution at the federal level (SRNAH)

a. Coordination unit

- 3.23 Given that one of the main objectives of this operation is to strengthen the executing agency and other participating bodies, the establishment of a program coordination unit is more appropriate in this case than an executing agency, which is better suited to projects in which the finished product (such as a physical facility) is more important than the process through which it is created, as in the case of the present operation designed to create a specific capacity within the structure targeted for strengthening. The technical files contain an outline of the organizational structure designed for program execution purposes (see special conditions 8(c)(ii) and 7(c)(ii) in the proposed resolutions in Appendices I and II, respectively).
- 3.24 The program coordination unit will be the main link between the program and the Bank, and it will have the following core staff: (i) a program coordination unit director; (ii) a supporting coordination expert; (iii) an environmental policy component coordinator; (iv) an environmental legislation component coordinator; (v) an institutional strengthening component coordinator; (vi) a pilot program coordinator; (vii) a computer expert; (viii) supporting and counterpart experts; and (ix) a technical secretary.
- 3.25 The program coordination unit will develop a program execution plan (see special conditions 8(c)(i) and 7(c)(i) in the proposed resolutions in Appendices I and II, respectively, and Appendix IV, Section VI, paragraph 6.2); introduce changes ordered by the steering committee and update it on a yearly basis (see Appendix III, Recommendation A.8); propose regulations for program operations; supervise implementation of the various program components, including the national environmental system strengthening component for which the consulting firm will have the primary responsibility; and coordinate the work of counterpart units in charge of pilot program implementation within the subexecuting provinces. It will also be responsible for preparing and presenting program execution plans and the corresponding technical and financial reports. The coordination unit will be supported by the SRNAH Technical/Administrative Section in the administrative and financial management and accounting areas.
- 3.26 The coordination unit will perform the necessary monitoring and supervision work throughout the program execution process and keep the steering committee abreast of the progress of program

activities, affording an opportunity to make appropriate adjustments where necessary.

b. Core Units

3.27 A series of seven core units will be established in each of the main subdivisions of the SRNAH, with one such unit reporting directly to the coordination unit for implementation of the institutional strengthening component. Each core unit will be placed in charge of a specific program component, as outlined below:

a. Institutional Relations Division Core Unit: environmental policy (within the Dirección Nacional de Relaciones Institucionales or DNRI) [National Institutional Relations Bureau]; environmental information system (within the DNRI); coordination of provincial institutional strengthening activities (within the DRNI).

b. Human Environment Division Core Unit: environmental education (within the Dirección Nacional de Calidad y Fomento Ambiental or DNCFA) [National Environmental Quality and Development Bureau]; environmental monitoring system (within the DNCFA); industrial pollution control (within the Dirección General de Control de Contaminación Hídrica) [Water Pollution Control Administration]. 13/

c. Natural Resources Division Core Unit: institutional structures for watershed management (within the Dirección Nacional de Administración de Recursos Naturales) [National Bureau for Natural Resource Management].

d. Reports, Legislation and Records Section Core Unit: environmental legislation.

3.28 The program coordination unit will interface with all SRNAH internal subdivisions through these core units.

3.29 The core units in charge of the implementation of Subprogram A components will have the following basic staff:

a. For implementation of the environmental policy component: a coordinator plus three counterpart experts from the DNRI (one of whom will be furnished as part of the SRNAH local contribution).

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13/ This office is currently located within the Institutional Relations Division but is scheduled to be transferred to the Human Environment Division. In the interim, this component will be managed out of the Institutional Relations Division.



- b. For implementation of the environmental legislation component: a coordinator plus two counterpart experts from the Reports, Legislation and Records Section (one of whom will be furnished as part of the SRNAH local contribution).
  - c. For implementation of the institutional strengthening component: a coordinator plus: (i) four institutional strengthening experts; (ii) four environmental specialists; (iii) four financial experts; (iv) one economist; 14/ (v) two computer specialists; and (vi) two supporting experts from the DNRI (one of whom will be furnished as part of the SRNAH local contribution).
  - d. For implementation of the environmental education component: (i) one environmental education specialist; and (ii) eight education experts to be assigned to the environmental education centers).
  - e. For implementation of the environmental information component: (i) six computer experts for the DNRI (two of whom will be financed under the SRNAH local contribution).
- 3.30 Personnel attached to the staffs of each of these units will be assigned to the program full-time.
- 3.31 Pilot programs will be subject to oversight by a general manager reporting directly to the director of the program coordination unit and serving as liaison officer between the supervisors in charge of each pilot program and the director of the coordination unit.
- 3.32 The core units responsible for the federal coordination of pilot programs (two of which are attached to the Human Environment Division and one to the Natural Resources Division) will have the following technical staffs:
- a. For coordination of the environmental monitoring system component: (i) one supervisor; (ii) one environmental economist; (iii) one expert in environmental quality standards; and (iv) counterpart experts from the National Environmental Quality and Development Bureau.
  - b. For coordination of the watershed management structures component: (i) one supervisor; (ii) one institutional strengthening expert; (iii) one watershed management expert; (iv) one agricultural/forestry engineer; (v) one environmental engineer;

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14/ These experts will be organized into four teams, one per subexecuting province. These teams, based at the SRNAH, will spend the first year of program execution strengthening the subexecuting agencies, after which they will extend their services to the country's other provinces.

(vi) one environmental economist; and (vii) counterpart experts from the National Bureau for Natural Resource Management.

- c. For coordination of the industrial pollution control program: (i) one supervisor; (ii) one environmental specialist; (iii) one economist/industrial pollution specialist; (iv) one industrial engineer; (v) one financial specialist; and (vi) counterpart experts from the Water Pollution Control Administration.

c. Consulting firm

- 3.33 The consulting firm will have the main responsibility for designing a restructuring plan for the SRNAH. It will also furnish technical assistance for the conduct of all activities contemplated under Subprogram A and will work with Subprogram B personnel to ensure the technical consistency of all program operations.
- 3.34 The institutional reform program - based on the plan developed by the consulting firm and subsequently modified in conjunction with the Bank - will be implemented by the SRNAH through the introduction of the corresponding bills or the issue of applicable executive orders (see Appendix III, Recommendation A.9).

d. Senior program management

- 3.35 Program execution will be supported directly by official SRNAH structures. The SRNAH will appoint a national program manager (a full-time SRNAH official - see Appendix III, Recommendation A.4(b)), who will be supported by the steering committee (see Appendix III, Recommendation A.4(b.))
- 3.36 The steering committee will be composed of senior SRNAH officials, chaired by the state secretary in charge of the SRNAH or his representative and including the undersecretaries and program coordination officer. Meetings of the steering committee will also be attended by the director of the coordination unit. The program steering committee will be responsible for framing program strategies and action plans, for general supervision of the program execution process and for the coordination of program activities with the program manager, the director of the coordination unit and the various divisions of the SRNAH. It will also be responsible for approving the program execution plan.

2. Technical execution at the provincial level

a. Institutional strengthening

- 3.37 All provinces will appoint a coordinator or delegate to serve as the program's main contact in the province in question. Moreover, all provinces targeted by program institutional strengthening activities will provide computer operators for program-furnished

equipment. All four subexecuting provinces will have a program-financed computer expert. Annex III-3 contains a summary list of individual consultants; their terms of reference are contained in the technical files.

b. Pilot programs

3.38 Each subexecuting province will enter into the following two types of agreements with the SRNAH for purposes of the implementation of Subprogram B:

a. An adherence agreement for participation in institutional strengthening activities (under Subprogram A). These agreements may be entered into by any other provinces wishing to do so, with the agreements signed by the four subexecuting provinces expressly stipulating that program institutional strengthening activities are to give top priority to these particular provinces (see special conditions 8(a) and 7(a) and 8(c)(iii) and 7(c)(iii) in the proposed resolutions in Appendices I and II, respectively); and

b. A specific implementing agreement for provinces participating in Subprogram B. The signature of these agreements by the SRNAH is subject to the presentation of evidence to the effect that the subexecuting province possesses the technical and managerial capabilities to take on the necessary responsibilities for direct implementation of the respective program components. Under these agreements, the SRNAH would transfer resources to eligible provinces for carrying out the corresponding Subprogram B activities, with the provinces, in turn, pledging a local contribution (see Appendix III, Recommendation A.6).

3.39 Each subexecuting province will establish coordination units (see Appendix IV, Section VI, paragraphs 6.1(a)(i) and (ii)) similar to the SRNAH coordination unit, made up of: (i) a full-time provincial coordinator or delegate; (ii) support staff; and (iii) specialized consultants, as follows:

a. Environmental monitoring system component: (i) four institutional strengthening specialists; (ii) four environmental impact assessment specialists; (iii) four water quality specialists; (iv) four air quality specialists; and (v) one counterpart expert per province (to be furnished at no cost to the program).

b. Watershed management structures component: (i) two financial specialists; (ii) two institutional specialists; (iii) two watershed management specialists; (iv) two environmental experts; and (v) one counterpart expert per province (to be furnished at no cost to the program).

- c. Industrial pollution control component: (i) two institutional specialists; (ii) two financial specialists; (iii) two specialists in industrial pollution; and (iv) one counterpart expert per province (to be furnished at no cost to the program).
- 3.40 The team of experts formed for each program component would be headed by one of the aforesaid specialists.
- 3.41 The borrower must furnish the Bank with satisfactory evidence to the effect that the province in question: (i) has enacted the implementing agreement; and (ii) has set up a provincial-level program coordination unit with the necessary authority and appropriate staff, prior to the first disbursement of resources under each implementing agreement (see Appendix IV, Section VI, paragraph 6.1(c.))
- C. Program financial management
- 3.42 As executing agency, the SRNAH has overall financial management responsibility for the present operation. The executing agency will directly administer all Subprogram A and C resources.
- 3.43 Subprogram B resources are divided into the following two categories for program financial management purposes (the corresponding figures for the allocation of Subprogram B resources are available in the technical files.
- a. Costs associated with: (i) federal coordination of Subprogram B; (ii) coordination of each component or pilot program, based in the city of Buenos Aires and rotating among the subexecuting provinces; (iii) supporting specialists for each component coordinator, based in Buenos Aires, with frequent travel to the subexecuting provinces; (iv) the share of the specialized technical assistance cost item corresponding to the SRNAH; (v) travel and subsistence allowances for these consultants allocated to the SRNAH counterpart in the budget. All of these costs are itemized in the detailed budget under the column corresponding to the SRNAH;
  - b. Costs associated with: (i) provincial unit personnel; (ii) the share of the specialized technical assistance cost item corresponding to the SRNAH; (iii) facilities and logistics for seminars; (iv) travel and subsistence allowances for these consultants allocated to the provincial counterpart in the budget; (v) communications, materials and supplies, also included under the provincial counterpart.
- 3.44 The SRNAH Technical/Administrative Section will be responsible for running the program management unit, which will be made up of: (i) four project management experts; and (ii) administrative

support staff, with all corresponding personnel included under the SRNAH contribution.

- 3.45 The SRNAH will present the Bank with annual program financial reports, accompanied by an independent auditor's report. Program audits will be performed by a single auditing firm and will include financial transactions conducted by the SRNAH and the provinces.

D. Procurement of goods and services

- 3.46 The following procurements of goods and services are envisioned for program execution purposes (see special condition 8(e) in the proposed resolution):

- a. Computer equipment for agencies targeted by institutional strengthening activities and for the SRNAH in particular;
- b. Computer and peripheral equipment (work stations, PCs and modems) for the SRNAH and participating provinces for the environmental information system;
- c. Software for geographic information systems, processing of remote sensing imagery, plotting and digitalization of geographic data;
- d. Word processing, spreadsheet and data base programs;
- e. Retention of a consulting firm to furnish 295 international consultant/months of services, including: (i) long-term consultants in environmental policy, environmental legislation, institutional strengthening, environmental economics and environmental education; (ii) computer experts; (iii) environmental training experts; and (iv) a panel of supporting experts for the environmental policy and legislation components.
- f. Recruitment of local consultants.

- 3.47 Procurements of goods, works and/or services scheduled to be financed with program resources (see Annex III-4) will be made in accordance with normal Bank procedures, to be appended to the loan contract in the form of an annex. The executing agency will take all necessary measures to ensure that procurements of goods and services are made at a reasonable cost, allowing for considerations of quality, efficiency, etc.

- 3.48 All program-financed equipment (specifications available in the technical files) will be procured by the executing agency, regardless of its final destination. User agencies will retain custody of the corresponding equipment upon the conclusion of the program.

**E. Program promotion and advertising**

- 3.49 The program provides for an information campaign to be conducted as part of its environmental education and pilot program components to convey the messages designed thereunder and, at the same time, announce its existence and objectives to the Argentine public.
- 3.50 It also provides for a series of meetings between government and community representatives, open to the public, with the corresponding announcements containing a mention of their source of financing.
- 3.51 Likewise, program-financed publications (environmental digest, educational materials) will include a mention of the name of the program and its source of financing.

**F. Execution period and investment schedule**

- 3.52 The program execution period covers a span of five years, with a five-year disbursement period. The investment schedule is as follows:

INVESTMENT SCHEDULE (in US\$ 000)							
	1993	1994	1995	1996	1997	1998	TOTAL
IDB-OC	250	1,500	1,500	1,000	500	250	5,000
IDB-SF	500	3,000	4,500	5,500	6,000	5,500	25,000
COUNTERPART	500	2,000	2,000	2,000	1,500	600	8,600
TOTAL	1,250	6,500	8,000	8,500	8,000	6,350	38,600
		INTEREST	COMMITMENT FEE				
	OC	0.0750	0.0075				
	SF	0.0400	0.0000				
CALCULATIONS OF INTEREST AND COMMITMENT FEE							
	1993	1994	1995	1996	1997	1998	TOTAL
IDB-OC Interest	-	75,000	187,500	281,250	337,500	360,938	1,242,188
IDB-SF	-	80,000	230,000	430,000	660,000	835,000	2,235,000
IDB-OC Commitment fee	18,750	35,625	24,375	13,125	5,625	1,875	99,375

**G. Advance**

- 3.53 In accordance with standard Bank practice, it is recommended that the program furnish an advance in an amount not to exceed 10% of the total value of the corresponding loans, in the appropriate currency.

H. Allowability of costs and retroactive financing

- 3.54 The Bank will allow up to the equivalent of US\$200,000 in costs associated with the operation of the SRNAH coordination unit and of provincial coordination units during the period prior to loan approval for financing with loan proceeds (see Appendix II, special condition 7(d) of the proposed resolution) and the equivalent of US\$300,000 for financing under the local contribution (see Appendix III, Recommendation A.2).
- 3.55 The program provides for coverage of the following major cost items, among others, subject to their timely substantiation: (i) coordination unit personnel, particularly the unit director; (ii) key supporting administrative personnel to assist in the development of administrative/financial procedures; (iii) mobilization costs incurred by the provinces in preparation for the signature of the corresponding agreements; (iv) costs associated with the procurement of scheduled consulting services. These costs are allowable as of January 1, 1993, subject to the satisfaction of requirements substantially similar to those established under the respective resolutions and under the provisions of the loan contract.

I. Program supervision and monitoring

- 3.56 The need to branch out into different fields in affording a comprehensive solution to the institutional and technical problems identified by the project team produced a rather complex program design. Nevertheless, to prevent this complex design from hampering program execution and to minimize the risks discussed in this document, the team has provided for a sound technical assistance, monitoring, evaluation and supervision structure enabling the executing agency and the Bank to quickly detect and remedy any problems.
- 3.57 The elements of the program supervision component are as follows: (i) establishment of a monitoring and evaluation committee with the Bank participating as observer; (ii) mandatory preparation of a program execution plan, to be regularly updated and included in the corresponding progress reports, through which the Bank can keep abreast of the status of program execution and based on which it can recommend any necessary changes; (iii) mandatory performance of a mid-term evaluation; and (iv) a requirement to the effect that the Bank have direct access to reports presented by the consulting firm.
- 3.58 The program monitoring and evaluation committee will be established within six months from the effective date of the loan contract (see Appendix III, Recommendation A.4(a.)) The committee will meet at least once every six months to verify implementation of the program execution plan and suggest any necessary changes. It will also issue recommendations for interagency coordination. The committee

will be composed of: (i) one representative from the SRNAH, who would serve as its chairman; (ii) one representative from the Ministry of Economic Affairs; (iii) one representative from the Federal Council on the Environment, acting for the beneficiary provinces; (iv) one representative from each of the four subexecuting provinces; (v) one representative of the NGOs; (vi) the program manager; and (vii) the director of the program coordination unit, who would serve as its secretary. The Bank may attend committee meetings as an observer.

- 3.59 The program monitoring and evaluation committee will conduct a mid-term evaluation at the beginning of the third year from the effective date of the loan contract (see Appendix III, Recommendation A.7). This evaluation will be reviewed by the project team. In preparation for this evaluation, the executing agency shall present a proposal on recommended procedures, criteria and parameters for evaluating the progress of program execution within one year from the effective date contract of the (see Appendix III, Recommendation A.5).
- 3.60 The evaluation methodology to be presented by the executing agency should include the following criteria: (i) flexibility and timeliness of hiring of scheduled consulting services (both the consulting firm and the individual consultants); (ii) the quality and coverage of the final environmental management proposal and its consistency with the overall program strategy; (iii) usefulness of periodic reviews of the execution plan as a means of program monitoring; and (iv) incorporation of subexecuting provinces in the program.
- 3.61 The monitoring and evaluation committee will consider the advisability and feasibility of conducting an ex post evaluation. If deemed necessary, the committee will recommend funding alternatives for the evaluation.



#### IV. FEASIBILITY

##### A. Environmental feasibility

- 4.1 Execution of this program is crucial to the solidification of an efficient and effective environmental management system in Argentina, whose establishment is essential for the success of other operations in the country. More specifically, program execution will provide an important benefit in support of other Bank-financed operations, in the sense that activities envisioned under this program, given their policy-setting and innovative nature, are pivotal to the successful implementation of environmental sanitation, pollution control, soil and water management and other projects.
- 4.2 The program is expected to produce the following positive indirect environmental impact:
  - a. Support for the prevention and control of incidents and sources of environmental degradation by organizing the work and functions of different federal and provincial agencies, establishing a clear delineation of responsibilities in this area;
  - b. Improvement in the operating capacity of environmental agencies at the provincial level through a reorganization of their functions, manpower training, the provision of basic operating equipment, the transfer of information and the accumulation of experience through the operation of pilot systems;
  - c. Improvement in the coordination and supervision capacity of the federal agency responsible for ensuring the coherence and consistency of preventive measures and control procedures at the provincial level;
  - d. Public consciousness-raising and education in regard to the importance of taking preventive action against further damage to the country's natural wealth and to human environmental quality and the pressing need for changes in individual and community behavior to control and moderate activities identified as contributing to environmental degradation.
- 4.3 Another important benefit is the establishment of structures and procedures to assess the environmental impact of public and private enterprises and of a licensing system using the findings from these assessments as a basis for the issue of permits and licenses.
- 4.4 Equally important is the testing and possible replication of organizational and financial models to address two basic problems in Argentina, namely the lack of integrated watershed and natural resource management and pollution from small and medium-sized

industries in three branches of industry identified as the country's worst sources of industrial pollution.

- 4.5 The activities envisioned under the present program are institutional and organizational in scope and should produce better structures and procedures for the solution of Argentina's environmental problems. Thus, they are not expected to have any negative indirect environmental impact.
- 4.6 The Environmental Management Committee discussed the environmental summary of the present operation at its May 18, 1992, meeting and classified it in Category I.

B. Technical feasibility

- 4.7 Strengthening the operating capacity of federal and provincial environmental agencies should improve management and control of the country's environmental problems. To this end, the program will focus on organizing the work and functions of agencies responsible for preventing and controlling incidents and sources of environmental degradation in Argentina and on improving interagency coordination and cooperation between these agencies and the country's economic policy-making bodies.
- 4.8 The program will support the development of permanent structures and procedures for assessing the environmental impact of public and private enterprises and of a licensing system using the findings from these assessments as a basis for the issue of permits and licenses.
- 4.9 The use of environmental impact assessment procedures and of social and environmental benefit analyses, in particular, will help improve project design, as has been consistently demonstrated in countries where environmental impact assessments have been made an integral part of the project design process. More specifically, environmental impact assessments afford an opportunity to identify preventable potential costs whose inclusion in cost estimates for proposed works generally produces a positive "bottom line."
- 4.10 The inclusion of preventive and environmental protection measures produces environmental, social and economic benefits as explained below in greater detail.
- 4.11 Proposed environmental protection, watershed management, environmental impact assessment and industrial pollution control models have all been successfully used in other countries and will be tailored to specific conditions in Argentina.

C. Institutional feasibility

- 4.12 The program will be planned and coordinated at the federal level by the program coordination unit and steering committee to be established within the SRNAH and by the corresponding coordination units in each province.
- 4.13 The steering committee, to be made up of senior SRNAH officials, will ensure that the program emphasis has the necessary internal support at the policy-making level. This backing is vital to the introduction and viability of institutional reforms designed with program assistance.
- 4.14 The coordination unit will guide the course of program activities. This unit will be appropriately staffed to enable it to successfully perform its main tasks. Provincial units will have a delegate from the provincial government staff, who will operate as a liaison agent with the program coordination unit and ensure the internal coherence of program activities.
- 4.15 The purpose of the core units scheduled to be established within the internal structure of the SRNAH is to ensure the active involvement of each of its subdivisions in program activities, such that the program becomes a joint effort by all arms of the SRNAH rather than remaining an outside operation. These units will be staffed with specialists 15/ in areas in which the present SRNAH staff is deficient to compensate for distortions in its allocation of resources, which is currently less than optimal, both for the fulfillment of its own objectives and for the attainment of program objectives.
- 4.16 As the program's executing agency, the SRNAH will have important management and coordination responsibilities. The SRNAH is a new executive agency and, as such, has no experience in project implementation with international financing. Its Technical/Administrative Section will be responsible for program administrative and financial management in coordination with the provinces. This section is currently in the midst of changing over to new financial systems required by the country's new Financial Management Act and will need to set up new administrative and financial management and accounting systems for program purposes. Accordingly, provision is made for preliminary technical assistance prior to program execution, financed by the Bank's Project Preparation Facility (PPF), to assist in the design and installation of these systems.

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15/ The staffs of these units will initially be composed largely of consultants. The SRNAH restructuring plan should provide for the phase-in of necessary personnel to strengthen its institutional capacity as part of the regular budget.

4.17 Likewise, institutional operating capacity at the provincial level varies from province to province and from one executing agency to another within each province:

- a. The province of Buenos Aires will establish a program execution unit, but needs to develop a technical and legal framework for implementation of the pilot programs.
- b. In the province of Córdoba, the Subsecretaría de Gestión Ambiental [Environmental Management Division] is plagued by a shortage of physical and financial resources, although it does have personnel with expertise and experience in environmental impact assessments and watershed management.
- c. The province of Mendoza has the capability to perform environmental impact assessments and to implement industrial pollution control strategies. Its Ministry of Environment, Urban Development and Housing has sufficient human, financial and physical resources to support program execution.
- d. The province of Misiones, which is involved only in the environmental impact assessment component, needs to establish a legal framework for these assessments and to develop a technical capability to perform and/or supervise these studies.

4.18 The provinces of Buenos Aires, Córdoba and Misiones will all need to establish new administrative and financial management systems for the program and, in all likelihood, will require assistance in the design and installation of these systems. The province of Mendoza already has an operational program administrative and financial management system for the program. The program's institutional and financial specialists could work with provincial government officials in Mendoza to assist in the establishment of standard administrative and financial management systems for the four subexecuting provinces.

4.19 In light of these constraints, the program provides for the postponement of pilot programs until such time as the subexecuting provinces can show evidence of possessing the technical and managerial capabilities required for their implementation. To support them in this preparatory work, the institutional strengthening component will concentrate on these four provinces throughout the first year of program execution.

D. Economic feasibility

4.20 The program has special features which do not lend themselves to a conventional cost-benefit analysis. It is expected to produce mainly long-term tangible benefits (increased productivity, sustainability of resources, savings in health costs) as well as intangible benefits that defy quantification in monetary terms (preservation of ecological balance, better quality of life,

conservation of natural beauty). The direct benefit sought from the establishment of a national environmental system is assistance in reversing and controlling the process of environmental degradation. Thus, the program's economic feasibility cannot be established through measurements such as rates of return but, rather, needs to be appraised through a qualitative assessment of future benefits once the proposed national environmental management system has been established and instituted.

- 4.21 Moreover, an economic appraisal of corresponding pilot programs also has its limitations, in that the main goal of these pilot programs is the development and recommendation of organizational structures. In short, their envisioned benefits are all derived from the proposed national environmental system. However, the type of organizational structure recommended and implemented thereunder will have direct economic effects which can be measured in quantitative terms and will be assessed as part of the study and final selection of proposed structures.
- 4.22 Given the magnitude of Argentina's environmental problems (and the high economic cost they entail) and the fact that this situation is due in great part to the country's lack of a political and legal framework in this area, insufficient basic data, and a relatively low level of environmental awareness on the part of the population, there is clear economic justification for the program, since the proposed environmental program will furnish the minimum tools necessary to allow both the Secretaría and the provincial governments to fulfill their mission of establishing a structure for environmental management in Argentina.
- 4.23 Economists specializing in the area of environmental and natural resource management will provide economic guidance in the framing of environmental policy and legislation. Analyses will be done and proposals made for all economic activities directly affecting environmental quality (e.g., air, water and soil) and the use of natural resources. The economic evaluation to be conducted during program execution will provide input for proposals on optimum control mechanisms - based on economic and environmental feasibility - and ensure their inclusion in the final environmental management proposals. This study will also provide cost-effectiveness guidelines for the proposed environmental information and education systems so as to maximize program benefits. In addition, the environmental policy framework will be examined within the economic integration process under way (MERCOSUR), outlining its economic implications and plotting the strategy Argentina should follow.
- 4.24 For environmental monitoring activities under the pilot programs, proposals should include EIAs in their economic evaluations to ensure that the environmental costs and benefits associated with the different types of projects are an integral part of economic evaluation. The focus will be mainly on the short-, medium-, and long-term economic impact of the implementation of EIAs, coupled

with a system of permits for different kinds of economic activity, setting of standards, and zoning. The economic evaluation will determine the impact within and between regions, as well as define the role of the private and public sectors in carrying out EIA activities.

- 4.25 The design of organizational structures for watershed management should pursue a strategy of rational and sustainable use of resources, evaluating different alternatives and proposing the one that offers the greatest benefits (both environmentally and economically) at the least possible social cost. As part of the economic evaluation, the socioeconomic characteristics and activities of the watersheds covered will be defined and models will be developed for prioritizing different water uses according to the degree of importance of the respective economic activity and the need to protect the environment and ensure the sustainable use of resources. The economic studies will also evaluate the feasibility of rate systems, taxes, fees for permits, concessions, as well as other measures. Furthermore, the economic policy guidelines necessary for protecting resources will be framed and their economic impact on the provincial economies and on economic relations between provinces will be assessed.
- 4.26 Pollution control and prevention will adopt a clearly defined strategy for resource management, stemming from the prior definition, prioritization and organization of the various possible uses of the receiving bodies affected by pollution from program-targeted industries. The formulation of this strategy will be guided by considerations of technical and economic feasibility against the backdrop of Argentina's current political and social setting. This task will involve the use of economic and physical models designed to forecast the effectiveness of measures to control discharges and emissions in the relevant areas and their impact on the social well-being and quality of life of the human population groups directly or indirectly affected.
- 4.27 Alternatives for controlling industrial pollution will be examined from an economic standpoint. These alternatives include: (i) a system of effluent-based taxes geared toward attaining a specific environmental standard; (ii) control measures and fines; (iii) a system of negotiable pollution permits or quotas (negotiable among polluting companies); and (iv) temporary subsidies or incentives to encourage industries and firms to adhere to stricter environmental standards. Since the environmental impact of each of these measures may differ in the extent to which environmental goals are met and in their impact on industrial organization and structure as well as on the income and employment levels of the population affected, the most appropriate economic measures should be identified to ensure that water quality standards can be met at the least possible social cost.

E. Financial feasibility

- 4.28 The total program cost is US\$38.6 million, with US\$30 million to be financed by the Bank and US\$8.6 million in counterpart funding.
- 4.29 The Ministry of Economic Affairs has agreed to furnish US\$8.6 million in counterpart funds. The budget allocates these funds to consulting costs, financial expenses and SRNAH costs in support of program activities (offices, equipment, materials and inputs).
- 4.30 The feasibility study concludes that: (i) the Argentine nation has the necessary financial resources to cover necessary counterpart funding; (ii) the executing and subexecuting agencies have internal management and accounting structures for the administration of program funds; and (iii) the necessary measures have been taken to ensure the due and proper use of program resources, as explained in the section on program execution, in terms of an auditing system and supervision procedures. Consequently, the program is considered to be financially viable.

F. Program impact on women

- 4.31 The issue of the role of women in the environmental program will require further study during the course of program execution. It has not been possible to establish any distinction between the effect of men and women on environmental problems with the information available to date. However, it is important to study the special role played by women within the family unit and in the work place and determine how, in the context of this role, they can participate in and benefit from the program. A special effort will be made to encourage participation by women in the education program and in the pilot programs.

G. Risks

- 4.32 The risk posed by the institutional weakness of the recently formed SRNAH, combined with the highly centralist tradition of government in Argentina, is that guidelines and standards emanating from program activities at the national level, particularly in the environmental legislation and policy areas, may not be duly reflected in provincial government policy and legislation. This is an important concern in light of the need for consistent action at both levels of government to address countrywide environmental problems in a coherent fashion. To mitigate this risk, the program: (i) gives the SRNAH a leading role in technical and financial program management with the dual goal of providing "on-the-job" institutional strengthening and of solidifying its position vis-à-vis provincial governments; (ii) has a highly participatory design allowing provincial governments to play an active role in the framing of policy and strategy proposals, new legislation, etc.; and (iii) includes all 24 provinces within the scope of its institutional strengthening activities.

- 4.33 This institutional weakness of the SRNAH, combined with the fact that, as a new government agency, it lacks experience in the administration of international loans is viewed as a major risk. To minimize this risk, the program design provides for the participation of an international consulting firm to serve in the capacity of an organizational and technical "right arm" to the SRNAH throughout the program execution process. The consulting firm will assure the quality of program output and provide the executing agency with the advisory services of a panel of high-level experts made up of internationally renowned specialists in their field. This panel of experts will primarily provide guidance in the performance of what are considered its most complex tasks from the conceptual standpoint, such as policy-making and the establishment of a regulatory framework in the area of environmental law.
- 4.34 Program recommendations should ultimately be converted into administrative decisions designed to strengthen federal and provincial agencies and improve lawmaking, information, education and other similar systems. There is always the risk that program recommendations may not be duly implemented. The program addresses this concern through the following mechanisms: (i) a commitment on the part of the country to implement institutional strengthening measures designed by the program and, in particular, the SRNAH restructuring plan as agreed on by the country and the Bank; (ii) a commitment on the part of Argentina's executive branch to issue necessary decrees and administrative decisions to implement policy and strategy instruments designed by the program and approved by participating provincial government agencies and grassroots organizations; (iii) a requirement to the effect that the executive branch must introduce the necessary bills in Congress for this same purpose; and (iv) an investment in promotional and community education programs to build public pressure in support of program objectives.
- 4.35 In a final effort to mitigate identifiable risks, the proposed design includes various monitoring, evaluation and supervision mechanisms for use throughout the course of program execution.
- 4.36 The program propounded in this document is of vital importance, as the first undertaking on such a scale to strengthen local capacity to address increasingly complex and alarming environmental problems. The Argentine government is extremely interested in making progress in this area, to enable it to promptly and efficiently halt the destruction of its natural resource base and the growing damage to the quality of the human environment. The program should help it attain these objectives, with Bank support operating as a catalyst for federal and provincial government efforts in pursuit of common environmental goals.



H. Recommendation

- 4.37 In light of the program's technical, institutional, economic, financial and environmental feasibility, we recommend that it be approved by the Board of Executive Directors and hereby enclose all the necessary normative documents for such purpose.

## **TERMS OF REFERENCE FOR THE CONSULTING FIRM**

### **I. INTRODUCTION**

- 1.1 The goal of the Institutional Strengthening Program for Environmental Management is to help promote environmental management in Argentina by furnishing technical assistance services and strengthening the legal and institutional framework for national, provincial and - indirectly - for municipal environmental systems. The program would also finance the implementation of three pilot programs for the prevention and control of environmental degradation: an environmental monitoring system; institutional structures for integrated watershed management; and industrial pollution control. Lastly, the program would furnish resources for the preparation of environmental project proposals.

### **II. OBJECTIVES OF THE CONSULTING SERVICES**

- 2.1 The proposed consulting services are designed to furnish the executing agency with technical assistance throughout the program execution period. The consulting firm will serve as a "right arm" to the country team, assisting counterpart personnel in the implementation of all Subprogram A components: environmental policy, environmental legislation, institutional strengthening, environmental education and environmental information system. It will have the main responsibility for designing a restructuring plan for the SRNAH.
- 2.2 The consulting firm will consolidate the experience gleaned from pilot programs and establish feedback mechanisms for these programs.

### **III. RESPONSIBILITIES OF THE CONSULTING FIRM**

#### **A. General responsibilities**

- 3.1 The consulting firm will be responsible for the following general tasks:
- a. Selection and recruitment of required international consultants;

- b. Preparation and presentation of detailed terms of reference for additional consultants to be engaged for program purposes, subject to SRNAH approval;
- c. Provision of support services to the program coordination unit in updating the execution plan and time table for program development and execution and for semiannual and final program evaluations;
- d. Development of organizational, planning, monitoring and evaluation guidelines for implementation of Subprograms A and B;
- e. Supervision of work performed by Subprogram A consultants and support services for the supervision of Subprogram B consultants;
- f. Provision of advisory services to the SRNAH for the selection and procurement of computer hardware and software;
- g. Preparation and presentation of preliminary, semiannual and final reports and any and all special reports requested by the SRNAH.

B. Specific responsibilities

- 3.2 The consulting firm will furnish 295 international consultant/months for performance of the tasks described in these terms of reference.
- 3.3 The consulting firm will support the executing agency in the performance of tasks envisioned under Subprogram A.
- 3.4 The consulting firm will be responsible for designing a restructuring plan for the SRNAH.

IV. SUMMARY TERMS OF REFERENCE FOR CONSULTANTS TO BE FURNISHED BY THE CONSULTING FIRM

A. International consultants

1. Institutional strengthening expert (team leader)

- 4.1 The institutional strengthening expert will serve as leader of the international team of experts, except as otherwise recommended by the consulting firm in its proposal.
- 4.2 This consultant must have formal academic training in institutional planning and strengthening and specialized academic training and experience in the strengthening of environmental institutions,

preferably in Latin America, with a minimum of 10 years experience in this field.

- 4.3 The counterpart for this consultant is the institutional strengthening coordinator attached to the program coordination unit. The consultant will work with this coordinator in assisting local consultants and SRNAH regular staff members in all tasks associated with this program component.
- 4.4 Working with the country team coordinator, this consultant will be responsible for: (i) designing a restructuring plan for the SRNAH and supervising its implementation in conjunction with SRNAH officials and experts; (ii) supporting institutional specialists attached to the provincial-level institutional strengthening team, supervising the preparation and implementation of work plans for the provision of technical assistance, first, to the subexecuting provinces and, later, to the other provinces and selected municipalities; (iii) coordinating training activities under the institutional strengthening component and supervising the work of training personnel engaged by the consulting firm.
- 4.5 This consultant will be assigned to the program for a period of 42 months or, in other words, for the duration of this program component, based in Buenos Aires, with occasional travel to the provinces.

## 2. Environmental policy expert

- 4.6 The environmental policy expert must have specialized academic training in the planning and development of environmental policy, with a Ph.D. or equivalent academic degree. He/she must have a minimum of 10 years work experience in environmental planning and management of environmental institutions, preferably in Latin America.
- 4.7 The counterpart for this consultant is the policy coordinator attached to the program coordination unit. Working with this coordinator, the consultant will be responsible for furnishing technical assistance to local consultants and regular SRNAH staff members attached to the environmental policy core unit to be established in the Institutional Relations Division for program execution purposes.
- 4.8 The main tasks of this consultant are to: assist in the framing, discussion, study and finalization of environmental policy proposals, assist in implementation of the Federal Environmental Agreement and recommend necessary changes in the integration process promoted by the Southern Common Market. He/she will also coordinate the recruitment and services of the panel of experts providing periodic guidance, particularly in the environmental policy area.

- 4.9 This consultant would be assigned to the program for a period of 18 months, based in Buenos Aires, with occasional travel to the provinces.

3. Environmental legislation expert

- 4.10 The environmental legislation expert must have formal academic training in law, with specialized training in environmental law and experience in the drafting, critical analysis and reform of environmental legislation in countries with a legal and legislative tradition similar to that of Argentina. He/she must have a minimum of 10 years experience in this field.
- 4.11 The counterpart for this consultant is the environmental legislation coordinator attached to the program coordination unit. Working with this coordinator, the consultant will be responsible for furnishing technical assistance to local consultants and regular SRNAH staff members attached to the environmental legislation core unit to be established in the Reports, Legislation and Records Section for program execution purposes.
- 4.12 The tasks of this consultant are to: assist in the drafting of a basic environmental law based on environmental policy proposals, recommendations emanating from seminars conducted prior to program execution and guidance from the panel of experts; furnish advice and assistance for the study of existing environmental legislation and legal precedents; recommend interim arrangements for the transition between current and proposed new legislation; and assist in compiling an environmental digest.
- 4.13 This consultant will be assigned to the program for a period of 18 months or, in other words, for the duration of this program component, based in Buenos Aires, with some travel required.

4. Environmental economist

- 4.14 This consultant must have specialized academic training in environmental economics and the economics of natural resources, with a minimum of 10 years work experience in this area.
- 4.15 The environmental economist will be responsible for studying the potential environmental impact of proposed environmental policy, working in conjunction with Subprogram A and pilot program specialists to ensure that all economic recommendations and proposals are coherent and consistent with program objectives.
- 4.16 The environmental economist will prepare an assessment of current legislation and policy instruments for natural resource management and the control of environmental quality, including a study of the economic policy framework and its relation to the use of natural resources.

- 4.17 This consultant will evaluate and recommend alternative instruments for environmental protection and conservation of natural resources based on an analysis of the corresponding socioeconomic costs and benefits and, where applicable, assess the viability of instruments such as dumping charges for wastewater or other effluents, subsidies, transferable pollution permits, fines and control procedures, mandatory standards, zoning, etc.
- 4.18 He/she will also evaluate the environmental policy framework against the context of the Southern Common Market economic integration process and its economic implications.
- 4.19 This international economist will be posted to the program under contract for a period of 24 months, based in Buenos Aires, with occasional travel to the provinces.

5. Environmental education expert

- 4.20 The environmental education expert must have specialized academic training in environmental education, with a master's degree or better and a minimum of 10 years experience in the development of preliminary designs and implementation plans for community education programs and targeted education programs for specific audiences.
- 4.21 The main responsibilities of this consultant are to assist in the designing of formal and nonformal education programs, provide guidance for the development of environmental curricula for the formal education system and supervise the performance of nonformal education activities.
- 4.22 This expert will be posted to the program under contract for a period of 33 months, based in Buenos Aires, with occasional travel to the provinces.

6. Computer specialist

- 4.23 The computer specialist must have specialized academic training at the master's level in the design of information systems, with a minimum of 10 years experience in systems engineering or a similar area. He/she must have previous experience in setting up geographic information systems, including the organization of physical and socioeconomic data bases.
- 4.24 This consultant will be responsible for the overall conception of the environmental information system, furnishing advice and assistance for system design and installation.
- 4.25 This consultant will supervise the work of computer hardware and software specialists engaged by the consulting firm to form part of the international team.

- 4.26 The computer specialist will be posted to the program under contract for a period of 20 months, based in Buenos Aires, with occasional travel to the provinces.

7. Computer hardware specialist

- 4.27 This consultant must be a systems engineer or comparable computer hardware specialist, with a minimum of 5 years experience.
- 4.28 The hardware specialist will be attached to the team of consultants responsible for the design and installation of an environmental information system at the SRNAH, with links to all the country's provinces. He/she will be responsible for developing technical specifications for the procurement of computer equipment to serve as the platform for the environmental information system based on the preliminary make-up of equipment.
- 4.29 This consultant will supervise equipment installation and operation efforts, training local counterpart personnel attached to the provincial-level institutional strengthening team.
- 4.30 This consultant will be posted to the program under contract for a period of 10 months, based in Buenos Aires, with occasional travel to the provinces.

8. Computer applications (software) specialist

- 4.31 This consultant must be a systems engineer or comparable specialist in the development and procurement of computer software, with a minimum of 5 years experience.
- 4.32 The computer applications (software) specialist will be attached to the team of consultants in charge of the design and installation of an environmental information system at the SRNAH, with links to all the country's provinces. He/she will be responsible for the selection of the necessary applications and programs for system operation and the development of special environmental information system applications. He will develop a list of system software based on preliminary system specifications.
- 4.33 This consultant will supervise the installation and operation of all system software, training local counterpart staff and members of the provincial-level institutional strengthening team.
- 4.34 This consultant will be posted to the program under contract for a period of 10 months, based in Buenos Aires, with occasional travel to the provinces.

## 9. Trainers

- 4.35 These consultants must have the equivalent of at least a master's degree and a minimum of 10 years experience in their respective fields of expertise which, in turn, must be related to pollution control, quality of the human environment, renewable and nonrenewable natural resource management, the prevention and mitigation of negative environmental impact and the conservation, protection and operation of wildland management areas. These requirements will be fine-tuned based on the assessment of SRNAH and provincial training needs.
- 4.36 Training services will be dispensed in the form of short-term training courses conducted in the city of Buenos Aires and in the provinces.
- 4.37 The work of these experts will be supervised by the international institutional strengthening specialist.

### B. Panel of experts

- 4.38 The panel of experts would be made up of consultants with the necessary capabilities to furnish guidance to local and international team members for environmental policy-making, lawmaking and institutional strengthening activities. All panel members will be renowned international experts with a distinguished reputation and service record in the environmental area. They will undertake field missions to Argentina to evaluate the progress of different program components and issue recommendations in the form of reports. The monitoring and evaluation committee will review the reports produced by the panel of experts and make recommendations in regard to their implementation.
- 4.39 The members of the panel of experts will be selected from a list of candidates drawn up by the consulting firm for consideration by the SRNAH and the Bank. The appointment, replacement or substitution of panel members during the course of program execution in accordance with duly established needs is subject to clearance by the SRNAH and the Bank.
- 4.40 These experts will be responsible for reviewing documentation furnished prior to each field mission, attending scheduled meetings in Argentina and issuing individual and joint recommendations.

### C. Ad hoc consulting services

- 4.41 The consulting firm will have a special budget for the procurement of high-level international consulting services in response to needs identified by the executing agency during the course of program operation. The executing agency and the consulting firm will work together to establish mutually agreeable terms of reference



for specific consulting services on a case-by-case basis. The consulting firm will present the executing agency with the names of at least three candidates for each necessary procurement.

**V. REPORTS**

- 5.1 The consulting firm will furnish the executing agency with the following reports, with a copy to the Bank:
- a. A preliminary report, to be presented within 60 days from the date of contract signature by the government and the consulting firm, providing the following minimum information: a detailed semiannual timetable for scheduled activities and final terms of reference for individual consultants.
  - b. Semiannual progress reports, to be presented within 30 days from the end of each six-month period, providing detailed information on all activities conducted during the course of the reporting period, an evaluation of completed activities and of performance against general and specific program objectives, with emphasis on the progress of training and institutional strengthening activities, and a projection of work scheduled to be performed during the course of the upcoming six-month period, with recommendations for the corresponding action plans and other pertinent measures.
  - c. Special reports, as may reasonably be required by the SRNAH.
  - d. A final report, to be presented within 60 days from the conclusion of its services, providing a summary of work performed against stated program objectives, with emphasis on progress in the institutional strengthening area and in the implementation of policy proposals and new legislation.

**ARGENTINA**  
**INSTITUTIONAL STRENGTHENING PROGRAM FOR ENVIRONMENTAL MANAGEMENT**  
**(AR-0065)**

**EXPRESSIONS OF INTEREST**  
**DRAFT VERSION OF NOTICE OF PROCUREMENT OF CONSULTING SERVICES**

The Secretaría de Recursos Naturales y Ambiente Humano (SRNAH) invites the submission of expressions of interest, in letterform, from consulting firms or joint ventures interested in being considered for the provision of services in connection with the execution of an institutional strengthening program for environmental management in Argentina, for which it has applied for a loan from the Inter-American Development Bank (IDB).

The selected consulting firm will have the main responsibility for furnishing technical assistance for activities in support of the development of an environmental management system under the above-mentioned program (environmental policy, legislation, institutional strengthening, education and information).

All applicants must be prominent international consulting firms with extensive experience in the environmental area and a knowledge of Argentina, registered in the DACON. The selected firm will furnish:

295 international consultant/months of services, broken down as follows: (i) five long-term consultants specializing in environmental policy, legislation, institutional strengthening, economics and education; (ii) three computer science experts; (iii) three environmental trainers; and (iv) a panel of supporting experts for implementation of the program environmental policy and legislation components.

Consulting firms interested in furnishing the services described above, having their principal place of business in a member country of the Bank and with personnel possessing the necessary qualifications, are invited to submit information on their professional qualifications and previous experience in implementing similar programs. Information on selection criteria and qualification requirements for consulting firms is available from the SRNAH.

Responses to this procurement notice must be received by November 15, 1993, at the Secretaría de Recursos Naturales y Ambiente Humano, Unidad de Coordinación del Programa BID [IDB Program Coordination Unit], San Martín 459, 4to. piso, C.P. 1004, Buenos Aires, Argentina (telephone: 325-7677 or 322-8519; fax: 394-6643 or 325-6048).

## SUMMARY LIST OF INDIVIDUAL CONSULTANTS 1/

TITLE	No.	SPECIALTY	M/M
<b>ADMINISTRATION</b>			
Coordination unit director	1	Project manager	36
<b>ENVIRONMENTAL POLICY</b>			
Coordinator	1	Environ. policy planner	18
<b>ENVIRONMENTAL LEGISLATION</b>			
Coordinator	1	Attorney/environmental law	28
<b>INSTITUTIONAL STRENGTHENING</b>			
Coordinator	1	Instit. strengthening specialist	34
Institutional experts	4	Administrative management	32
Environmental experts	4	Environmental specialist	32
Financial expert	1	Specialist in accounting & finance	32
Economist	1	Environmental & resource economist	32
<b>ENVIRONMENTAL EDUCATION</b>			
Environmental trainers	8	Environ. education experts	24
<b>ENVIRONMENTAL INFORMATION</b>			
Computer experts	3	Information systems	32
<b>SUBPROGRAM II</b>			
Coordinator	1	Management and planning	35
<b>ENVIRONMENTAL MONITORING</b>			
Coordinator	1	Environmental planner	35
Environmental expert	1	Environmental monitoring	35
Economist	1	Environmental economist	35
Provinces:			
Institutional specialists	4	Environ. management/administration	27
EIA Specialists	4	Environmental planner	27
Water quality specialists	4	Water quality control	13
Air quality specialists	4	Air quality control	13
<b>INSTITUTIONAL FRAMEWORK FOR WATERSHED MANAGEMENT</b>			
Coordinator	1	Admin. & watershed management	35
Institutional expert	1	Institutional planning	35
Watershed management specialist	1	Admin. & watershed management	35
Agricultural/forestry engineer	1	Agricultural/forestry engineering	12
Environmental engineer	1	Environmental engineer	12
Economist	1	Environmental economist	35
Provinces:			
Financial specialists	2	Finance	35
Institutional experts	2	Admin. & environmental management	35
Watershed management experts	2	Admin. & watershed management	35
Environmental experts	2	Environmental engineering	35
<b>INDUSTRIAL POLLUTION CONTROL</b>			
Coordinator	1	Water resource management	35
Environmental specialist	1	Admin./environmental planning	35
Environmental economist	1	Industrial pollution	35
Industrial engineer	1	Industrial pollution control	35
Financial specialist	1	Finance and bank credit	35
Provinces:			
Financial specialists	2	Finance and bank credit	35
Institutional specialists	2	Institutional management	35
Industrial pollution specialists	2	Industrial pollution control	35

1/ The complete terms of reference for individual consultants are available from PRA/ENV as a technical document.

GENERAL PROCUREMENT NOTICE  
DRAFT VERSION

ARGENTINA  
INSTITUTIONAL STRENGTHENING PROGRAM FOR ENVIRONMENTAL MANAGEMENT  
(AR-0065)

GENERAL PROCUREMENT NOTICE

The Secretaría de Recursos Naturales y Ambiente Humano (SRNAH) attached to the Office of the President of Argentina has applied for a loan from the Inter-American Development Bank in the amount of US\$30 million equivalent to help finance an institutional strengthening program for environmental management. It plans to use a portion of the loan proceeds, together with local funding, for the procurement of computer equipment (PCs). Procurements will be made in accordance with IDB procurement procedures and the provisions of the prospective loan contract.

The purpose of the program is to help promote environmental management in Argentina through technical assistance and legal and institutional strengthening activities for national, provincial and local environmental systems. The specific program objectives are to: (i) lay the groundwork for a national environmental system; (ii) help frame national environmental policy; (iii) implement established policy and strategies through the drafting of new legislation, the amendment of existing legislation and the development of related regulations and standards; (iv) strengthen the technical and operating capacity of the SRNAH and of other national and provincial environmental agencies; (v) launch pilot projects for the prevention and control of environmental degradation; and (vi) procure consulting services for the preparation of a limited number of environmental studies.

Specific procurement notices for prequalification and the submission of bids for goods and services will be published on a yearly basis.

Specific procurement notices will be published in at least one leading Argentine newspaper and will be advertised internationally in IDB member countries in accordance with Bank policy as outlined in the appropriate section of this publication pertaining to the IDB.

Address inquiries for further information to the Secretaría de Recursos Naturales y Ambiente Humano, Unidad de Coordinación del Programa BID, San Martín 459, 4to. piso, C.P. 1004, Buenos Aires, Argentina (telephone: 325-7677 or 322-8519; fax: 394-6643 or 325-6048).

PROPOSED RESOLUTION <sup>1/</sup>

ARGENTINA. LOAN \_\_\_\_/OC-AR TO THE NACION ARGENTINA  
Program of Institutional Strengthening  
for Environmental Management

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 Nación Argentina, as Borrower, for the purpose of granting it financing to cooperate in the execution of a program of institutional strengthening for environmental management, hereinafter referred to as the "Program". This financing shall be subject substantially to the following conditions:

1. Amount and Currencies: Up to US\$5,000,000, or its equivalent in other currencies, except that of Argentina, which are part of the ordinary capital resources of the Bank, to pay for goods and services acquired through international competition in the member countries of the Bank and for such other purposes as may be specified in the loan contract. Payments of amortization and interest shall be made in the currency or currencies specified by the Bank, in a quantity equivalent to the corresponding amount owed, calculated in units of account in terms of dollars of the United States of America, in accordance with provisions to be included in the loan contract.
2. Source of Funds: The ordinary capital resources of the Bank.
3. Guarantee: The general responsibility of the Borrower.
4. Credit Fee: 0.75% per annum on the undisbursed portion of the financing, commencing to accrue 60 days after the date of the loan contract and payable in dollars of the United States of America on the same dates as the interest.

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<sup>1/</sup> The provisions contained in this Appendix and in Appendices II, III, and IV will be final only when the Board of Executive Directors has approved the loan proposal.

5. Amortization: The Borrower shall amortize the loan in a period of 20 years from the date of the loan contract, by means of semiannual, consecutive and, insofar as possible, equal installments. The first installment shall be paid on the first interest payment date, six months after the date scheduled for the last disbursement of the financing.
6. Interest: The Borrower shall pay interest semiannually on the daily outstanding balances of the loan. The first payment shall be made six months after the date of the loan contract. The Bank shall determine the rates of interest to be applied during the life of the loan, in accordance with the lending-rate policy of the Bank.
7. Disbursement: The term for disbursement of the financing shall expire five years after the effective date of the loan contract.
8. Special Conditions:
  - (a) The Program shall be executed and the resources of the loan used in their entirety by the Borrower through the Secretaría de Recursos Naturales y Ambiente Humano (hereinafter referred to as "SRNAH" or the "Executing Agency"). SRNAH shall coordinate, thorough execution agreements entered into to that effect, with the Province of Buenos Aires, through the Coordinating Unit for the Project of Institutional Strengthening for Environmental Management; with the Province of Córdoba, through the Ministerio de Salud y Desarrollo Social; with the Province of Mendoza, through the Ministerio de Medio Ambiente, Urbanismo y Vivienda; and with the Province of Misiones, through the Ministerio de Ecología y Recursos Naturales, the execution of the following budgetary items under Subprogram B: (i) staff for the province's core group; (ii) specialized support services; (iii) direct cost; (iv) contracting out within the Industrial Pollution Control component.
  - (b) The resources of the loan, together with those of loan \_\_\_/SF-AR, shall be used to participate in the execution of a program, the total cost of which is estimated at the equivalent of US\$38,600,000. Consequently, the loan contracts shall contain the appropriate provisions to ensure that such additional resources as may be necessary, in addition to the two loans, for the complete execution of the Program shall be duly provided, in an amount estimated at the equivalent of US\$8,600,000, in accordance with a schedule of investments satisfactory to the Bank.

- (c) Prior to the first disbursement of the financing, the Borrower shall present to the satisfaction of the Bank:
  - (i) The Program Execution Plan outlining the respective stages and schedule, in accordance with the provisions in Appendix IV, Section VI, paragraph 6.2.
  - (ii) Evidence that the Program's Coordinating Unit has been set up and it has sufficient authority and adequate staff to carry out its duties.
  - (iii) A model for the adhesion agreements to be entered into by the Executing Agency with the provinces participating in the Program's activities. Said model agreement shall be prepared in accordance with a model previously agreed upon with the Bank.
- (d) From the resources of the first disbursement under the financing, the Bank shall retain up to the equivalent of US\$250,000 to amortize loan 747/OC-AR, which amount shall be credited to line of credit 003/PPF-AR.
- (e) In the acquisition of machinery, equipment, and other goods for the Program, and in the awarding of construction contracts, the system of public bidding shall be used in each case in which the value of such acquisitions exceeds the equivalent of US\$250,000 or the value of such contracts for the execution of works exceeds the equivalent of US\$1,000,000. The bidding shall be subject to the procedures to be appended as an annex to the loan contract.
- (f) The Bank shall establish such inspection procedures as it deems necessary to assure the satisfactory execution of the Program, and the Borrower shall extend all cooperation which is required for the most effective accomplishment of this purpose. From the amount of the financing, the sum of US\$50,000 shall be allocated for credit to the income accounts of the Bank to meet expenses of general inspection and supervision.

PROPOSED RESOLUTION <sup>1/</sup>

ARGENTINA. LOAN \_\_\_\_/SF-AR TO THE NACION ARGENTINA  
Program of Institutional Strengthening  
for Environmental Management

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 Nación Argentina, as Borrower, for the purpose of granting it financing to cooperate in the execution of a program of institutional strengthening for environmental management, hereinafter referred to as the "Program". This financing shall be subject substantially to the following conditions:

1. Amount and Currencies: Up to the equivalent of US\$25,000,000 in Argentine pesos, which are part of the Bank's Fund for Special Operations, to cover local expenses and for such other purposes as may be specified in the loan contract. Payments of amortization and interest shall be made in pesos.
2. Source of Funds: The Fund for Special Operations.
3. Guarantee: The general responsibility of the Borrower.
4. Amortization: The Borrower shall amortize the loan in a period of 25 years from the date of the loan contract, by means of semiannual, consecutive and, insofar as possible, equal installments. The first installment shall be paid on the first interest payment date, six months after the date scheduled for the last disbursement of the financing.
5. Interest: 4% per annum, payable semiannually on the daily outstanding balances of the loan. The first payment shall be made six months after the date of the loan contract.

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<sup>1/</sup> The provisions contained in this Appendix and in Appendices I, III, and IV will be final only when the Board of Executive Directors has approved the loan proposal.



6. Disbursement: The term for disbursement of the financing shall expire five years after the effective date of the loan contract.
7. Special Conditions:
  - (a) The Program shall be executed and the resources of the loan used in their entirety by the Borrower through the Secretaría de Recursos Naturales y Ambiente Humano (hereinafter referred to as "SRNAH" or the "Executing Agency"). SRNAH shall coordinate, thorough execution agreements entered into to that effect, with the Province of Buenos Aires, through the Coordinating Unit for the Project of Institutional Strengthening for Environmental Management; with the Province of Córdoba, through the Ministerio de Salud y Desarrollo Social; with the Province of Mendoza, through the Ministerio de Medio Ambiente, Urbanismo y Vivienda; and with the Province of Misiones, through the Ministerio de Ecología y Recursos Naturales, the execution of the following budgetary items under Subprogram B: (i) staff for the province's core group; (ii) specialized support services; (iii) direct cost; (iv) contracting out within the Industrial Pollution Control component.
  - (b) The resources of the loan, together with those of loan \_\_\_/OC-AR, shall be used to participate in the execution of a program, the total cost of which is estimated at the equivalent of US\$38,600,000. Consequently, the loan contracts shall contain appropriate provisions to ensure that such additional resources as may be necessary, in addition to the two loans, for the complete execution of the Program shall be duly provided, in an amount estimated at the equivalent of US\$8,600,000, in accordance with a schedule of investments satisfactory to the Bank.
  - (c) Prior to the first disbursement of the financing, the Borrower shall present to the satisfaction of the Bank:
    - (i) The Program Execution Plan outlining the respective stages and schedule, in accordance with the provisions in Appendix IV, Section VI, paragraph 6.2.
    - (ii) Evidence that a Program Coordination Unit has been set up with the necessary powers and a schedule for the incorporation of appropriate staff to perform the respective duties.

- (iii) A model contract to be used by the Executing Agency for the adhesion agreements it will sign with the participating provinces, which shall be drafted in accordance with a model previously agreed upon with the Bank.
- (d) Upon acceptance by the Bank, up to the equivalent of US\$200,000 of the resources of the financing may be utilized to cover expenses incurred in the Program before the effective date of this resolution but after January 1, 1993, provided that requirements substantially similar to those of this resolution and the loan contract have been fulfilled.
- (e) In the acquisition of machinery, equipment, and other goods for the Program, and in the awarding of construction contracts, the system of public bidding shall be followed in each case in which the value of such acquisitions exceeds the equivalent of US\$250,000 or the value of such contracts for the execution of works exceeds the equivalent of US\$1,000,000. The bidding shall be subject to the procedures to be appended as an annex to the loan contract.
- (f) The Bank shall establish such inspection procedures as it deems necessary to assure the satisfactory execution of the Program, and the Borrower shall extend all cooperation which is required for the most effective accomplishment of this purpose. From the amount of the financing, the sum of US\$250,000 shall be allocated for credit to the income accounts of the Bank to meet expenses of general inspection and supervision.

RECOMMENDATIONS:

- A. It is recommended that the following conditions, to be met to the Bank's satisfaction, be included in the loan contracts, in addition to those set forth in the proposed resolutions:
1. Unless the parties agree otherwise, prior to issuing each call for public bids, or if there is no need for public bids, prior to the acquisition of the goods or the initiation of the works, the Borrower, through the Executing Agency, shall submit to the Bank: (a) the general plans, specifications, budgets, and other documents needed for the acquisition or construction and, where applicable, the specific requirements and other documents needed for the call for bids; and (b) in the case of works, evidence that it has the legal possession, easements, or other pertinent rights to the lands required for their construction.
  2. The Bank may recognize as part of the local counterpart resources of the Program, expenditures up to the equivalent of US\$300,000 incurred prior to the date of Resolutions DE-\_\_\_\_\_ and DE-\_\_\_\_\_ but after January 1, 1993, provided that requirements substantially similar to those set forth in the resolutions and in the loan contracts have been fulfilled.
  3. The Borrower shall submit to the Bank, through the Executing Agency, during the execution of the Program and within 60 days after the end of each calendar year, evidence that it has assigned the full-time staff needed for the institutional strengthening of the SRNAH in accordance with the requirements, schedules and duties previously agreed on with the Bank.
  4. The Borrower, through the Executing Agency, shall submit to the Bank, within six months from the effective date of the loan contract, evidence that:
    - (a) It has set up the Program Evaluation and Follow-up Committee, which will meet during the Program execution period within the 30 days following the end of each calendar semester for the purpose of verifying the application of the Program Execution Plan; and
    - (b) It has set up the Program Steering Committee and appointed the Program's National Director.
  5. Within a year from the effective date of the loan contract, the Borrower, through the Executing Agency, shall submit to the Bank a proposal for the methodology, criteria, and parameters

for evaluating the progress referred to in Recommendation A.7 and the final evaluation of the fulfillment of the Program's goals.

6. Within eighteen months after the effective date of the loan contract, the Borrower, through the Executing Agency, shall submit to the Bank evidence that at least two of the execution agreements referred to in paragraphs 8(a) and 7(a) of Appendixes I and II, respectively, have been entered into.
  7. At its last meeting before the beginning of the third year of the loan contract, the Evaluation and Follow-up Committee will assess the program's progress at that point and prepare a report on its conclusions, to be submitted to the Bank within the 30 days following said meeting. Should these conclusions show that the Program Execution Plan is not being implemented in the manner previously agreed, the Borrower and the Bank shall agree on the measures needed to remedy any such deficiencies in implementation.
  8. The Borrower, through the Executing Agency, shall submit to the Bank, during the execution of the Program and at least 60 days after the end of each calendar year, evidence that it has carried out the actions and fulfilled the objectives set forth in the Program Execution Plan for said calendar year, as well as updated the Plan for the coming years. Should the evidence presented by the Borrower show that the Program Execution Plan is not being implemented in the manner previously agreed, the Borrower and the Bank shall agree on the measures needed to remedy any such deficiencies in implementation.
  9. The Borrower shall prove to the Bank, through the Executing Agency, within three years from the date of the loan contracts, that it has implemented the measures for institutional strengthening of environmental management, as set forth in the Plan described in Appendixes I and II, paragraphs 8(c)i and 7(c)i, respectively.
  10. The financial statements of the Program, during its execution, shall be presented annually to the Bank audited by an independent public accounting firm acceptable to the Bank through the end of the second year following the date of the last disbursement of the financing.
- B. The loan contracts shall contain an annex substantially similar to Appendix IV ("The Program") of this document.

THE PROGRAM

Annex A to the Loan Contract

I. Objective

- 1.1 The objective of the Program of Institutional Strengthening for Environmental Management is to provide support for environmental management in Argentina through technical assistance and strengthening of the legal and institutional framework of the national, provincial, and - indirectly - municipal systems for environmental management.

II. Description

- 2.1 The program would be carried out through the execution of two subprograms.

1. Subprogram A. Support for the establishment of a national environmental management system

- 2.2 This subprogram shall lay the foundations for setting up a national environmental management system for the purpose of facilitating linkage among environmental affairs agencies both within the public sector (at the national, provincial, and municipal levels) and between the public and private sectors (companies, research institutes, NGOs), as well as providing guidance for the definition of national and provincial environmental policy.

- 2.3 Subprogram A has the following components:

- (a) Environmental policy, for drawing up a proposal for a national policy that would also be pursued by the provinces under the Federal Environmental Affairs Agreement.
- (b) Environmental legislation, for collection, sistematization and adaptation of rules and preparation of an environmental digest for Argentina.
- (c) Institutional strengthening of the SRNAH and support for the strengthening of provincial and municipal agencies. Instruction and training for technical staff at government agencies and NGOs.
- (d) Environmental education, for implementing a combined formal/nonformal education program and setting up a network of centers to provide ongoing educational activities on environmental issues.

(e) National environmental information system, including its preparation and startup.

2. Subprogram B. Pilot programs for systems for controlling environmental degradation

2.4 This subprogram covers the design, financing, and startup of institutional and financial mechanisms in the following three components:

(a) National environmental control system, for defining the structure and operation of the system at the national level and for the provinces of Buenos Aires, Mendoza, Córdoba, and Misiones, who will participate as subexecuting agencies of this component.

(b) Institutional structures for integrated watershed management in the form of three technical units to be set up - one at the national level, which would be located in the SRNAH, and the other two in the provinces of Buenos Aires and Córdoba - as well as consultations with authorities at the different levels involved and preparation of a proposal for the expansion of the system to other provinces.

(c) Pilot program to control industrial pollution, which would include the establishment and operation of the provincial units that will coordinate execution of this component, specialized technical assistance, and technical and financial feasibility studies for individual projects.

3. Subprogram C. Preparation of environmental management projects

2.5 Under Subprogram C, financing will be provided for the preparation of environmental projects through the hiring of consultants to conduct technical and financial feasibility studies on other environmental management projects.

III. Cost of the Program and Financing Plan

3.1 The estimated cost of the Program is the equivalent of US\$38,600,000, in accordance with the following investment categories and sources of financing:

COST AND FINANCING (IN US\$000)					
<u>INVESTMENT CATEGORY</u>	<u>BANK</u>		<u>LOCAL</u>	<u>TOTAL</u>	<u>%</u>
	<u>OC</u>	<u>SF</u>	<u>CONTRIBUTION</u> <u>SRNAH</u>		
I. ADMINISTRATION	0	740	2,440	3,180	8,24%
II. SUPPORT FOR ENVIRONMENTAL MANAGEMENT	4,200	10,375	1,169	15,744	40,79%
Consulting services and training	2,636	7,695	926	11,257	
Mobilization of staff, consultants, and fellowships	0	1,840	243	2,083	
Machinery and equipment	1,564	840	0	2,404	
III. PILOT PROGRAMS	0	9,100	626	9,726	25,20%
Environmental protection	0	2,930	255	3,185	
Watershed management	0	2,158	200	2,358	
Control of Industrial pollution	0	4,012	171	4,183	
IV. PROJECT PREPARATION	0	2,000	0	2,000	5,18%
Preparation of environmental projects	0	2,000	0	2,000	
V. ASSOCIATED COSTS	250	0	0	250	0,65%
Recovery of PPF Loan 747/OC-AR	250	0	0	250	
VI. FINANCIAL EXPENSES	50	250	3,576	3,876	10,04%
Interest	0	0	3,477	3,477	
Credit fee	0	0	99	99	
Inspection and supervision	50	250	0	300	
VII. UNALLOCATED	500	2,535	789	3,824	9,91%
TOTAL	5,000	25,000	8,600	38,600	100,00%
PERCENTAGE	12.95%	64.77%	22.28%	100,00%	

IV. Procurement

- 4.1 When goods to be procured or services to be contracted for the Program, including those related to any form of transportation or insurance, are to be financed in whole or in part with foreign

exchange from the financing, the procedures and specific requirements for the bidding or other forms of contracting shall permit the unrestricted participation of goods and services from member countries of the Bank. Consequently, no conditions that would prevent or restrict the offer of goods or the participation of contractors from such countries shall be established in such procedures or specific requirements.

V. Consulting Services

- 5.1 In the selection and contracting of consulting services financed in whole or in part with resources from the financing: (a) the procedures agreed upon with the Bank shall apply, and (b) no conditions or stipulations may be established that would restrict or prevent the participation of consultants from the Bank's member countries.
- 5.2 With respect to consulting services financed with resources of the local counterpart, the Bank reserves the right to review and approve, prior to the Borrower proceeding with the corresponding hire, the names and background of the firms or individual consultants selected, their terms of reference, and the agreed fees. This provision does not apply when resources from the suppliers' credits are used for such contracts.

VI. Program Execution

- 6.1 The agreements to be signed by the Borrower through the SRNAH, pursuant to conditions in Appendixes I and II, paragraphs 8(a) and 7(a), respectively, shall establish, in addition to the obligations inherent in the nature of this type of agreement, the following:
- (a) The commitment by each of the provinces to:
- (i) execute with due diligence and efficiency the duties assigned to it, following technical standards and fully observing the provisions of the loan contracts signed by the Borrower and the Bank for the execution of the Program;
  - (ii) set up a system to execute the component assigned to it, similar to the one planned at the SRNAH for execution of the Program, in compliance with the provisions of the respective agreements;
  - (iii) provide the respective counterpart contributions and staff;
  - (iv) establish financial control mechanisms; and



- (v) deliver the information needed to prepare the Execution Plan with respect to Subprogram B.
  - (b) The Borrower's commitment to finance, through the SRNAH, with resources from the financing the pertinent Subprogram B component.
  - (c) Prior to the first disbursement of the resources concerning the execution agreement, the Borrower shall submit to the satisfaction of the Bank, evidence that the province: (i) has enacted the execution agreement in terms similar to those contained in the model previously agreed upon with the Bank; and (ii) the unit in charge of coordinating the Program activities with respective co-executing province is operating with the adequate authority and personal to initiate its activities.
- 6.2 The Program Execution Plan, described in conditions 8(c)(i) and 7(c)(i) of Appendixes I and II, respectively, shall include at the very least of the following:
- (a) Activities, tasks, and goals planned, organized in the respective stages; as well as quantity and deadlines for the presentation of the consultant's reports;
  - (b) task assignments by subprograms including staff (consulting firm, individual consultants hired for Subprogram I and Subprogram II, and local staff), and dates of hiring and release of personnel or consultants;
  - (c) terms for preparation, analysis, and execution of the SRNAH reorganization plan;
  - (d) training plan; and
  - (e) definition of the minimum scope of the reports mentioned in subparagraph (a) above.
- 6.3 The Program Evaluation and Follow-up Committee referred to in Recommendation A.4(a) of Appendix III, shall be composed as follows:
- (a) a representative from SRNAH, who shall preside it;
  - (b) a representative from the Ministerio de Economía y Obras y Servicios Públicos.
  - (c) a delegate from the National Council for the Environment;
  - (d) a representative from each of the four participating provinces;
  - (e) the Program's National Director;

- (f) the director of the Program Coordinating Unit; and
- (g) a representative from non-governmental organizations.