

# EL SALVADOR ENVIRONMENTAL PROTECTION PROGRAM

(ES-0024)

## EXECUTIVE SUMMARY

**BORROWER AND GUARANTOR:** Government of El Salvador

**EXECUTING AGENCY:** Secretaria Ejecutiva de Medio Ambiente [Bureau of Environmental Protection] (SEMA) and Dirección General de Recursos Naturales Renovables [Department of Renewable Natural Resources] (DGRNR)

**AMOUNT AND SOURCE:** Loan

IDB:	US\$30.0 million (OC/IFF)
Local counterpart funding:	US\$ 3.9 million
Total:	US\$33.9 million

Nonreimbursable technical-cooperation funding

IDB:	US\$1.6 million (FSO)
Local counterpart funding:	US\$ 390,000
Total:	US\$1.99 million

**FINANCIAL TERMS AND CONDITIONS:**

Amortization period:	25 years
Disbursement period:	5 years
Interest rate:	variable
Inspection and supervision:	1%
Credit fee:	0.75%

**OBJECTIVES:** The general objectives of the El Salvador Environmental Protection Program are to: (i) strengthen the institutional framework for environmental management; and (ii) help reduce the degradation of renewable natural resources in the upper Lempa River basin, thereby improving the socioeconomic situation of the rural low-income population. The specific objectives for support of environmental management are to: (i) strengthen the institutions belonging to the National Environmental Management System (SINAMA); (ii) help define and implement environmental policy; and (iii) contribute to developing a legal and regulatory framework for environmental affairs. The specific objectives of the upper Lempa River basin investments are to: (i) contribute to soil conservation in areas producing staple cereals; (ii) help protect three natural areas; and (iii) help develop the capacity to monitor pollution in the main bodies of water.

**DESCRIPTION:**

For the purposes of the financing, the program has been divided into two main components: (i) environmental management support, which will be funded through nonreimbursable technical cooperation in association with the loan to be executed by SEMA; and (ii) upper Lempa River basin investment, under a loan to be executed by DGRNR with support from the Project Coordinating Office (OCP) in the Ministry of Agriculture (MAG).

The technical cooperation is designed to complete the implementation and operation of the country's environmental management system initiated under technical cooperation ATN/SF-4336-ES, through activities in four areas: (a) institutional strengthening, (b) consolidation of the systems for environmental information and environmental-impact assessment, (c) training, and (d) environmental legislation.

The loan will finance investments in the upper Lempa River basin upstream from the Cerrón Grande reservoir. This area has El Salvador's highest water potential: it accounts for one fourth the country's overall land surface and 40% of its population. The component consists of three subcomponents: (a) soil conservation and agroforestry, designed to halt the progressive deterioration of land surfaces used by low-income farmers to grow staple cereal crops on hillsides in 13 zones covering a total area of close to 34,000 ha; (b) protected areas, aimed at consolidating the Montecristo National Park, the San Diego La Barra Reserve and the San Andrés-Joya de Cerén Regional Park; and (c) monitoring of water resources, through rehabilitation of the system for measuring liquid and solid inflow into the Cerrón Grande reservoir and a water pollution monitoring program.

**SPECIAL  
CONTRACTUAL  
CONDITIONS:**

**A. Conditions precedent to the first disbursement of the technical cooperation**

Prior to the first disbursement, the beneficiary shall present, to the Bank's satisfaction:

- a. Evidence that execution of technical-cooperation project ATN/SF-4336-ES has begun (paragraph 3.26 of the technical-cooperation plan of operations);
- b. copy of the contract negotiated between the executing agency and the consulting firm for technical assistance and support for the execution of the technical cooperation, in accordance with the terms of reference agreed

upon with the Bank (paragraph 3.28 of the technical-cooperation plan of operations);

- c. evidence that the technical-cooperation executing unit (UECT) has been created with SEMA, along with the facilities and logistical support required for the performance of its duties; with an explicit indication of actual functional coordination between it and the staff and consultations working on technical-cooperation project ATN/SF-4336-ES and the staff and consultants working on the Proyecto Promesa project financed by AID (paragraph 3.26 of the technical-cooperation plan of operations);
- d. formalization of appropriate instruments to transfer to SEMA the funds required for the technical cooperation and the local counterpart contribution, and all the rights and responsibilities incumbent upon it as executing agency of the technical cooperation, pursuant to the provisions of the agreement (paragraph 3.31 of the technical-cooperation plan of operations); and
- e. the preliminary training program, including indicative selection criteria for participants in each of the courses, apprenticeships, in-service training sessions, etc. (paragraph 3.22 of the technical-cooperation plan of operations).

B. Other special conditions for the technical cooperation

- a. Within six months after the effective date of the agreement, the beneficiary shall present evidence that it has established, placed in operation and staffed with core senior staff the following sector executing agencies: (i) the environmental unit in the Ministry of Agriculture; (ii) the environmental unit in the Lempa River Hydroelectric Commission (CEL); (iii) the Environmental Sanitation Department in the Ministry of Health; and (iv) the environmental unit in the Ministry of Public Works (paragraph 3.29 of the technical-cooperation plan of operations);
- b. within six months after the effective date of the agreement, the beneficiary shall present evidence that the appropriate interinstitutional agreements have been signed with the

agencies specified in the foregoing section, and with the environmental service providers identified below: (i) National Geographical Institute (IGN); (ii) Ecological Unit, National Treasury; (iii) Environmental Laboratory, Ministry of Agriculture; and (iv) Ministry of Health Laboratory; and that they have been strengthened with the minimum staff agreed upon with the Bank (paragraph 3.29 of the technical-cooperation plan of operations);

- c. within 12 months after the effective date of the agreement, a tripartite meeting shall be held with the participation of the executing agency, the consulting firm, and the Bank, to evaluate the results obtained and program activities for the following year (paragraph 7.1 of the technical-cooperation plan of operations);
- d. the executing agency undertakes to ensure that, in the event that any targets are not fulfilled or activities not carried out, the causes are determined and the necessary corrective measures are recommended, including additional tripartite meetings and implementation of the recommendations (paragraph 7.1 of the technical-cooperation plan of operations); and
- e. the threshold amount above which procurement is to be by international public bidding is US\$250,000 for goods and US\$200,000 for services. No works are called for (paragraph 3.32 of the technical-cooperation plan of operations).

C. Conditions precedent to the first disbursement of the loan

The first disbursement of the financing shall be subject to the fulfillment to the Bank's satisfaction of the requirements set forth below, in addition to the conditions precedent stipulated in the General Conditions:

- a. Creation of the watershed executing unit (UEC) within DGRNR with support from OCP and with the powers, initial staffing and timetable for additional staffing agreed upon with the Bank (paragraph 4.5);

- b. approval and entry into force of the Operating Regulations agreed upon with the Bank, including provisions and agreements with the El Salvador Environmental Protection Fund (FONAES) as needed to manage incentive resources (paragraphs 3.7 and 4.19); and
- c. presentation to the Bank of the timetable for hiring of consulting services and final terms of reference for consulting services for the first year.

D. Other special conditions for the loan

- a. Within 12 months after the effective date of the loan contract, the borrower will submit to the Bank evidence that it has entered into an agreement with the executing agency and the Lempa River Hydroelectric Commission with regard to the monitoring of water resources in the upper Lempa River basin and an agreement with the Ministry of Health Laboratory covering the appropriate activities (see paragraph 3.4);
- b. during program execution, a tripartite meeting will be held annually in which the executing agency, the subexecuting agency, and the Bank will evaluate the results obtained under the program during the previous year and plan program activities for the following year. Should any goals not have been fulfilled or activities not have been carried out, the reasons therefor will be assessed and the necessary corrective measures recommended, which the executing agency will agree to implement during the following year (see paragraph 3.24);
- c. the threshold amounts above which procurement is to be by international public bidding is US\$250,000 for goods, US\$200,000 for services, and US\$1 million for works (paragraph 3.9); and
- d. expenses for the construction of protective works in the three protected areas of the program may be recognized for Bank financing, up to the amount of US\$300,000 equivalent (paragraph 3.27).

**ENVIRONMENTAL  
CLASSIFICATION:**

The Environmental Management Committee, at its meeting of March 2, 1993 (CMA 8/93), classified this as a Category I operation.

**BENEFITS:**

The benefit directly attributable to the technical cooperation in support of the environmental management will be reflected in the preservation of environmental quality, promoting the social efficiency of the investments in general. The principal direct benefits of the investments will be a slowing of erosion in the upper Lempa River basin and an increase in the incomes of approximately 19,496 families of small farmers with incomes below the poverty line established by the Bank for El Salvador. The protected areas and water resource monitoring investments have the potential to generate benefits for society at large. In addition, the investment component of the El Salvador Environmental Protection Program, the design of which includes gender issues, calls for activities to promote the participation of rural women in agricultural production and agroforestry.

**RISKS:**

The main risks concern: (i) the weakness of the executing agencies, for whose strengthening the El Salvador Environmental Protection Program assigns priority; and (ii) the possibility that conservation-oriented practices may not be adopted under the soil conservation and agroforestry subcomponent, especially by tenant farmers and may be abandoned once the program is completed. This risk is lessened by the low proportion of tenants in the program area (approximately 23%), the great interest in conservation-oriented practices expressed in the surveys, even by the tenants, the focus of the program on farmers who own their land and tenants with firm agreements with their landlords, and the promotion, training, extension services, and incentive system under the program. In addition, the producers are expected to continue the practices once they see the rate of return of the investments, given the inclusion of production diversification plans known to them, which are of high value and for which markets already exist.

**THE BANK'S  
COUNTRY AND  
SECTOR STRATEGY:**

The strategy of the Bank in El Salvador includes providing support for the government within the framework of its economic and financial reforms launched in 1990, and to expand modernization of the public sector. The strategy for environmental protection is to provide the country with the instruments necessary to incorporate environmental concerns into its efforts to consolidate the peace process, reduce poverty, and achieve sustainable development.

## I. FRAME OF REFERENCE

### A. Introduction

- 1.1 The Government of El Salvador has made significant progress toward including environment-related measures in its development plans. Efforts are focused on mitigating the impact of existing problems and restoring sound environmental conditions as soon as possible within a context of sustainable development.
- 1.2 With the signing and implementation of the peace accords, El Salvador now faces the daunting challenge of how to alleviate poverty and spur economic growth while ensuring sustainable development for future generations, without depleting the natural-resource base underpinning that process. With this in mind, action is being taken with a view to: (i) creating conditions for gradually wiping out extreme poverty; (ii) attaining sustainable economic growth; (iii) cutting back on government intervention; and (iv) promoting rational use of the country's resources. Through such plans as *Mujer y Medio Ambiente* [Women and the Environment] and the establishment of rural community centers under the National Department of Family Affairs, the Government of El Salvador has recognized women's pivotal role in the social and economic reconstruction of the country, especially as it concerns natural-resource conservation and management.

### B. Environmental conditions in El Salvador

- 1.3 Despite the advances made, El Salvador's environment sector continues to face several major constraints: lack of appropriate policies; unsuitable legal framework; weak institutional structure; incomplete data, education, and understanding of the importance of environmental conservation and renewable natural resources; limited technology transfer; scarce funds; and lack of procedures and structures geared toward promoting conservation.
- 1.4 Recent estimates indicate that some 75% of the country's land mass suffers from serious erosion and soil loss; 98% of the original woodlands have been cut down or replaced; and between 70% and 90% of the country's rivers are polluted with sewage, farm chemicals, industrial waste, and sediment.
- 1.5 These high erosion levels are mainly the result of (i) local farming practices, particularly the practice of growing annual cereal crops on small farms situated on steep slopes, without adopting any preventive measures, and (ii) deforestation, bearing in mind that 50% of the country's net secondary-energy consumption is wood-based and 89% of rural homes use wood for cooking.
- 1.6 The population group hardest hit by the worsening situation of the country's natural resources are the small farmers. This group has

fewer real possibilities for adopting conservation-oriented farming practices and suffers the most from the lack of reforestation activities, since it is the main consumer of wood.

C. Institutional framework

- 1.7 A major step towards securing a place for environmental protection in national development plans was taken in January 1991 when the Government of El Salvador set up the National Environmental Protection Council (CONAMA) and, within the council, the Bureau of Environmental Protection (SEMA), under Executive Order 73 of January 14, 1991. Pursuant to Executive Decree 19 of July 15, 1994, SEMA was assigned to the Ministry of Coordination of Economic and Social Development (MICDES). Legislative Decree 23 of June 16, 1994, was issued to approve the act creating the El Salvador Environmental Protection Fund (FONAES), channelling investment funds to environmental projects.
- 1.8 This notwithstanding, the legal and institutional structure for handling matters pertaining to the environment and natural resources continues to be plagued by a series of problems: (i) there is no compendium of legislation, which leads to problems in the use and management of natural resources; (ii) regulations have yet to be enacted for implementing much of the legislation passed; (iii) the enforceability of existing legislation is limited; and (iv) there is no institutional centralization, which gives rise to conflicts of authority and jurisdiction in matters related to environmental protection and the use and management of natural resources.
- 1.9 Similarly, the basic instruments used to formulate and implement environmental policy lack the following key components: (i) a nationwide system for environmental information; (ii) quality standards and monitoring procedures; and (iii) a nationwide system for assessing environmental impact, which would be used to channel new investments and identify measures to mitigate the impact of existing investments.

D. The government's strategy for curbing environmental deterioration

- 1.10 On January 8, 1992, CONAMA approved the Environmental Agenda and Action Plan, designed essentially to set priorities, coordinate efforts, and focus action for reversing the acute deterioration of the country's environment and natural resources.
- 1.11 In September 1994, SEMA approved the National Strategy for the Environment, which was built around the guidelines set forth in the Environmental Agenda and Action Plan presented by the country at the Earth Summit held in Rio de Janeiro in 1992. The National Assembly is also currently considering the Environmental Protection Act, which sets out the roles, functions, and structure of the National Environmental Management System (SINAMA). These efforts



have received support from the Bank, from USAID's *Proyecto Promesa* [Project Promise], and from a World Bank technical assistance loan and structural adjustment loan (stage II).

E. The Bank's strategy

- 1.12 In November 1992, the Bank met with the Government of El Salvador to discuss its environmental strategy. The strategy has two components: (i) support for environmental management and institutional strengthening at SEMA and other government-agency environmental protection units; and (ii) specific initial investments for watershed management, coastal-resource management, and cleanup of critical areas.
- 1.13 In keeping with that strategy and in addition to the El Salvador Environmental Protection Program (ES-0024) described here, an additional operation is being considered for 1996 and 1997: Cleanup of Critical Areas (ES-0074). Preparation of the project is to begin in 1995.

F. Bank operations in the sector

- 1.14 The most recent Bank operation in the environment sector was nonreimbursable technical-cooperation project ATN/SF-4336-ES, which is currently at the stage of complying with the conditions precedent to the first disbursement. This operation will design and introduce an environmental information system and a system for assessing environmental impact; it will also strengthen SEMA and the environmental protection units of the principal agencies in charge of solid waste management and water quality.
- 1.15 To date, the Bank has financed six small environmental projects, one of which was nonreimbursable technical-cooperation operation ATN/SF-4406-ES (PPF), approved in December 1993. That project, will upgrade the administrative and financial systems of the principal agencies involved in execution of the El Salvador Environmental Protection Program.

G. Strategies of other international agencies

- 1.16 The main environmental-protection actions carried out in El Salvador by other lending agencies can be summarized as follows:
  - a. projects for institutional reorganization of the agriculture sector and a sector adjustment loan with the World Bank (SAL II), which also funded a study (with participation by the United Nations Food and Agriculture Organization - FAO) on natural-resource management in El Salvador;
  - b. AID's *Proyecto Promesa*, which started up in mid August 1994, and includes an environmental-education component;

- c. a UNDP/FAO project to provide forest-resource support for low-income rural communities, carried out between 1980 and 1986 in the department of Chalatenango and between 1987 and 1992 in the departments of Cabañas, Usulután, and Morazán, and which contributed valuable experience for conservation-oriented farming models; and the FAO/Netherlands forestry project launched in the eastern region; and
  - d. a development project of the International Fund for Agricultural Development (IFAD) to provide support for towns that were affected by the conflict in the department of Chalatenango; the project will address soil-conservation practices at the individual farm level and greater involvement of rural women.
- 1.17 These objectives, experiences, and activities were all borne in mind during the formulation of the El Salvador Environmental Protection Program (ES-0024) described herein and the associated technical cooperation approved previously (ATN/SF-4336-ES).

## II. THE PROGRAM

### A. Program structure and objectives

- 2.1 In light of the results of the analysis, the El Salvador Environmental Protection Program has been broken down into two main components for financing purposes: (i) environmental management support, which will be funded through a nonreimbursable technical-cooperation operation in association with the loan under the responsibility of SEMA; and (ii) investment in the upper Lempa River basin, comprising soil conservation, water resource and quality monitoring, and protection of natural areas, to be financed under the loan, under the responsibility of DGRNR in MAG.
- 2.2 The program's principal objectives are: (i) to upgrade environmental management in El Salvador by strengthening the sector's regulatory framework and the ability of its institutional structure to take action, and (ii) to curb the deterioration of renewable natural resources in the upper basin of the Lempa River and thereby improve socioeconomic conditions for the area's low-income rural population.
- 2.3 In terms of environmental management support, the program has the following specific objectives: (i) to strengthen the principal institutions within SINAMA, including complementary support for the environmental information system and the system for environmental impact assessment covered under technical-cooperation operation ATN/SF-4336-ES; (ii) to help define and implement environmental policy; and (iii) to contribute to the development of a legal and regulatory framework for environmental affairs.
- 2.4 With regard to natural-resource management and conservation in the upper Lempa River basin, the specific objectives are: (i) to promote soil conservation by controlling sheet erosion with a view to maintaining or enhancing productivity levels and the plant cover through agroforestry and biomechanical techniques; (ii) to help protect the basin's biological diversity by devising management plans for protected natural areas; and (iii) to enhance pollution-monitoring capacity of the area's main bodies of water.

### B. Program components

#### 1. Environmental management support

- 2.5 The nonreimbursable technical-cooperation funding to be granted in association with the loan will be used to complete the design and startup of SINAMA initiated under technical-cooperation operation ATN/SF-4336-ES will cover four areas: institutional strengthening, consolidation of the systems for environmental information and environmental impact assessment, training, and environmental

legislation. The amount of the IDB contribution to the technical cooperation would be US\$1.6 million for an execution period of two years. The government would provide US\$390,000 equivalent in counterpart funding.

- 2.6 The technical cooperation would have the following specific objectives: (i) to provide technical assistance for devising institutional procedures, structures, strategies, and policies for environment-related issues; (ii) to complete the systems for environmental information and environmental impact assessment, which will be run by the offices of the SINAMA; (iii) to conduct a training program on technical, management, legal, and administrative issues associated with natural-resource management and environmental protection; and (iv) to offer advice on the preparation of draft legislation, regulations, standards, and procedures for environmental affairs.
- 2.7 Through this technical cooperation, the program will provide the basic tools needed to finish putting in place the environmental management system. These tools are an essential prerequisite for launching an environmental quality-control program and for setting a standard for sustainable development, as set forth in the country's environmental strategy. The plan of operations for the technical cooperation is attached as Annex II-1.

## 2. Upper Lempa River basin investment

- 2.8 This component would be funded by the loan. The area is located upstream from the Cerrón Grande dam, covering a total of 5,400 square kilometers. This site was chosen because the upper Lempa basin contains the bulk of El Salvador's water-resource potential: it covers one fourth the country's overall land mass and is home to 40% of the population. The principal secondary watersheds found in the area are Suquiapa, Sucio, Acelhuate, Guajoyo, Güija, Tahuilapa, Metayate, Mojaflares, Nanuapa, Torola, Quezalapa, and Grande de Chalatenango. A schematic outline of the component can be found in Table I (included with the maps). The following paragraphs describe the subcomponents into which this component is divided.

### a. Soil conservation and agroforestry

- 2.9 This subcomponent is designed to curb the progressive deterioration of soil on hillsides that still hold some potential for production where low-income farmers grow staple cereal crops. Farmers will be encouraged to adopt conservation-oriented practices over a surface of some 34,000 hectares.
- 2.10 The erosion control methods to be adopted will include biomechanical techniques such as planting hedgerows and windbreaks, digging drainage ditches, terracing, and building small impounding dams in

order to prevent gullyng. The farmers themselves will be involved in carrying out these activities.

- 2.11 Four strategies will be used to implement this subcomponent: (i) the program will be promoted and the beneficiaries organized; (ii) a training program will be conducted; (iii) extension services and technical assistance will be provided using extension workers and pilot-trial farmers; and (iv) an incentive system will be set up that makes farm inputs available and pays for labor to carry out the conservation activities. The entire target population would benefit from the technical assistance, promotion, organization, and training activities. The incentives, however, would be provided in accordance with the eligibility criteria specified in the Operating Regulations (Annex III-3).
- 2.12 The subcomponent's service area presents the following main socio-economic features: (i) the target population is comprised entirely of small farmers having incomes below the Bank's poverty line for El Salvador; (ii) most of the farmers grow staple cereal crops, with 64% of them cultivating plots with a gradient of over 15% and an average farm size of 1.5 hectares; (iii) 23% rent their property; (iv) interest in taking part in a soil conservation program is high (88%); (v) access to financing is limited; and (vi) the impact of remittances received from abroad is low (8% of the target population receives remittances).

b. Protected areas

- 2.13 This subcomponent consists of the following activities: (i) consolidating the Montecristo National Park as a protected area through activities culminating in the formulation of a management and monitoring plan for the park; (ii) support for the legal declaration of the San Diego La Barra Nature Reserve as a protected area preparation of its management plan; and (iii) conservation of the natural environment in the San Andrés-Joya de Cerén Regional Park. These areas would become an integral part of El Salvador's Protected Areas System, and the project includes the preparation of the respective management plans. The three areas, totaling 13,230 hectares, were selected on the basis of their biodiversity and the valuable genetic, natural, and cultural resources they offer.

c. Monitoring of water resources

- 2.14 This subcomponent will identify the flows of liquids and solids in the Lempa River system, with special attention to conserving water resources flowing into the Cerrón Grande reservoir (475,000 hectares) and a water-quality monitoring program (covering an area of 196,215 hectares). Besides laying the foundations for the proposal of future control measures, the subcomponent will provide input for the program to clean up critical areas currently in the Bank's pipeline.

- 2.15 With this in mind, work will focus on reconditioning the basic hydrometric system for measuring flows and sedimentation, installation and operation of additional support stations in the water-quality monitoring network, collection of raw hydroclimatic data, establishment of a geographical information system, taking bathymetric measurements in the Cerrón Grande reservoir, establishing a network of sampling points for monitoring water quality, and strengthening the Ministry of Agriculture's environmental testing laboratory and the Ministry of Health's laboratory.

C. Status of program preparation

- 2.16 The civil works entailed in the program are small-scale and simple in design. Each one was studied in the form of a prototype design and was found to be satisfactory. The subcomponents were all designed on the basis of prior experience obtained in El Salvador with this type of activity. The executing agencies have the minimum capacity and structure required in order to start up program activities and will receive strengthening in these areas under the program. The program's design is felt to be suitable and is well within acceptable risk margins. Accordingly, all the necessary support elements are present for startup of the program.

D. Program size

- 2.17 El Salvador's environmental priorities and the guidelines for the program are set out in the country's National Environmental Strategy.
- 2.18 The size of the environmental management component was determined on the basis both of these requirements and a coordinated approach to the environmental strategies of the major international financing agencies. Consideration was also given to the activities carried out under technical-cooperation operation ATN/SF-4336-ES. Both the activities to be funded by the Bank and those to be funded under the local counterpart take into account the critical institutional mass required to get the SINAMA up and running, as well as the government's efforts to streamline the public sector and real prospects in terms of institutional and budgetary considerations.
- 2.19 The soil conservation and agroforestry subcomponent was sized on the basis of the findings of the studies and surveys conducted, which indicated that the main social and environmental problems detected in the upper Lempa River basin are linked to the depletion of plant cover, erosion, use of wood as the population's main source of energy, loss of soil productivity owing to poor management, small farm size - which limits the possibilities for crop rotation - and limited access to technology due to financial constraints.
- 2.20 Given this investment's impact on the well-being of so many beneficiaries whose income is below the Bank's poverty threshold, most

of the investment will be focused on the soil conservation and agroforestry subcomponent. This subcomponent was designed with a view to alleviating the impact of soil use in staple-crop areas through soil conservation practices, crop substitution, and planting small stands of trees for agroforestry.

- 2.21 The sites and the types of actions to be covered under this subcomponent were identified on the basis of a study of the cultivated areas that present a high potential for erosion but where sustainable development is possible. Initially, a service area of 200,531 hectares was identified. Subsequent studies based on satellite images, on-site visits, and surveys resulted in the area being cut back to 33,780 hectares, divided into 13 units.
- 2.22 The size of the protected areas subcomponent was determined on the basis of the management plans and physical protection measures that were drawn up. The size of the water-resource monitoring subcomponent was determined in such a way as to produce basic information that could serve subsequently as input for the design and implementation of conservation and control measures, under investments that would rehabilitate the systems for collecting data on water resources and quality.

#### E. Beneficiaries

- 2.23 The technical cooperation will benefit the agencies that make up the Environmental Management System: SEMA, the DGRNR, the Ministry of Health, the Office of the Auditor General, the Lempa River Hydroelectric Commission (CEL), the Ministry of Public Works, the Ministry of Agriculture, and the National Institute of Geography (CIGN).
- 2.24 Benefiting directly from the investments in soil conservation and agroforestry will be 19,496 small farmers and their families, for a total target population of 107,280. Estimates indicate that all these beneficiaries live below the Bank's poverty line for El Salvador. The direct beneficiaries of the environmental-training activities will number 31,815 and include rural women, children, and young adults living in the upper Lempa River basin in the communities of San Rafael de Cedros, Tejutepeque, Nejapa, Cinquera, Tenancinango, San José Guayabal, Guazapa, Segura, Sacacoyo, San Juan Opico, Resbaladero, Texistepeque, and Nueva Concepción.
- 2.25 The investments in water-resources monitoring could potentially benefit the entire country, especially metropolitan San Salvador and its surrounding areas, which is where the country's most urbanized zones and its main industrial and agribusiness activities are located.

F. Incentives

- 2.26 A key element for promoting the adoption of conservation-oriented practices on small hillside farms is to give farmers some type of incentive that will reduce the risk and initial cost of changing over to a new technology.
- 2.27 Although the proposed models have been designed with an eye to boosting farm incomes, there will be a critical one-to-two-year period during which farmers may suffer some losses as a result of the technological changeover. For small-scale farmers who operate at a subsistence level, this risk represents a very serious obstacle.
- 2.28 The decision to offer incentives to small-scale farmers can be justified on the following grounds: (i) for startup of the conservation works, farmers need temporary incentives in the form of access to plants, inputs, technical assistance, and remuneration for carrying out biomechanical works, if called for; and (ii) from a social standpoint, incentives are justified since the farmers' changeover to conservation-oriented practices would produce off-farm benefits for the farmers, for people living downstream, for infrastructure maintenance, and for the environment overall. Moreover, these benefits would accrue to the poor, disadvantaged groups who make up the target population and whose situation contributes to socioeconomic instability in the country.
- 2.29 Based on the results of the socioeconomic survey conducted for this program and information from other studies and experience in El Salvador, it has been established that: (i) many farmers are aware of the benefits of soil-conservation practices and are interested in adopting them; (ii) these farmers have indicated that they have not yet adopted such practices because of the high initial cost, which they cannot afford; (iii) they lack access to financing; (iv) they do not know how to design and carry out this kind of works, except for the most basic activities, such erecting barriers made of stubble.
- 2.30 To minimize these limitations, an incentive has been included - as direct, short-term support (not to last more than two years) under a cost-sharing format and with partial cost recovery - whereby farmers will assume specific responsibilities and contribute part of the labor (between 10% and 50% of the cost of the conservation measures, depending on the gradient and surface area involved) and repay part of the incentive to local farmers' associations.
- 2.31 The incentive would be provided in kind (inputs, seeds, plants, tools) and in cash, as payment for additional family labor used in specific conservation works that had been agreed upon in advance, when necessary. For farms with gradients of over 15%, an estimated 60% of the incentive would be in cash; for those with gradients



less than 15%, around 15% of the incentive would in cash. Annex II-6 includes a detailed description of the incentive plan.

- 2.32 The work plan and the amount of the incentive will be determined in each case by mutual agreement between the farmer and the extension worker, bearing in mind each farm's features. In exchange for the incentive, the farmer will agree: to carry out the conservation works agreed upon (performance of the works will be a condition for cash payment for work done); to follow the technical guidelines set out by the technical-assistance activities; and to adopt the proposed conservation model.
- 2.33 The Operating Regulations (Annex III-3) set forth specific eligibility criteria for receiving incentives, including property size and the fact that a farmer must live in the service area of the soil conservation subcomponent, have legal occupancy (as owner, tenant, or renter having a special arrangement with the owner), and agree to repay to the farmers' association the previously set percentage of 80% of the incentive. Such payments would be made to a fund administered by the local association.

G. Costs and financing plan

1. Costs

- 2.34 The total cost of the program is estimated at US\$35.89 million. Of that amount, US\$1.99 million would be for the environmental management component, to be financed under the technical-cooperation operation outlined in Annex II-1. The remaining US\$33.9 million would be for the upper Lempa River basin component; the summary of costs for this component (by investment category and source of funding) is presented in Table 2.

**Table 2**  
**Costs, investment categories, and sources of funding**  
**Component: Upper Lempa River Basin**  
**(US\$000)**

Category	IDB	Local	Total	%
<b>I. ADMINISTRATION</b>	<b>334.0</b>	<b>1,255.0</b>	<b>1,589.0</b>	<b>4.69</b>
1.1 Basin component executing unit	334.0	1,255.0	1,589.0	4.69
<b>II. DIRECT COSTS</b>	<b>25,106.0</b>	<b>1,995.0</b>	<b>27,101.0</b>	<b>79.94</b>
<b>2.1 PERMANENT IMPROVEMENTS</b>	<b>710.0</b>	<b>80.0</b>	<b>790.0</b>	<b>2.33</b>
2.1.1 Water-resource monitoring	250.0	80.0	330.0	
2.1.2 Protected areas	460.0		460.0	
<b>2.2 SOIL CONSERVATION AND AGROFORESTRY</b>	<b>22,085.0</b>	<b>0.0</b>	<b>22,085.0</b>	<b>65.15</b>
2.2.1 Extension services and technical assistance	9,280.0		9,280.0	
2.2.2 Training	1,205.0		1,205.0	
2.2.3 Promotion and organization, pilot-trial farmers	1,400.0		1,400.0	
2.2.4 Farm inputs	6,300.0		6,300.0	
2.2.5 Conservation works	3,900.0		3,900.0	
<b>2.3 EQUIPMENT AND VEHICLES</b>	<b>1,691.0</b>	<b>0.0</b>	<b>1,691.0</b>	<b>4.98</b>
2.3.1 Water and water-quality monitoring equipment	1,460.0		1,460.0	
2.3.2 Office equipment	45.0		45.0	
2.3.3 Vehicles and spare parts	186.0		186.0	
<b>2.4 ADVISORY SERVICES AND STUDIES</b>	<b>620.0</b>	<b>0.0</b>	<b>620.0</b>	<b>1.83</b>
2.4.1 Advisory services	170.0		170.0	
2.4.2 Studies	450.0		450.0	
<b>2.5 PERSONNEL OPERATING COSTS</b>	<b>0.0</b>	<b>1,915.0</b>	<b>1,915.0</b>	<b>5.65</b>
2.5.1 Personnel		1,655.0	1,655.0	
2.5.2 Operating costs		260.0	260.0	
<b>SUBTOTAL (I + II)</b>	<b>25,440.0</b>	<b>3,250.0</b>	<b>28,690.0</b>	<b>84.63</b>
<b>III. UNALLOCATED</b>	<b>2,729.0</b>	<b>110.0</b>	<b>2,839.0</b>	<b>8.32</b>
3.1 Contingencies	2,638.0	110.0	2,748.0	
3.2 Cost escalation	91.0		91.0	
<b>IV. FINANCIAL COSTS</b>	<b>1,831.0</b>	<b>540.0</b>	<b>2,371.0</b>	<b>7.05</b>
4.1 Interest	1,531.0		1,531.0	
4.2 Credit fee		540.0	540.0	
4.3 Inspection and supervision	300.0		300.0	
<b>TOTAL</b>	<b>30,000.0</b>	<b>3,900.0</b>	<b>33,900.0</b>	<b>100.0</b>
<b>Percent</b>	<b>88.5</b>	<b>11.5</b>	<b>100.0</b>	

- 2.35 The unit costs used for the final line items were researched on the local and international markets.
- 2.36 Administration accounts for 5% of the component's total cost (US\$1,589,000). These are costs for the executing unit for the upper Lempa River basin component, located in the Ministry of Agriculture. It includes 22 person-months of consultants' services for the management system for planning, evaluation, and monitoring (US\$334,000), which will be charged to the Bank. The local counterpart contribution would defray the unit's operating costs (US\$384,000) and local staff (a general coordinator, two administrative assistants, a secretary, and a driver in San Salvador; and a soil conservation coordinator, a monitoring coordinator, a professional technical assistant, a secretary, and a driver in the field) (US\$871,000).
- 2.37 The direct costs represent 80% of the component's total cost (US\$27,101,000) and are broken down as follows:
- a. Permanent improvements (US\$790,000). These comprise the following activities, which would be charged to the Bank's contribution: (i) civil works for reconditioning the hydro-metric system (US\$210,000); (ii) network for geodesic monitoring around the Cerrón Grande reservoir (US\$40,000); and (iii) facilities in three protected areas (guard houses, fences, monitoring posts, and shelters - US\$460,000). The local counterpart contribution would cover the upgrading of the Ministry of Agriculture's environmental testing laboratory (US\$80,000).
  - b. Soil conservation and agroforestry (US\$22,085,000). The following activities would be charged to the Bank's contribution: (i) administrative expenses for incentives and extension services and technical assistance, on force account - includes operating costs and outfitting of six field units, transportation and mobilization of extension workers, fees, travel expenses, and per diem of international consultants (US\$9,280,000); (ii) training for technical staff, extension workers, beneficiaries, and pilot-trial farmers, on force account (US\$1,205,000); (iii) program promotion and organization of beneficiaries into user associations, on force account (US\$650,000) and payment to pilot-trial farmers to support extension activities (US\$750,000); (iv) farm inputs (seeds, plants, hand tools, fertilizer, pesticides) as conservation-oriented incentives provided in kind to individual low-income farmers (US\$6,300,000); and (v) payment for family labor used to perform conservation works (drainage ditches, terracing, and windbreaks) as a conservation-oriented incentive for individual low-income farmers (US\$3,900,000).
  - c. Equipment and vehicles (US\$1,691,000). The following activities would be charged to the Bank's contribution:

(i) equipment for monitoring water resources and water quality (US\$1,460,000), which includes field instruments and equipment for the hydrometric system and for monitoring water quality (US\$260,000), hardware and software for the geographical information system (US\$90,000), equipment for bathymetric surveys (US\$60,000), and laboratory equipment for the Ministries of Agriculture and Health (US\$1,050,000); (ii) office equipment for the UEC (US\$45,000); and (iii) eight four-wheel drive vehicles and set of spare parts (US\$186,000) -- one for the UEC in San Salvador, one for the UEC in the field, and six for the field units of the soil conservation and agroforestry subcomponent.

d. Advisory services and studies (US\$620,000). The following activities would be charged to the Bank's contribution: (i) 12 person-months of international consultants' services for water resources and bathymetric surveys (US\$100,000), 8 person-months of international consultants' services (US\$65,000) and 4 person-months of local consultants' services (US\$5,000) for the MAG laboratory; and (ii) 30 person-months of international or local consultants' services for the management plans for the protected areas (US\$445,000), and 4 person-months of local consultants' services for the legal establishment of these areas (US\$5,000).

e. Personnel and operating costs (US\$1,915,000). These would be charged to the local counterpart contribution. Personnel costs (US\$1,655,000) would cover six supervisors for the protected areas and soil conservation subcomponent (US\$540,000), three surveying teams (one surveyor and one assistant per team), and 55 meter-readers for the hydrometric system (US\$445,000), one systems analyst and one cartographer for the geographical information system (US\$108,000), two technical assistants for taking bathymetric measurements (US\$7,000), one chemist, two assistants, support staff for the Ministry of Agriculture's laboratory (US\$150,000), and forest rangers for the protected areas (US\$405,000). The operating costs (US\$260,000) include equipment, supplies, and services for the field unit in San Salvador for the soil conservation subcomponent (US\$190,000), per diems for taking hydrometric measurements (US\$51,000), and expenses related to travel, per diems, and publication of bathymetric measurements (US\$19,000).

2.38 The unallocated expenses cover contingencies of US\$2,748,000 (estimated on the basis of rates of 10% or 3% over cost, depending on the nature of the cost), and cost escalation of US\$91,000, considering inflation only for costs in foreign currency, since the rate for costs in local currency will be negative owing to the relative inflation and United States dollar-conversion rates of the local currency.

- 2.39 The financial costs associated with the loan total US\$2,371,000, in respect of cover interest, the credit fee, and inspection and supervision. Interest was calculated based on a rate allowing for 5% to be charged to the Intermediate Financing Facility (IFF). Inspection and supervision was reckoned in equal amounts for each of the first four years of program execution. Interest and inspection/supervision will be financed by the Bank.

## 2. Financing plan

### a. Financing by the Bank

- 2.40 Loan. Bank financing for the upper Lempa River component will be charged against the ordinary capital in the amount of US\$30 million, subsidized by the IFF. Bearing in mind that: (i) El Salvador is eligible to use the IFF under the Eighth Replenishment (document AB-1683); (ii) El Salvador has embarked upon a process to establish peace in the wake of an armed conflict that ravaged the country for more than 10 years; and (iii) the entirety of the beneficiaries under this operation come from low-income groups who require softer borrowing terms, it is proposed that IFF resources be used to pay five percentage points of the interest rate on the overall loan amount. It is also proposed that financing be provided for more than 80% of the total amount, since the direct beneficiaries are from low-income groups.
- 2.41 Technical cooperation associated with the loan. In view of the foregoing, it is proposed that the Bank provide nonreimbursable financing for technical-cooperation funding in association with the loan, in the amount of US\$1,600,000 - to be charged to the net income of the Fund for Special Operations.

### b. Local counterpart funding

- 2.42 Local counterpart funding has been estimated at US\$3.9 million equivalent (11.5% of the total) for the loan and US\$390,000 for the technical cooperation. These amounts will be funded by the Government of El Salvador through the national budget.
- 2.43 Approximately 70% of the local contribution for the loan and 90% for the technical cooperation will be used to fund incremental staff at the Bureau of Environmental Protection, the Ministry of Agriculture (DGRNR/OCP), and other government agencies that will benefit from activities under the program. Fifteen percent of the local contribution to the loan will be applied toward the Bank's credit fee.
- 2.44 So as to ensure the availability of local-counterpart funding for program execution in keeping with the work plan, the borrower must demonstrate - as a condition precedent to the first disbursement - that the necessary resources are available for program execution during the first year. Furthermore, within the first quarter of

each fiscal year (for as long as activities are being carried out under the program), it must be shown that the budget allocations are available to continue and conclude the activities scheduled for the respective year.

### III. PROGRAM EXECUTION

#### A. Execution system

- 3.1 The system for program execution is reflected in the organizational chart attached in Annex III-1.
- 3.2 SEMA will be directly responsible for execution of the technical-cooperation operation to be carried out in association with the program for the environmental management support component. To supervise these activities, it will create a technical-cooperation executing unit (UECT). This unit will coordinate its activities with those conducted under ATN/SF-4336-ES and the National Water Supply and Sewerage Administration (ANSA) and the Salvadoran Institute for Municipal Development (ISDEM) environmental units called for thereunder. It will also coordinate activities under the new technical cooperation, both with the environmental protection units of MAG, CEL, MOP and Environmental Sanitation Department, Ministry of Health (SANAM), and with the MAG environmental laboratory, IGN, and the environmental unit of the Treasury.
- 3.3 The executing agency for the upper Lempa River basin investment component will be the Department of Renewable Natural Resources [Dirección General de Recursos Naturales Renovables] (DGRNR) of the MAG, in which an executing unit will be set up, with support from the project coordinating office (OCP) of the MAG. This unit would have an administrative office in San Salvador, a technical office in the field, and six operating offices in the field (UOPs). It will supervise activities for soil conservation and agroforestry in the basin, as well as activities to improve the MAG environmental testing laboratory, develop the geographical information system, and monitor water resources, and activities involving protected areas. Direct execution of activities in the field under the soil conservation and agroforestry subcomponent will be contracted out (to NGOs, private firms, or specialized institutions such as the Center for Agricultural Technology [Centro de Tecnología Agrícola] (CENTA) under the coordination and supervision of the six field offices.
- 3.4 For execution of the water resource monitoring subcomponent, the borrower must submit to the Bank, within 12 months after the effective date of the contract, evidence that an agreement has been signed between the executing agency and the CEL and between the executing agency and the Ministry of Health laboratory covering the activities concerned. This provision will be included in the special conditions of the contract.
- 3.5 Establishment of the UEC and the UECT will be a condition precedent to the first disbursement of the loan and technical-cooperation

funding. In addition, a coordination committee will be set up as a decision-making body consisting of the Executive Director of SEMA, the Director General of the DGRNR, representatives of ANDA and CEL, and a MICDES representative to coordinate the activities carried out under the El Salvador Environmental Protection Program by the various government agencies.

- 3.6 Incentives will be managed through FONAES and delivered to the beneficiaries by the administrative representative at each of the UOPs under the supervision of the UEC. The beneficiaries, together with the extension worker of the contractor, will draw up annual operating plans establishing their commitment to improvement and diversification, including agreement on the incentives to be received, both in cash and as payment for the day laborers working on conservation works and the amount of installments and schedule for repayment to the farmers' associations. The annual regional incentive plan prepared by the contractor and the farmers will consolidate the plans and will be forwarded to FONAES by the UOP with the consent of the UEC. Using project funds received through the Central Reserve Bank, FONAES will make available to the UOP through the banking system the funds necessary to implement the incentives set forth in the annual regional incentive plan, in accordance with the Operating Regulations and the applicable agreements.
- 3.7 Execution of the upper Lempa River basin investment component will be governed by the Operating Regulations, a draft of which is attached hereto as Annex III-3. Approval and entry into force of these regulations will be a condition precedent to the first disbursement.
- 3.8 According to the proposed draft Operating Regulations, the main eligibility criteria for the selection of beneficiaries to receive incentives under the soil conservation and agroforestry sub-component are as follows: (i) reside in the area of activity of the subcomponent, with established ownership of the land; (ii) possess a farm no larger than three hectares; (iii) be willing to carry out activities for technological change and have an express desire to voluntarily join the soil conservation program; and (iv) agree to repay to the farmers' associations promoted by the program 80% of the incentive received, beginning in the third year of program participation, within a period of no more than eight years.

**B. Procurement of goods and services**

- 3.9 The procurement of goods and services and contracts for construction works shall be performed in accordance with the procedures set forth in Annexes B and C to the loan contract. International public bidding shall be mandatory for procurement valued in excess of US\$250,000 for goods, US\$200,000 for services, and US\$1,000,000 for construction works. These thresholds have



been set on the basis of experience with similar projects in the country, which shows that foreign firms will bid on contracts in excess of these amounts. Tenders for less than these amounts shall take place in accordance with Annex III-4. Under no circumstances may provisions or stipulations be established that restrict or prevent the participation of consultants or contractors from the member countries of the Bank. The procurement plan is presented in Annex III-4. The Bank's procedures shall apply to the selection and contracting of consulting services financed entirely or in part with the financing proceeds.

- 3.10 As a condition precedent to the first disbursement, the final terms of reference for the consulting services to be hired during year 1 of the program and the schedule for the hiring of the consulting services must be submitted.

C. Disbursement schedule

- 3.11 Based on the goals set for program execution and the components that would be financed by the Bank, Table 3 shows the disbursement schedule for the upper Lempa River basin investment component:

Table 3 DISBURSEMENT SCHEDULE UPPER LEMPA RIVER BASIN INVESTMENT COMPONENT (in the equivalent of thousands of US\$)						
SOURCE/YEAR	1	2	3	4	5	TOTAL
IDB	6,200.00	5,200.00	8,100.00	7,100.00	3,400.00	30,000.00
LOCAL	950.00	810.00	770.00	700.00	670.00	3,900.00
TOTAL	7,150.00	6,010.00	8,870.00	7,800.00	4,070.00	33,900.00
%	21.10	17.73	26.17	23.00	12.00	100.00

- 3.12 During the first year of execution, the equipment and vehicles will be procured and most of the consulting services will be hired. In addition, a considerable portion of the civil works will be carried out. The activities under the soil conservation and agroforestry component will be undertaken gradually, reaching their highest levels in the third and fourth years of execution.

D. Advance of funds

- 3.13 To expedite program execution, an advance of funds may be established in the maximum amount of the equivalent of 15% of the loan.
- 3.14 The following amounts will be budgeted to provide the resources necessary to finance the incentives under the soil conservation and agroforestry component: US\$560,000 in year 1; US\$2.22 million in

year 2; US\$3.8 million in year 3; US\$3.3 million in year 4; and US\$1.07 million in year 5. It is important to ensure that these resources are available for the end-beneficiaries at the beginning of the farming cycle, thus justifying the above-mentioned annual advance of funds. This programming could be adjusted in annual evaluations to provide an adequate response to demand by farmers to join the program.

E. Cost recovery

- 3.15 The benefits of the activities for institutional strengthening, park protection, water resource monitoring, promotion and technical assistance are essentially of a social and public service nature. Consequently, the actual monetary costs of the investments are not expected to be recovered. Strictly production-related activities, however, are expected to be governed by a partial recovery approach.
- 3.16 For the soil conservation and agroforestry subcomponent, it was determined through the feasibility study, model farm analysis, and other similar projects and studies carried out in El Salvador, that conservationist practices with product diversification could be profitable for farmers with small hillside plots.
- 3.17 Based on the models used, on average, the farmers will begin repayment beginning in the third year after joining the program. They will thus have repaid an average of 80% of the value of the incentives received within a period of eight years, while maintaining their liquidity. It should be noted, however, that as a result of factors beyond the farmers' control incomes are unstable and vary from year to year and from one farmer to another. Moreover, despite technological change, these producers will continue to belong to low-income groups.
- 3.18 Considering the above, a recovery system will be set up through the farmers' associations supported by the program. In accepting to participate in the program, the farmers will sign an agreement to repay not less than 80% of the value of the incentives received, pursuant to the by-laws of the associations. The funds collected by the local associations will enable them to continue to provide support for the farmers through technical assistance to market the products and provide access to tools, seeds, and other inputs.

F. Maintenance

- 3.19 SEMA will be responsible for maintenance of the vehicles and equipment for the technical cooperation for environmental management support. For other equipment to be delivered to the environmental protection units of other agencies and institutions, SEMA will include the necessary maintenance clauses in the respective agreements.

- 3.20 For the upper Lempa River basin investment component, the DGRNR, of MAG, will be responsible for maintenance of the works, equipment, and vehicles.

G. Planning, evaluation, and monitoring system

- 3.21 Since the program includes complex activities, with respect to both institutional development and the upper Lempa River basin component, a management system for planning, evaluation, and monitoring will be used.

- 3.22 A consulting firm will be hired to implement and execute the SPS, and will establish, in coordination with the UEC and FONAES, the procedures, formats and other instruments required for delivery, supervision and evaluation of the incentive system.

- 3.23 As part of the monitoring system, the following indicators will be evaluated annually throughout program execution:

1. Soil conservation and agroforestry component

- a. Number of farmers having joined the program, broken down by gender and area in hectares under conservation arrangements.
- b. Number of community associations operating in the program area and number of members for each, broken down by gender.
- c. Area sown to basic grains, yields, production volume and value, broken down by gender.
- d. Area sown to other crops, production volume and value, broken down by product and by gender.
- e. Number of farmers trained by the program and number of farmers involved in demonstrations, broken down by gender.
- f. Type, volume and value of incentives received by farmers and amounts of repayments from associations.
- g. Changes in farmers' incomes as a result of conservationist practices.

2. Protected areas subcomponent

- a. Reduction in production activity within each of the three areas.
- b. Area protected with physical works and guards.

3. Water resources monitoring subcomponent

- a. Streamflow at each station (average daily, monthly, and yearly figures).
- b. Water quality at each station (average daily, monthly, and yearly figures).
- c. Volume of sedimented material at each station (average daily, monthly, and yearly figures).
- d. Volume of silt in the Cerrón Grande dam.

- e. Number of measurements per station, number of water quality samples per station, and number of laboratory tests, broken down by type of test.

4. Environmental management support subcomponent

- a. Type and size of data bases.
- b. Source and destination of access to data bases (information use levels).
- c. Type and number of digital maps produced.
- d. EIAs prepared by each environmental unit and by SEMA.
- e. EIAs reviewed, approved and rejected by SEMA.

- 3.24 Program execution will be monitored through the Country Office of the Bank in El Salvador, for which purpose it is recommended that a sector specialist be hired. In addition, every 12 months after initiation of the operation a meeting will be held in which the executing agency and the Bank will evaluate the results obtained during the previous year and plan activities for the following year. Should any of the goals not have been met or activities not have been carried out, the reasons will be evaluated and the necessary corrective measures will be recommended, which the executing agency will agree to implement the following year. This provision will be included in the Special Conditions of the contract.
- 3.25 Three years after the last disbursement of technical cooperation lending, SEMA will conduct and present to the Bank an ex post evaluation to determine the results achieved during that period.

H. Recognition of expenses

- 3.26 Expenses incurred by the executing agency of the upper Lempa River basin investment component may be recognized for Bank financing when they were incurred during the 12 months prior to the date of approval of the financing, in connection with the construction of protection works (such as surveillance stations, barriers, fences, checkpoints, and protective roofs) in the three protected areas, up to the equivalent of US\$300,000, provided the contracting process took place in accordance with the procedures agreed upon with the Bank (see Annex III-4).

#### IV. THE BORROWER AND EXECUTING AGENCIES

##### A. Borrower

- 4.1 The borrower will be the Government of the Republic of El Salvador, represented by MICDES.

##### B. Executing agencies

- 4.2 The executing agencies of the program will be: (i) SEMA, which will be responsible for execution of the technical-cooperation activities to provide support for environmental management, and (ii) the DGRNR of the MAG, with support from that Ministry's project coordinating office (OCP), which will be responsible for execution of the loan activities for the upper Lempa River basin investment component.

##### C. Bureau of Environmental Protection

- 4.3 SEMA reports to MICDES. It currently has a staff of 82, 18 of whom are professionals and 64 are technical, administrative, and support staff. Of this staff, five are paid by UNDP, 50 are paid out of the special budget for economic recovery [presupuesto extraordinario para reactivación económica] (PERE), and 27 are paid out of the government's regular budget. Of those paid out of the PERE, 13 are counterpart staff for the AID *Proyecto Promesa* and five are counterpart staff for ATN/SF-4336-ES. The 1995 budget is US\$1,061,000, of which US\$147,000 represents the government's budget allocation and US\$914,000 comes from PERE. Approximately 20% of the government's contribution is used to pay the salaries of permanent staff, including two professionals and 25 administrative and support staff. The remaining staff is financed under special project budgets.
- 4.4 The current structure of SEMA includes the following operations departments: policies and special studies; legal; evaluation, monitoring, and control; and environmental training, education, and dissemination.
- 4.5 As a condition precedent to the first disbursement of the technical cooperation funding, the government is to submit evidence that the UECT has been created within SEMA, with counterpart staff for the technical-cooperation project ATN/SF-4336-ES and the additional staff agreed upon with the Bank, as well as the facilities and logistical support required for the performance of their duties. As a condition precedent to the first disbursement of the loan, the government is to present evidence that the UEC has been created within DGRNR, with support from OCP and with the powers, initial staff, and timetable for additional staffing agreed upon with the Bank.

D. Department of Renewable Natural Resources

- 4.6 The DGRNR is the official agency responsible for conservation of renewable natural resources such as soil, water, and air. It is also responsible for protection of the flora and fauna and for administration of national parks and protected areas. These responsibilities cover all of the activities included in the upper Lempa River basin investment component.
- 4.7 The current budget of DGRNR is US\$10.95 million, of which about US\$3 million comes from the Government of El Salvador's operating budget and is included in the budget allocation for MAG, US\$3.25 million comes from PERE, and US\$4.7 million comes from the investment budget. Of the DGRNR operating budget, 66% is earmarked for payments of salaries of permanent staff and contract staff. In addition to its operating budget, DGRNR uses 19% of the PERE for personnel expenses.
- 4.8 DGRNR currently has 598 permanent and contract staff members. Of these, 179 are technicians, 103 administrative, and 316 support staff. The technicians include 130 professionals.
- 4.9 The MAG is currently restructuring with World Bank support with a view to performing its duties more efficiently. In the area of natural resources, it is in the process of strengthening DGRNR with support from the Government of Japan.
- 4.10 The current structure of DGRNR includes three divisions: natural resources, hydrology and meteorology, and irrigation and drainage. It also has support units in the areas of planning, legal affairs, internal audit, administration, and communications.
- 4.11 The executing unit for the investment component of this operation is located in DGRNR and would receive support from the natural resources and hydrology and meteorology divisions, as well as the support units, in addition to administrative support from OCP.

E. Project coordinating office

- 4.12 The OCP reports to MAG, which was created under Executive Resolution 916 of the Crop and Livestock Division, dated September 24, 1992, and is responsible for coordinating operations under major investment projects in the sector, as well as others which call for close intersector governmental relations. The OCP is perceived as a small, efficient institution with a comprehensive vision of the MAG's more significant projects.
- 4.13 The OCP is a support body that reports directly to the Office of the Minister and coordinates the MAG's operating divisions through a consultative sector committee. It coordinates with other government bodies through an external consultative committee.

- 4.14 It's current budget is US\$82,044, of which US\$33,079 comes from the government and the remainder from the various institutions financing projects. Its staff of 23 includes 12 professional, five administrative, and six support staff.
- 4.15 The organizational structure consists of four levels: decision-making, advisory, support, and operational.
- a. The decision-making level consists of the management, which is responsible for ensuring compliance with the OCP's policies, objectives, work plans, and budget and exercises functional authority over the executing units for the MAG's priority projects.
  - b. The advisory level consists of the technical unit, which is responsible for monitoring and evaluation of projects under way, and for formulating methodologies for preparation of the project studies portfolio.
  - c. The support level comprises the administrative unit, which is mainly responsible for ensuring compliance with established procedures and exercising administrative and financial management of projects assigned to OCP.
  - d. At the operational level are the executing units for priority projects, which are responsible for achieving the technical and financial objectives and goals set in the operating plans agreed upon with sponsoring agencies and other bodies concerned.

F. El Salvador Environmental Fund

- 4.16 FONAES was created on June 16, 1991 by Legislative Decree 23. It is authorized to administer funds from various sources, including national debt restructuring agreements and other specific agreements with other countries and with international and national organizations. These funds are managed in separate accounts. The FONAES administrative expenses are defrayed by the various sources.
- 4.17 FONAES has its own administrative structure, with a board of directors and a director general. Serving on the board are eight directors representing the public and private sectors and non-governmental organizations (NGOs). The chairman of the board is appointed by the President of El Salvador.

G. Transfer of resources

- 4.18 The program funds will be administered in three special accounts: one for the technical-cooperation funding, one for the investment component, and one for the incentives for the end-beneficiaries of the soil conservation and agroforestry subcomponent to be carried out in the upper Lempa River basin. The technical-cooperation

funding account will be administered by SEMA and the UECT. The investment component account will be administered by DGRNR and the UEC.

- 4.19 The funds earmarked to finance the incentives will be deposited in an account administered by FONAES. Following the annual incentive plan, and subject to approval by the UEC, FONAES will deliver the funds through the banking system to the regional operating units established by the contractor. As a condition precedent to the first disbursement, the borrower must submit evidence that an agreement between the borrower and FONAES for financial management of the incentive resources and opening of the necessary account has been signed.
- 4.20 The Central Reserve Bank will deposit the funds in the three accounts to finance the activities planned. The executing units will use the funds following procedures previously approved by the Government of El Salvador and the Bank.
- 4.21 Every year, the UEC will prepare an annual execution plan for the investment component and the respective budgets, including the annual incentive plan. The annual program plan and budget must be submitted to the Bank for approval.
- 4.22 SEMA and DGRNR will submit to the Bank annual financial reports for their respective operations, along with reports by external auditors. The audits will be conducted by separate auditing firms and will cover the financial transactions carried out in the various accounts.



## V. FEASIBILITY AND RISKS

### A. Technical feasibility

- 5.1 The program is considered feasible from a technical viewpoint for the reasons discussed below.
- 5.2 It was designed based on systematic analysis of the environmental situation in the country, identifying the main shortcomings in terms of structure, which will be corrected through the environmental management support component. The program will provide the advisory services necessary for proper execution.
- 5.3 The soil conservation and agroforestry subcomponent was designed on the basis of soil and agronomy studies reflecting local conditions, including land ownership and plot size and slope.
- 5.4 The proposed soil conservation practices (terracing and drainage ditches along slopes) are well-known in the country and the technical expertise is available to establish and promote them. Biomechanical soil conservation practices (hedgerows) are well-known and practiced in the area. The introduction of species of commercial value (pineapples) and for timber production (*madrecacao*) is technically and socially feasible.
- 5.5 The extension program design is based on the local availability of such services (NGOs or CENTA), and there is a supply of local extension workers to cover program needs with the necessary training to be provided under the program.
- 5.6 The establishment of tree stands for firewood and timber production is a well-known practice used throughout the program area. Access to seedlings and technical assistance will help disseminate it in the program area. The proposed species (*madrecacao*, *Eucalyptus camaldulensis*, and teak) are valued by farmers, and knowledge of the care necessary to grow them on slopes is widespread.
- 5.7 The availability of and access to the labor and inputs required to execute the soil conservation and agroforestry subcomponent were taken into account in the program design.
- 5.8 The activities called for in the water resource monitoring subcomponent and protected areas subcomponent are neither complex nor unfamiliar in the country. For the bathymetric surveys, the geographical information system, and the laboratory testing for water pollution control, the program will provide the necessary advisory services.

B. Environmental feasibility

- 5.9 The program is considered feasible from an environmental perspective since the proposed activities are consistent with the objectives of improved environmental management in the country, and conservation and sustainable management of the renewable natural resources in the upper Lempa River basin.
- 5.10 The program as a whole was therefore classified as a Category I operation by the Environmental Management Committee [Comité del Medio Ambiente] (CMA) at its meeting of March 2, 1993 (CMA 8/93). However, in order to prevent the occurrence of any undesirable indirect impact which could be generated by certain of the activities for commercial development of the natural resources, an environmental summary was prepared identifying such impact. The summary was approved by the CMA at its meeting of May 25, 1994 (CMA 17/94), and is available for consultation in RE2/EN2.
- 5.11 It was thus concluded that the overall impact of all the activities will be highly positive, especially the decrease in erosion. As for the use of agricultural chemicals, and despite crop diversification and the introduction of forest species, the technology packages for the soil conservation and agroforestry subcomponent include a reorganization of the use, amount, and types of chemicals to be used, mainly substituting highly toxic ones with less harmful ones.

C. Socioeconomic feasibility

- 5.12 The El Salvador Environmental Protection Program is considered economically and socially feasible for the reasons discussed below.

1. Nonreimbursable technical cooperation

- 5.13 The benefits directly attributable to the technical-cooperation project are expected to be reflected in: (i) an increase in the efficiency and operating capacity of the environmental protection units in the country; (ii) improvements and systematization of the type of environmental information needed to refine decision-making; and (iii) better environmental quality control through the institution of legislation, regulations, and standards.

2. Investments in the upper Lempa River basin

- 5.14 For this component, the economic feasibility of the investments in the soil conservation and agroforestry subcomponent was assessed. The evaluation covered 80% of investment costs. The benefits of the protected areas subcomponent and the water resource monitoring subcomponent were not quantified, since in the former, only small-scale protection works and the preparation of management plans are involved, and in the latter case, basic information on water quality is to be collected for use in making future investments.

- 5.15 As for methodology, the economic evaluation is based on the productivity scheme, through which benefits are reflected in the yield and diversification of agricultural production and in farmer income. There are also externalities that could have a considerable impact on improving the quantity and quality of water resources and on maintenance of the useful life of the Cerrón Grande dam.
- 5.16 In this case, only the benefits attributable to the change in conservationist technology were quantified, according to the impact on the agricultural income of the farms. The sedimentology studies conducted showed that the reduction in sediment deposited in the Cerrón Grande reservoir attributable to the program would be minimal and that its economic value in terms of additional electric energy would be barely perceptible during the life of the project. As for the benefits of the soil conservation and agroforestry subcomponent for water quality, insufficient data are available to corroborate them. This information will be obtained through the water resource monitoring subcomponent to be executed under the program. However, there are indications of high pollution and declining streamflow, which could be mitigated by the program.
- 5.17 The economic feasibility of the investments under the soil conservation and agroforestry subcomponent is based mainly on an understanding of the needs and economic behavior of agricultural producers, since they are the ones who will ultimately carry out the conservation works and other activities and will directly benefit from the program.
- 5.18 The conditions necessary for the farmers to adopt conservationist practices are considered to be met, given that: (i) the proposed technologies are technically feasible, adapted to the milieu, and significantly more profitable than current practices; and (ii) farmer aversion to risk will be reduced through technical assistance, access to plants, seeds, and other inputs, support for marketing of the new products, and a one-time, direct, temporary incentive to support conservation works.

### 3. Economic evaluation methodology

- 5.19 The rate of return of the program was evaluated using market prices and shadow prices in order to correct distortions due to current taxes and/or subsidies.
- 5.20 The net incremental benefits were computed by considering the "with project" and "without project" situation over a 25-year period, which was considered appropriate to assess the flow of benefits for the type of agroforestry products involved.
- 5.21 The benefits for the farm stem from two sources: (i) additional income due to crop diversification; and (ii) additional income due

to maintenance of and possible increase in agricultural productivity. The benefits attributable to crop diversification were computed, assuming that yield for basic grains in the "without project" situation is maintained, for a conservative estimate.

- 5.22 A feasibility analysis was conducted of the private investments and at the aggregate level for the subcomponent as a whole. Model farms were used to determine whether the proposed technology is financially feasible and confirm that the farmers will have the resources necessary to implement the program recommendations.

#### 4. Findings of the economic evaluation

- 5.23 Table 4 summarizes the findings of the economic evaluation of the subcomponent:

TABLE 4 SUMMARY OF ECONOMIC EVALUATION			
	NPV US\$ THOUSANDS	EIRR %	C/B
EVALUATION AT SHADOW PRICES Soil conservation and agroforestry	70,076.00	42.4	6.10
EVALUATION AT MARKET PRICES Soil conservation and agroforestry	66,868.00	39.6	5.52

- 5.24 The soil conservation and agroforestry subcomponent is highly profitable, according to the rates of return and cost-benefit ratio shown in the above table. The high rates of return are due to the following factors: first, the conservation works and crop diversification lead to rapid growth in the value of production; and second, once the soil conservation works are completed, the costs of production and maintenance for the producers are practically the same as or less than without the project. This reduction in the costs of inputs is due to the fact that the proposed models reduce the need for the toxic chemicals currently used by producers.
- 5.25 The profitability of the type of program proposed is consistent with the findings of similar studies for El Salvador conducted by the FAO, AID, and the World Bank. In all cases, the internal rates of return for similar soil conservation models were greater than 40%.
- 5.26 The production generated under the soil conservation and agroforestry subcomponent is expected to meet the farmers' own needs for staples and firewood. Production will also be diversified with fruits and vegetables, in which the farmers have expressed interest and for which markets exist. A contribution will be made towards improving food quality and nutrition for the family unit, which depends essentially on consumption of corn and beans.

## 5. Sensitivity analysis

- 5.27 Table 5 below shows the findings of the sensitivity analysis according to a possible 10% cost increase and 10% decrease in the price of the products, as well as slower and lower annual rates of incorporation than those used in the basic case (10%, 30%, 40%, and 20%). The findings continue to show robust yields and the investment component is profitable. It was estimated that costs would have to increase 30% to lower the internal rate of return to 12%.

TABLE 5 SENSITIVITY ANALYSIS (shadow prices)			
SCENARIO	NPV US\$ THOUSANDS	IRR %	C/B
10% cost increase	49,638	28.8	3.45
10% price decrease	39,374	26.1	3.22
Slower incorporation (5%, 15%, 35%, 45%)	59,994	34.0	4.26
Lower incorporation (20% less)	45,497	30.0	3.47

## D. Distributional impact

- 5.28 The program investments are targeted to small hillside farmers with an average annual family income of US\$1,180. The family unit comprises an average of five persons. All of the direct beneficiaries of the soil conservation and agroforestry subcomponent are considered to belong to low-income groups. The Bank's parameters indicate a poverty line of US\$750 per capita per annum. The program fulfills the mandates of the Eighth General Increase in Resources, as the investments are targeted geographically to poor beneficiaries, all of whom would be below the poverty line.
- 5.29 Ninety-five percent of the net present value would accrue to the producers, and the remainder to the government or rest of society.

## E. Institutional feasibility

- 5.30 The program is considered institutionally feasible for the reasons described below.
- 5.31 Both SEMA and the DGRNR have the basic structure and resources necessary to launch the program and to assimilate the institutional strengthening (technical assistance, training, institutionalization, and assignment of permanent staff) called for under the program, through both the technical-cooperation funding and the loan. This will ensure the permanence of the two agencies and their continuous performance of the duties assigned to them.

- 5.32 There will be two executing units with incremental counterpart staff and the support of national and international advisors. The counterpart staff will be selected on the basis of program needs and will work full-time on program planning, coordination, and supervision.
- 5.33 For execution of the technical-cooperation project, SEMA and other sector institutions will receive support from advisors for the various activities. SEMA's capacity will be strengthened by the provision of incremental counterpart staff and technical advisors. The DGRNR is the government agency responsible for execution of the investment component. It will be strengthened through the contribution from the Government of Japan and the administrative support of OCP, which has extensive experience administering World Bank programs. In addition, direct execution of the investment component in the field will be contracted out to consulting firms, NGOs, or specialized agencies with experience in this type of activity in the country.
- 5.34 In anticipation of program execution, and in order to strengthen the administrative and financial capacity of both SEMA and DGRNR/OCP, both agencies will receive technical assistance for the development and implementation of administrative, accounting, and financial systems specifically designed for administration of the program resources, financed by nonreimbursable technical-cooperation operation ATN/SF-4406-ES.

F. Financial feasibility

- 5.35 The local counterpart contribution to the loan operation will be US\$3.9 million over a five-year period, and US\$390,000 over a two-year period for the technical-cooperation project. The program is considered feasible from a financial point of view because these amounts do not represent an undue burden, given government commitments.
- 5.36 The figures have been discussed with MIPLAN, SEMA, and MAG officials, who have confirmed the government's commitment to providing the necessary funds to finance the counterpart contribution.
- 5.37 From the financial standpoint, the private investments are quite profitable for the individual farmers, who are responsible for directly carrying out the soil conservation and agroforestry works and activities. This guarantees that the investments will be profitable financially. In addition, repayment mechanisms within the communities themselves contribute to developing the productive and organizational base, and therefore financial sustainability, in the program areas.

G. Community participation

- 5.38 Nine meetings were held in the potential program areas and 536 producers - both men and women - were consulted on their opinions on the priority problems in the critical areas concerning the use and management of renewable natural resources and the environmental problems in their milieu. The farmers also made suggestions so that the technical proposals would better reflect the concrete reality in each area. This helped improve the design of the production models, the agricultural extension program, and the type of execution in the field, emphasizing the participation of well-known NGOs with working experience in the country.
- 5.39 Subsequently, to broaden the baseline information, a socioeconomic survey was conducted in the areas selected for the soil conservation and agroforestry subcomponent on a representative sample by area covering a total of 462 farmers. The survey targeted both men and women, but included a series of questions for rural women who were not heads of households, to investigate the problems limiting the participation of women.
- 5.40 A socioeconomic portrait of the potential beneficiaries was thus obtained, along with an indication of the obstacles they would face to adopt conservation-oriented practices. Specifically, an effort was made to determine: (i) whether they were interested in participating in this type of program; (ii) what their needs were and how they would accept conservation-oriented packages; (iii) the breakdown of family manpower and the role of women; (iv) farm income and outside income; (v) amount of money remitted from abroad; (vi) land ownership; (vii) access to credit; (viii) technical assistance needs; (ix) marketing channels and the existence of markets for the proposed products; and (x) farmer participation in grass roots organizations.
- 5.41 International organizations and NGOs with the best track record in the country were consulted on their experience in similar activities in El Salvador, and to obtain a perspective other than the official one.

H. Participation of women

- 5.42 In the area of the soil conservation and agroforestry subcomponent, the participation of women in agricultural activities is characterized by the following: (i) low ownership (some 10%); (ii) high proportion of unpaid family farm labor (some 45%); (iii) low participation in producers' organizations (about 6.5%); and (iv) great interest in training in soil conservation works (about 60%).
- 5.43 In light of the above, to increase the participation of women as direct producers in agricultural income-generating activities, the

promotion, training, and extension programs will include the following activities:

- a. Provide training for community leaders designed to: (i) promote changes in values regarding the traditional roles assigned to women; (ii) encourage greater participation by women in decision-making and control of goods and resources; and (iii) help recruit women for soil conservation practices.
- b. Establish groups of women with the assistance of community organizers in order to: (i) devise community solutions to facilitate the performance of daily activities such as child care, in order to give women time to engage in productive activities; and (ii) motivate women to participate more in rural farmers' associations.
- c. Include activities in the training program on specific topics pertaining to family and community issues for rural women, their participation in and access to productive resources, and their role in agricultural production.
- d. Ensure that the firms, NGOs, or specialized agencies hired for promotion, training, and extension work have gender issue specialists in order to involve women in the soil conservation and agroforestry activities.

I. Program risks

5.44 The main risks of the program concern the following factors:

- a. Success of the environmental management support component and the upper Lempa River basin investment component will depend on the capacity of SEMA and the DGRNR/OCP of MAG to execute the program. This risk will be attenuated, however, by the technical-cooperation project to be carried out in association with the loan, along with technical-cooperation operations ATN/SF-4336-ES, and ATN/SF-4406-ES, already approved. One of the main objectives of the latter operation is strengthening of the executing units in the principal administrative and financial procedures of the Bank.
- b. According to the survey sample, 23% of the farmers in the program area are tenants, most of whom are unlikely to adopt conservation-oriented practices that require major works and improvements on the property. However, the level of interest expressed in soil conservation, even by the tenant group (over 85%), leads us to believe that with the promotion, training, and extension work services, appropriate practices, and the system of incentives, most will be motivated to obtain special agreements with their landlords and participate in the program.



- c. A considerable risk in the soil conservation and agroforestry subcomponent is that the conservation-oriented practices might not be adopted during the incentive period or might not continue after subcomponent completion. The program design reduces this risk through the technical assistance and the establishment of an incentive mechanism, in order to achieve farmer participation. The use of these practices is expected to continue after the incentive period is over, as a result of the inclusion of known plans to diversify production, which are of high value and for which markets already exist.
- d. In addition, the subcomponent was designed to ensure direct and timely availability of the above-mentioned elements to farmers, through operating units in the field, with the participation of NGOs and/or specialized agencies with extensive experience in such programs.

PLAN OF OPERATIONS  
SUPPORT FOR ENVIRONMENTAL MANAGEMENT IN EL SALVADOR  
(TC-94-05-10-2)

I. BACKGROUND

- 1.1 The Republic of El Salvador has submitted to the Bank a request for financing to execute the El Salvador Environmental Protection Program, which is part of the government's environmental strategy. The program calls for activities to improve the country's environmental situation, through two components: a technical-cooperation operation for environmental management support associated with the loan, as described in this plan of operations, and an investment loan for protection of natural resources in the upper Lempa River basin.
- 1.2 The Government of El Salvador is structuring the National Environmental Management System (SINAMA) under the environmental protection law, which is at present in the form of a bill under discussion by the legislature. Since it may take quite some time to attain the objectives pursued by this law, independent of debate and passage of the bill, the technical-cooperation funding is designed to strengthen the main entities within the SINAMA to enable them to perform their duties thereunder.

II. OBJECTIVES AND GOALS

A. Overall objective

- 2.1 This purpose of this operation will be to help design and initiate a national environmental management system in El Salvador, for organization and coordination of sector activities in this field, in the context of an environmental policy that has already been defined.

B. Specific objectives

- 2.2 The following are the specific objectives of this operation:
  - a. To provide technical assistance to SINAMA institutions to develop institutional objectives, policies, strategies, structures, and procedures for environmental protection, in order to strengthen their capacity for action.
  - b. To complete the Environmental Information System [Sistema de Información Ambiental] (SIA) and the Environmental Impact

Assessment System [Sistema de Evaluación de Impacto Ambiental] (SEIA) within SINAMA entities not covered by technical-cooperation project ATN/SF-4336-ES, which has already been approved.

- c. To carry out a training program on technical, managerial, legal, and administrative matters connected with natural-resource management and environmental protection.
- d. To advise SINAMA institutions on preparing environmental protection legislation, regulations, standards, and procedures.

### III. PROJECT DESCRIPTION

#### A. Beneficiaries

3.1 Below, in order of importance, are the units that will be beneficiaries of this component:

- a. SEMA, central unit of the national system;
- b. environmental protection units of the executing agencies that belong to the national system and will play a leading role in operating the environmental information and environmental impact assessment systems: (i) Environmental Protection Unit of the Ministry of Agriculture; (ii) Environmental Protection Unit of the Lempa River Hydroelectric Commission; (iii) Environmental Sanitation Division of the Ministry of Health; and (iv) Environmental Protection Unit of the Ministry of Public Works; and
- c. specialized environmental-service agencies, needed to implement the proposed systems: (i) National Institute of Geography [Instituto Geográfico Nacional] (IGN); (ii) Environmental Protection Unit of the Auditor General's Office; (iii) Environmental Testing Laboratory of the Ministry of Agriculture; and (iv) the Ministry of Health laboratory.

#### B. Activities

3.2 The activities planned for implementation over 24 months are organized into four components that correspond to the four specific objectives.

##### 1. Institutional strengthening

3.3 Under this component, technical assistance will be provided for formulating and/or updating the institutional policies, strategies, and procedures of the national system units. Special emphasis will

be given to consolidating SEMA's role as the central unit of the system and its strategic-planning capabilities.

- 3.4 The technical assistance will start with an institutional analysis of each beneficiary and its capacity to perform the functions assigned it under the national system for execution of the country's environmental policy. Also to be studied are the mechanisms to be used to coordinate activities among the system environmental units, and between them and the rest of the public and private sector. Studies will also be conducted on opportunities for financing and self-financing to provide ongoing support to the environmental management system and the basic environmental information and impact assessment systems.
  - 3.5 The beneficiary agencies' internal operating procedures will be reviewed, administrative, financial, and communications procedures devised, and the corresponding operating manuals prepared for use by officials of the beneficiary agencies.
  - 3.6 All the beneficiary agencies will help prepare joint strategies and plans of action for implementing the national environmental policy.
  - 3.7 The beneficiary agencies will receive basic equipment for data-processing and for communication between the central agencies and the regional and departmental offices.
  - 3.8 The regional and departmental offices will also receive technical assistance with devising and instituting a system for dealing with public complaints about environmental offenses and problems.
  - 3.9 This technical-cooperation funding will be used to finance certain priority publications put out by the national system units and/or prepared during execution of this project.
2. Complementary operation of the environmental information and impact assessment systems not covered by ATN/SF-4336-ES
- 3.10 Plans call for expanding coverage of the SIA to be put in place in part under technical cooperation ATN/SF-4336-ES, already approved, to include the environmental units benefiting from this operation, and for developing a geographical information system (GIS) applied to the environment. The aim is to establish connections among the participating units for transferring information and apportioning responsibility for quality control.
  - 3.11 The SIA is based on a model compatible with related systems in operation in the rest of Central America and in the Latin American region as a whole. It will be composed of a set of physical, biological, ecological, and socioeconomic data bases, a georeferencing mechanism, an analytical program, and the equipment

and procedures needed for its operation (data collection, processing, and dissemination).

- 3.12 In order to complete the georeferencing of the information and data collected, it is necessary to boost the IGN's computerized capacity for generating basic digital cartography. The proposed support would consist of funding of approximately US\$132,500 of which US\$106,000 will be for equipment. This support will enable the IGN to improve coverage of the country's basic cartography, through computerization of all maps in order to feed the SIA.
- 3.13 At the same time, and closely linked to the above, a basic environmental impact assessment system [sistema básico de evaluación de impacto ambiental] (SEIA) will be set up, consisting of a set of procedures for identifying the potential environmental impact of proposed public and private investment projects, with responsibilities clearly distributed among the members of the national system.
- 3.14 Under this technical-cooperation operation, the proposed institutional model will be reviewed, adjustments considered essential will be proposed, and the regulations required to put it into operation will be written.
- 3.15 SEMA will establish agreements with the units that would be involved in operating the SEIA. Representatives of the units will form a consultative committee whose main function will be to oversee enforcement of the pertinent laws and regulations, and efficient and effective operation of the SEIA.
- 3.16 Financing from this operation will be used to devise a set of priority standards and rules for operation of the EIA system, under the responsibility of the participating agencies and/or specialized units and with the technical assistance provided.
- 3.17 Progress will be made on classification of projects and activities subject to an EIA, and preparation of a manual for use in the various stages of the project proposal processing.
- 3.18 This operation will be used to increase the scope of the EIA system to cover the entire country in terms of the universe of private- and public-sector projects and activities subject to such assessment, for subsequent execution.
- 3.19 One important element of the operation of the EIA system will be the provision of sample-analysis laboratory services. The country has two laboratories that could be used for this purpose; the MAG Environmental Testing Laboratory, and the laboratory of the Ministry of Health. These laboratories, however, would be unable to provide those services in their present state. It is therefore proposed to use funds from this operation to rehabilitate them and modernize their equipment and procedures in the context of a

program, designed as part of the environmental impact assessment system, to monitor and control pollution and its effects.

### 3. Training

- 3.20 Attention has been given to the need to carry out a set of training activities for officials of the beneficiary agencies. They will include 10 upgrading courses and seminars in technical subjects, four specialization courses abroad, five short courses at local specialist institutes, and five in-service training sessions.
- 3.21 The training abroad will cover the following topics: (i) environmental impact assessment of investment projects in various areas; (ii) operation and use of geographical information systems; (iii) natural-resource management; and (iv) control of pollution from various sources.
- 3.22 The training program in the country will be conducted with support from the consulting firm, under subcontracts with local agencies and institutes. Presentation of the preliminary training program, along with indicative selection criteria for participants in each of the courses, short courses, in-service training sessions, etc., will be a condition precedent to the first disbursement.

### 4. Support for preparation of environmental-protection laws, regulations, and standards

- 3.23 The purpose of this component is to help SEMA and other participating agencies develop regulations for implementation of the law on environmental protection and to review and improve related legislation with special attention to the Forestry Act, the Irrigation and Drainage Act, the Pesticide Control Act, and others.
- 3.24 In addition, the sector agencies will be given support to include environmental protection provisions in other areas of legislation that affect the welfare of the population (Health Code, Municipal Code, Penal Code, Civil Code, Labor Code, and Mining Code).

### C. Execution plan

- 3.25 The technical-cooperation operation will be executed by SEMA, through the technical cooperation execution unit [Unidad Ejecutora de la Cooperación-Técnica] (UECT), with support from a consulting firm. The UECT will coordinate its activities with those to be performed under ATN/SF-4336-ES and by the ANDA and ISDEM environmental units called for under that technical-cooperation program. In addition, it will coordinate the activities to be performed under the new technical cooperation program, both with the environmental units at MAG, CEL, MOP, and SANAM, and with the MAG Environmental Testing Laboratory, IGN, and the environmental unit of the Treasury.

- 3.26 Prior to the first disbursement, the beneficiary shall present evidence that execution of operation ATN/SF-4336-ES has begun and that the UECT has been created, including the facilities and logistical support required for the performance of its duties, with an explicit indication of the actual and functional coordination between the latter and the staff and consultants for operation ATN/SF-4336-ES and the staff and consultants for the Promesa project financed by AID.
- 3.27 SEMA was created to serve as the executive secretariat of the National Environmental Council [Consejo Nacional del Medio Ambiente] (CONAMA), by Executive Decree 73, in December 1991. By Executive Decree 19 of July 15, 1994, SEMA was assigned to the Ministry for Coordination of Economic and Social Development [Ministerio de Coordinación del Desarrollo Económico y Social] (MICDES). Its relocation has generated a series of additional needs for institutional strengthening, some of which would be covered by this operation. By means of the conditions precedent noted, the Bank will attempt to ensure that SEMA is able not only to execute this technical-cooperation program, but also to take a leading role in the definition and subsequent operation of the systems to be implemented with this financing before it is allocated.
- 3.28 SEMA would hire the consulting firm, procure the equipment, coordinate execution of the training program, subcontract the training services to specialized institutions, and hire staff to prepare the ad hoc studies, and would be required to provide the local counterpart contribution. SEMA will appoint an official (technical coordinator for the project) to supervise execution of the operation, and coordinate the work of the consulting firm with the beneficiary agencies. The consulting firm must be hired and its contract negotiated as a condition precedent to the first disbursement.
- 3.29 SEMA would also be responsible for fulfilling the following conditions: (i) within six months after the effective date of the technical-cooperation agreement, creation and startup of the environmental protection units of the following executing units and appointment of the minimum management personnel: (a) Ministry of Agriculture; (b) Lempa River Hydroelectric Commission; (c) Environmental Sanitation Department of the Ministry of Health; and (d) Ministry of Public Works; and (ii) within six months after the effective date of the technical-cooperation agreement, signature of the respective agreements by the executing agency and: (a) the National Institute of Geography; (b) the Environmental Protection Unit of the Auditor General's Office; (c) the Environmental Testing Laboratory of the MAG; and (d) the Environmental Sanitation Laboratory of the Ministry of Health; and strengthening of these units with the minimum personnel agreed upon with the Bank.

- 3.30 The consulting firm will be a company of international prestige, with wide experience in environmental matters, and will be responsible for providing technical assistance to SEMA and the remaining bodies benefiting from this operation, in order to: (i) design and execute institutional strengthening programs; (ii) support the completion of the SIA, supporting SEMA in the selection and installation of equipment and the training of operators; (iii) complete the implementation of the environmental impact assessment system, establishing operating procedures both in SEMA and in the environmental units; and (iv) assist the executing agency in carrying out the training program. To this end, the consulting firm will provide 44 person/months of international consulting services and 96 person/months of local consulting services.
- 3.31 The technical-cooperation funds will be placed in a special account and administered by SEMA and UECT. The formalization of the appropriate instrument for transferring the necessary financing and counterpart funds to SEMA and opening the appropriate account shall be a condition precedent to the first disbursement.
- 3.32 The threshold amount above which procurement is to take place by competition or international public bidding is US\$250,000 for goods and US\$200,000 for services (see Annex III-4). No works are planned for execution.

D. Benefits and risks

- 3.33 The primary benefits of the technical-cooperation funding will be the following: (i) direct improvement of decision-making capacity in SEMA and the other organs of SINAMA; (ii) strengthening of coordination among the system organs; and (iii) enhanced efficiency of the system. The technical cooperation will also expedite the design and execution of other environmental-protection projects in the Bank's pipeline as well as projects with an environmental-protection component.
- 3.34 The main risks of this component concern the following factors: (i) SEMA is a young institution facing enormous constraints on its action; and (ii) most of the environmental protection units participating in the national environmental management system need to be strengthened in order to be in a position to make a contribution thereto. These risks would be attenuated, since the specific purpose of the technical-cooperation operation is to strengthen the national system as a whole.



#### IV. BUDGET

- 4.1 The total cost of the technical-cooperation operation is estimated at the equivalent of US\$1.99 million. The Bank's contribution would be the equivalent of US\$1.6 million, chargeable to the Fund for Special Operations. The local counterpart will be the equivalent of US\$390,000.
- 4.2 The consolidated budget and the provisional schedule for financial execution may be found below.

CONSOLIDATED BUDGET (US\$)			
CATEGORY	IDB	GOES	TOTAL
1. CONSULTING FIRM	961,040		961,040
1.1 Emoluments	961,040		961,040
- Fees	410,000		410,000
- Per diems, international consultants	95,040		95,040
- Direct costs	57,000		57,000
- Overhead	399,000		399,000
3. FELLOWSHIP HOLDERS AND PARTICIPANTS	190,000		190,000
3.1 Registration fees	90,000		90,000
3.2 Living allowance	75,000		75,000
3.3 Official travel	25,000		25,000
6. GENERAL SUPPORT	310,670	356,600	667,270
6.2 Furniture and materials		1,350	1,350
6.3 Equipment	290,670		290,670
6.4 Supplies	20,000	4,610	24,610
6.6 Support staff		343,200	343,200
6.8 Communications		7,440	7,440
7. PUBLICATIONS	20,000		20,000
7.1 Preliminary printing costs	5,000		5,000
7.3 Printing	10,000		10,000
7.4 Distribution	5,000		5,000
98. CONTINGENCIES (8%)	118,290	33,400	151,690
GRAND TOTAL	1,600,000	390,000	1,990,000

PROVISIONAL SCHEDULE FOR FINANCIAL EXECUTION (US\$)			
CONTRIBUTION	YEAR 1	YEAR 2	TOTAL
IDB	958,000	642,000	1,600,000
GOES	200,000	190,000	390,000
TOTAL	1,158,000	832,000	1,990,000

## V. JUSTIFICATION

- 5.1 SEMA, owing to its current structure and situation, lacks the capacity to fulfill the regulatory and monitoring functions needed to direct public and private investment, forestalling the incidence of the negative environmental effects it may have. There is consensus among the donor community concerning the need to devise a structure and procedures that would achieve these ends, strengthening SINAMA and SEMA functions and establishing sector environmental protection units to expand and strengthen its scope.
- 5.2 The purpose of the operation presented herein for consideration by the Bank is to help remedy these defects, initiating processes that could be continued with future operations by the Bank and other donors. The Government of El Salvador has expressed interest in implementing these reforms in the short term, largely with support from this operation.
- 5.3 The two components of the El Salvador Environmental Protection Program are closely linked and reinforce each other. Execution of the technical-cooperation operation will help reinforce the investment component's institutional operating base and enhance the sustainability of its long-term benefits. The investment component will generate information with which to feed the data bases to be used in the environmental information and impact assessment systems, especially through implementation of the monitoring scheme proposed.

## VI. REPORTS

### 1. Reports of the consulting firm

- 6.1 The consulting firm must present the following reports through the technical coordinator of the project:
  - a. within 30 days after the signature of the service contract, an initial report spelling out the work plan, which must include:  
(i) the execution schedule; and (ii) the revised list of staff;
  - b. progress reports on activities over six-month periods, containing the breakdown of activities conducted during the period as compared with the execution schedule, a followup study of the activities carried out, evaluating the degree to which the operation's specific and general objectives have been met, and a projection of the work to be done in the following six-month period, with recommendations on what course of action or other pertinent measures need to be taken; and

- c. Thirty days after the completion of the operation, a final report, which must be approved by SEMA and the Bank in order for payment of the last disbursement to be made.

2. Reports of the beneficiary

- 6.2 SEMA, through its executive director, must submit the following reports for Bank approval:

- a. semiannual reports containing comments on the progress reports prepared by the consulting firm and the local consultants' performance; and
- b. a final evaluation report indicating the degree of fulfillment by the consulting firm and the local consultants, to be presented to the Bank within 30 days after presentation of the final report by the firm to SEMA.

3. Financial reports

- 6.3 SEMA must present for Bank approval annual financial reports and a final financial report, audited by a firm of independent auditors accepted by the Bank.
- 6.4 The annual financial reports must be presented within 60 days after the end of each fiscal year, and the final financial report within three months after the last disbursement.

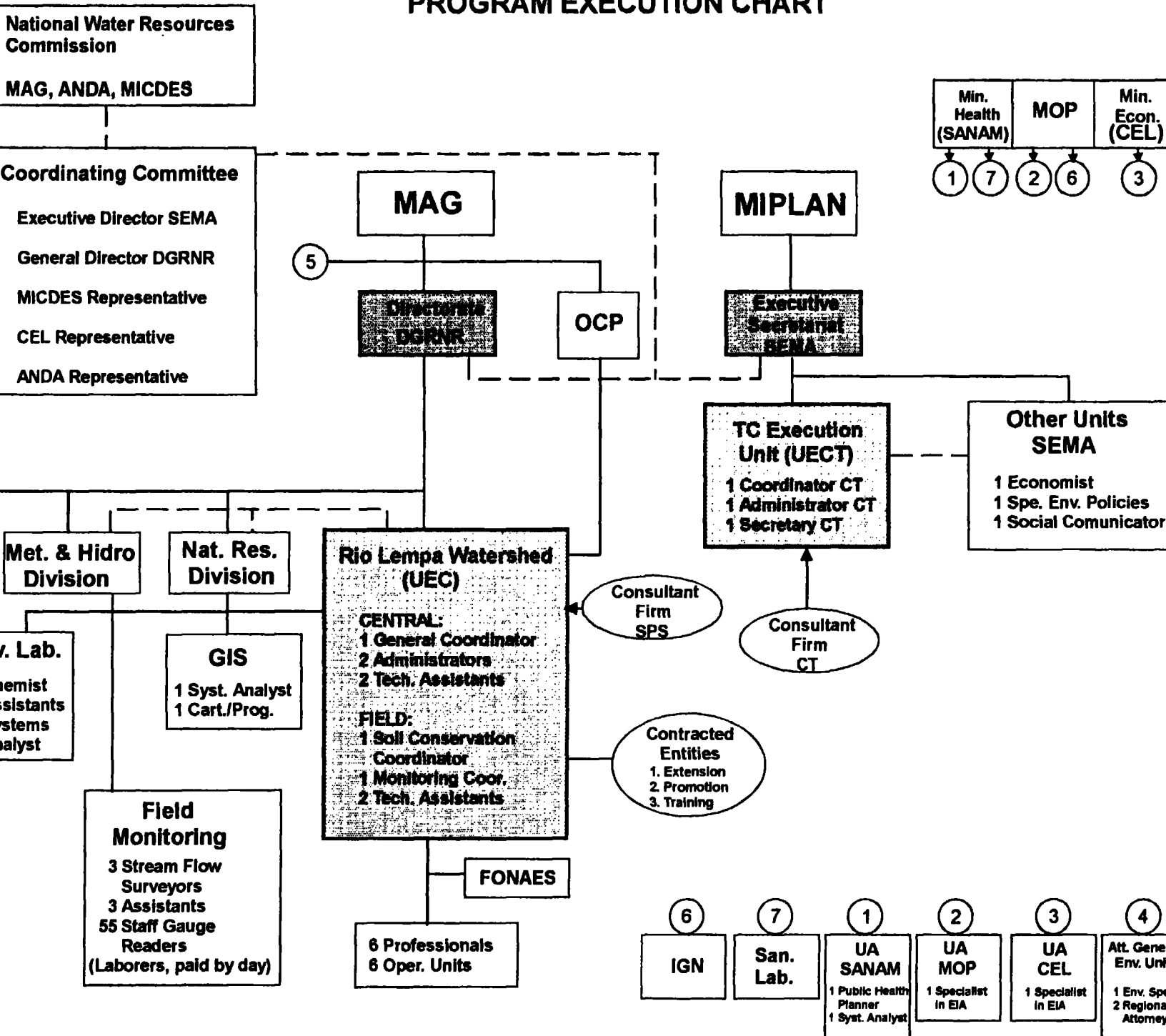
## VII. MONITORING AND EVALUATION

- 7.1 Execution of the operation will be monitored through Bank's Country Office in El Salvador. Furthermore, 12 months after startup of program execution, a meeting will be held with the executing agency, the consultants, and the Bank to evaluate the results achieved during the preceding year, and plan the activities for the following year. Should there be any targets that have not been achieved or activities that have not been carried out, the reasons will be evaluated and appropriate corrective measures recommended, including additional tripartite meetings, with the executing agency agreeing to implement the recommendations during the following year.
- 7.2 Once the technical-cooperation operation has been completed, SEMA will include an evaluation of the activities conducted in its final report, which will also contain an evaluation of the performance of the consultants and of the work as a whole. Emphasis will be placed on problems encountered and the solutions found, and the relationship between the results obtained and those initially

proposed, explaining any disparity. In particular, attention will be drawn to actions taken by SEMA or which it intends to take in the light of the technical cooperation provided.

- 7.3 One year following completion of the technical-cooperation operations, SEMA will prepare and present to the Bank an ex post evaluation to show the results achieved during this period.
- 7.4 A project completion report will be prepared within three months after the last disbursement, following the Bank's guidelines in force in October 1992.

# PROGRAM EXECUTION CHART



OPERATIONAL REGULATION  
(Draft)

I. BACKGROUND

- 1.1 The Environmental Program of El Salvador is part of the Environmental Action Plan of the National Strategy for the Environment and the Government's strategy for National Reconstruction, and as such includes conducting activities aimed at improving the country's environmental conditions through a Support to Environmental Management component and an Upper Lempa River Basin Investment component. These activities have been selected as priorities for starting the program, for which there is IDB cofinancing through the loan entitled.../OC-ES "El Salvador Environmental Program" (PAES) and ATN/SF non-reimbursable parallel Technical Cooperation...., as well as the corresponding counterpart contributions of the Government of El Salvador (GOES).

II. OBJECTIVES OF THE REGULATION

- 2.1 The purpose of this regulation is to specify the operational procedures for carrying out the loan's activities, and it can only be modified by mutual consent between GOES and IDB.
- 2.2 This regulation will be adapted to the provisions of contract.... which the Republic of El Salvador has signed with IDB, according to which any discrepancy between the text of the contract and this regulation should be resolved in accordance with the terms of the contract.

III. DEFINITIONS

- 3.1 The following definitions are established for the purposes of the regulation:
  - a. Environmental Program of El Salvador (PAES): a program to support Environmental Management and Investments in the Upper Lempa River Basin, to be cofinanced by IDB through Technical Cooperation.... and loan...., respectively.
  - b. Bank: Inter-American Development Bank (IDB).

- c. Basin: A geographic area whose natural water resources come entirely from rainfall and whose discharges in water or solid materials carried by the water form an outlet at a single point. This corresponds to the definition of a hydrographic basin or surface hydrographic basin.
- d. Upper basin of the Lempa River: that part of the basin in the Republic of El Salvador above the Cerrón Grande reservoir having an area of 5,400 km<sup>2</sup>.
- e. Directorate General of Renewable Natural Resources (DGRNR): the unit responsible for carrying out the Upper Lempa River Basin Investment component.
- f. Project Coordinating Office (OCP): the unit supporting DGRNR/UEC in the administrative and financial management of the loan and on-going managerial follow-up of the Upper Lempa River Basin Investment component.
- g. Environmental Fund of El Salvador (FONAES): The agency responsible for raising funds and their administration, financing of plans, programs, projects, and any activities for the protection, preservation, and improvement of natural resources and the environment in conformity with the priorities established in the National Strategy for the Environment.
- h. Executive Secretariat of the Environment (SEMA): the unit promoting and coordinating environmental management and responsible for preparing, conducting, and fulfilling the National Strategy for the Environment.
- i. Executive Technical Cooperation Unit (UECT): the executing unit directly responsible for the Environmental Management Support component. It will be located in SEMA.
- j. Executive Investment Component Unit (UEC): the executing unit directly responsible for the Upper Lempa River Basin investment component. It will be located in the Directorate General of Renewable Natural Resources (DGRNR) and will be supported administratively by the Project Coordinating Office (OCP) in the Ministry of Agriculture and Livestock (MAG).
- k. Project Operational Units (UOPs): the units responsible for overseeing execution of the activities of the project's principal components in the field. They will belong to the extension services contracting agency and will have a supervisor provided by the UEC.
- l. Coordinating Committee: a committee composed of the Executive Director of SEMA, the Director General of DGRNR, and

representatives from ANDA, CEL, and MICDES to coordinate the PAES activities of the Government's agencies.

- m. Contracting Agency (EC): the consulting firm, NGO, or specialized agency that will be contracted to carry on the extension and technical assistance activities of the Soil and Agroforestry Conservation subcomponent.

#### IV. COMPONENTS AND ACTIVITIES OF THE LOAN

- 4.1 Execution of the loan includes the following components and activities:

- A. Investments in the Upper Lempa River Basin

- 1. Soil and Agroforestry Conservation
  - a. Formulation of the Annual Operations Plan.
  - b. Selection of the consulting agencies to conduct activities pertaining to promotion and organization of farmers; training of extensionists and farmers; and extension and technical assistance service to farmers.
  - c. Signing of an agreement with FONAES on financial administration of the incentives program, which includes provisions for use of the interest generated by the transferred funds.
  - d. Preparation of guidelines on the operating procedures of the incentives program, including information about refunds for use by users and community organizations.
  - e. Training of extensionists and demonstration producers.
  - f. Formulation of participative rural diagnoses.
  - g. Promotion and organization of farmer groups and associations.
  - h. Training about the importance of the commodity perspective in rural development projects.
  - i. Planning of activities at the production unit level according to the models proposed for producer groups and individuals.
  - j. Selection and establishment of demonstration farms.
  - k. Quantification of labor and inputs for carrying out project activities in order to allocate incentives.



1. Demonstrations of methods.
- m. Field days.
- n. Execution of conservation works.
- o. Supervision and inspection of project execution.
- p. Maintenance of conservation works.
- q. Progress and final reports.
2. Protected Areas
  - a. Formulation of the Annual Operations Plan.
  - b. Selection and contracting of construction firms to build civil works.
  - c. Execution of the activities planned in the subcomponent.
  - d. Supervision and inspection of the execution of activities.
  - e. Maintenance of works.
  - f. Progress and final reports.
3. Monitoring of Water Resources
  - a. Formulation of the Annual Operations Plan.
  - b. Selection and contracting of consulting firms to build civil works to rehabilitate the hydrometric network and the bathymetric survey and topography around the reservoir.
  - c. Purchase and installation of equipment.
  - d. Preparation and execution of the equipment maintenance plan.
  - e. Execution of proposed activities.
  - f. Supervision and inspection of the execution of activities.
  - g. Maintenance of works built.
  - h. Preparation of progress and final reports.

## V. EXECUTING AGENCIES

- 5.1 The PAES will be carried out through the executing agencies SEMA and DGRNR of MAG. SEMA will be responsible for the environmental management support component. DGRNR will carry out the Upper Lempa River Basin Investment component. Coordination between the Government's agencies will be carried out by the Coordinating Committee.

### A. SEMA's activities and duties

1. To serve on the PAES Coordinating Committee.
2. To create and appoint the staff of UECT.
3. To exercise administrative coordination with the Bank of technical cooperation.
4. To draw up and sign agreements with MAG and the agencies taking part in the Environmental Management Support component.
5. To provide follow-up of the Environmental Management Support component.
6. To coordinate the activities of the Environmental Management Support component with those of IDB's ATN/SF-43346-ES technical cooperation and AID's PROMESA project.

### B. DGRNR's activities and duties

1. To serve on the PAES Coordinating Committee.
2. To ensure that the objectives and functions of the Upper Lempa River Basin Investment component are fulfilled.
3. To create and appoint UEC's staff and appoint supervisors of the UOPs.
4. To carry out administrative coordination with OCP.
5. To coordinate the operations of its various organizational units to fulfill the objectives of the component.
6. To prepare the bases of and develop methods for bidding and award contracts to consulting firms or NGOs to carry out programming and follow-up activities, soil and agroforestry conservation, protected areas, and monitoring of water resources; or any other purchase to conduct the activities of the Upper Lempa River Basin Investment component.

7. Prepare institutional mechanisms for directly carrying out activities to monitor water resources and the geographic information system (SGT) through its Divisions of Meteorology and Water Resources, which includes the Environmental Laboratory, and Renewable Natural Resources.
8. Draw up and sign an agreement with the Lempa River Hydroelectric Executive Commission (CEL) to carry out the operational activities of the basic hydrometric and bathymetric network to monitor the Cerrón Grande reservoir.
9. Prepare and sign an agreement with FONAES on the operation of the incentives program.
10. Approve working plans and annual budgets to carry out the activities of the investment component.
11. Oversee the component administratively and budgetarily.
12. Conduct technical supervision of the progress of the operational plans.
13. Account for expenses associated with the component.
14. Supervise contractor organizations.
15. Supervise control mechanisms and delivery of incentives.
16. Coordinate financial control of incentives with FONAES.
17. Guarantee fulfillment of all contractual conditions of the loan.
18. Guarantee fulfillment of the agreements signed with the component's participating or beneficiary state and/or private agencies.
19. Carry out administrative coordination with the Bank of the component's execution, with OCP support.
20. Draw up and sign an agreement with FONAES on managing the incentives.
21. Deal with and support IDB missions.

C. Activities and duties of the Coordinating Committee

1. Coordinate PAES activities between SEMA, MAG, and other Government agencies participating in or benefitting from the Program (SANAM, MOP, CEL, Environmental *Fiscalía*, ANDA, ISDEM,

IGN, the Ministry of Health Laboratory, and MAG's Environmental Laboratory.

2. Ensure that the goals and objectives of the PAES are accomplished.

D. OCP's activities and duties

1. Support the component's administrative and financial management.
2. Collaborate with DGRNR in managerial activities.

E. Staff of the Executing Units included as counterpart of the loan

a. Basin Executing Unit (UEC) in DGRNR

<u>Central Unit</u>	<u>Number</u>
General coordinator	1
Administrator	2
Technical aide	1
<u>Field Unit</u>	
Soil conservation coordinator	1
Technical assistant	1
Monitoring coordinator	1
Technical aide	1
<u>Decentralized level (UOPs)</u>	
Supervisors	6

- 5.2 The Government's counterpart resources corresponding to the loan will also finance the following incremental MAG staff: (i) the surveillance staff required for the protected areas of Montecristo (6 foresters) and San Diego La Barra (1 watchman and 6 foresters); (ii) the staff required for operation of the hydrometric and water quality network (3 water measurers, 3 assistants, and 55 scale-reading day workers) and the MAG Environmental Laboratory (1 chemist, 2 assistants, and 1 systems analyst); and (iii) the staff required for the SIG in MAG (1 systems analyst and 1 cartographer/programmer).
- 5.3 In addition to the foregoing, DGRNR will provide the staff and logistical support required to operate the hydrometric and water quality network, the Environmental Laboratory, SIG, and the Montecristo National Park. The Agreement with CEL will also ensure that the latter agency provides the staff and logistical support required for bathymetry of the Cerrón Grande reservoir.

5.4 A description of the occupational profiles required for the various previously defined posts in the UEC is given below:

1. Profile of the general coordinator (1)

- a. Will be responsible for execution of the loan.
- b. Graduate of an accredited university with a degree in agricultural engineering or natural resources or specialization aimed at preparing and evaluating environmental projects, rural development, or basin management.
- c. Having postgraduate study in some of the following specialties: planning, project preparation and control, rural development, use of natural resources.
- d. With at least eight years of experience in administering natural resources projects with continuous responsibility in planning works or their equivalent in terms of postgraduate courses.
- e. Broad knowledge of the principles and methods of environmental planning, rural development and organization, and extension, surveillance, and control programs.
- f. Experience in staff coordination and supervision.
- g. Knowledge of modern managerial skills and methods, including information management and processing.
- h. General knowledge of Salvadoran environmental legislation.
- i. Skill in negotiating and dealing satisfactorily with senior public and private officials.
- j. An overall view in analyzing complex situations and making decisions in a rational and timely manner.
- k. Skill in directing, coordinating, and supervising the work of support, technical, and professional staff.
- l. Skill in drawing up agreements and evaluating very complex technical reports.
- m. Capacity to interact in multidisciplinary groups.

2. Profile of the UEC technical assistant (1)

- a. Graduate of an accredited university with a degree in agricultural, forestry, environmental, or biological engineering or a related course of study.

- b. At least five years of continuous experience in coordinating agricultural, forestry, and environmental projects.
- c. Knowledge of the design and execution of rural development and/or basin management works and programs.
- d. Knowledge of how to administer management information systems.
- e. General knowledge of systems, administrative procedures, and economic and financial analyses.
- f. Training in the principles and methods of environmental, rural development, and basin management projects.
- g. Analytic and synthetic capacity.
- h. Skill in evaluating and interpreting technical reports.

3. Profile of the UEC administrator (2)

- a. A graduate professional in the areas of business management, economics, or public accounting, or related fields.
- b. At least five years of continuous experience in budget formulation, execution, evaluation, and control.
- c. Skill in analyzing and organizing financial information.
- d. Broad knowledge of the legal standards governing the accounting system.
- e. Skill in establishing schedules of financial data, facts, and reports and formulating effective recommendations.
- f. Good knowledge and mastery of accounting packages.
- g. Knowledge of bookkeeping.

4. Profile of the technical aides (2)

- a. Computer technician with mastery of application programs (word processors and spreadsheets).
- b. At least three years of continuous experience in administrative work.
- c. Good knowledge of methods of and procedures for administering personnel, budgets, and purchasing.
- d. Skill in using calculating machines.

- e. Good knowledge of office methods and practices.
  - f. Skill in dealing courteously and effectively with officials and the public in general.
  - g. Skill in following oral and written instructions.
5. Profile of UOP supervisors (6)
- a. Graduate of an accredited university with a degree in forestry or agricultural engineering.
  - b. At least five years of experience in basin management and demonstrated experience in soil conservation and the design and construction of erosion control works, agroforestry methods, and the transfer of conservation technology kits.
  - c. Extensive knowledge of the principles, techniques, and practices of agricultural and agroforestry engineering.
  - d. Experience in administering and coordinating extension programs.
  - e. Knowledge of administrative systems and procedures.
  - f. Skill in effectively coordinating and negotiating with public and private agencies and peasant and producer groups.
6. Profile of the UEC soil conservation coordinator (1):
- a. Graduate in agricultural engineering or a related field specializing in soil conservation.
  - b. At least eight years of experience in basin management and demonstrated experience in soil conservation, design and construction of erosion control works, agroforestry methods, and transfer of conservation technology kits.
  - c. Experience in coordinating and administering extension programs.
  - d. Skill in directing, coordinating, and supervising the work of professional, technical, and support staff.
  - e. Skill in effectively coordinating and negotiating with public and private agencies and peasant and producer groups.
  - f. Capacity to interact in multidisciplinary groups.

7. Profile of the UEC water resources monitoring coordinator (1):
  - a. A graduate professional in engineering sciences (civil, chemical, or agricultural) specializing in hydrology or related sciences.
  - b. At least five years of experience in project management and staff coordination and supervision.
  - c. Broad knowledge of the evaluation of hydrologic parameters and water quality, and their relationship with natural resources.
  - d. Skill in negotiating and dealing with multidisciplinary groups.
  - e. Skill in establishing schedules of other technical data, facts, and reports and formulating effective recommendations.

## VI. PROCEDURES

### A. Selecting and contracting UEC staff

1. Appointing the UEC General Coordinator will be the responsibility of DGRNR, which will choose a person who meets the requirements established in the terms of reference through open competition.
2. Selecting and contracting UEC professionals will be the responsibility of the General Coordinator through open competition, using DGRNR's guidelines. The initial appointment will be for one year and the final one according to demonstrated performance by the coordinators of the various UE, in coordination with SEMA and DGRNR.

### B. Purchase of equipment, vehicles, furniture, and supplies

- 6.1 This will be done according to the pertinent standards established by IDB. Purchases will be made according to the bidding and contracts schedule agreed to with the Bank.

### C. Bidding for construction of civil works

- 6.2 This will be done according to the pertinent standards established by IDB. Purchases will be made according to the schedule of bidding on civil works agreed to with the Bank.



- D. Selection and contracting of agencies providing technical assistance to producers, promotion and organization services, training services, and consulting firms and/or individual experts
- 6.3 This will be done according to the standards established by IDB in accordance with the contracting schedule agreed to with the Bank.
- E. Selection of the beneficiaries of the Soil Conservation and Agroforestry subcomponent
1. Selection criteria
    - a. Must live in the area of activity of the PAES Soil Conservation and Agroforestry subcomponent, and must have established land tenancy status (owners, tenants or leasees with specific agreements with the owners of the land).
    - b. In any of the forms of tenancy described above, must have a farm no larger than 3 ha in size.
    - c. Must be willing to perform the technological change activities and have a clear desire to join the conservation program voluntarily.
    - d. With an extensionist's support, must be willing to formulate the technology change work plan and improve the farm, taking into account its needs and the characteristics of the property.
    - e. Must be willing to participate in the program's extension and training activities by allowing entry to his farm.
    - f. Must be willing to allow and take part in monitoring of the farm with the extensionist during periodic technical assistance visits.
    - g. Must be willing, from the third year of participation and over no more than eight years, to repay 80% of the incentive received to the producers' associations promoted by the Program.
  2. Selection of beneficiaries
    - a. The selection of beneficiaries will be conducted on the basis of participative and diagnostic planning workshops, with participation by extensionists and grassroots organizations of farmers themselves.

F. Methods for providing incentives to the beneficiaries of the Soil Conservation and Agroforestry subcomponent

6.4 The assignment and delivery of incentives to the beneficiaries includes the following:

1. Provision of funds to the country and management

- a. IDB will make disbursements and transmit U.S. dollars to the Central Reserve Bank (BCR), which will convert them into colons.
- b. The BCR will allocate and transmit to FONAES the equivalent in colons to cover the costs of carrying out the annual regional incentive plans (PARI); the interest generated by these funds may be used for the incentives' administrative costs; any surplus will be reinvested in the Program.
- c. Through the banking system and with UEC authorization, FONAES will transmit the funds to the Regional Operating Units (UOPs) of the contracting agency to implement their respective PARI.
- d. A UOP will issue a purchase order for materials and inputs for delivery to the beneficiaries. If the Beneficiary Operating Plan (POB) indicates the allocation of an amount in cash, the UOP will transmit it to the beneficiary.

2. Annual regional incentive plan (PARI)

- a. The PARI is composed of the consolidated annual operating plans of the beneficiaries in the region. The extensionist, together with individual farmers, works out annual operating plans to improve a farm (POB), including requirements for incentives and their structure (cash and kind).
- b. The contracting agency will consolidate the POBs by region and will prepare the related PARI, which it will submit to the UEC for consideration.
- c. The UEC will examine and approve the PARI and issue orders to allocate resources to FONAES, which will deliver them to the EC in the regions.

3. Execution of the POB

- a. On receiving an incentive, a beneficiary will, with the extensionist's technical support, carry out the planned program to improve his farm in accordance with the POB.

## VII. LOCAL ORGANIZATION

- 7.1 The Regional Operating Units (UOPs) will administer the Program's operational funds locally. They are responsible for consolidating the Annual Regional Incentive Plans (PARI), consisting of the Beneficiaries' Operating Plans (POB) of the associations of small and medium farmers or individuals. The POBs are worked out between extensionists and farmers and include the amount and nature of the incentives.
- 7.2 Through their extension programs, the regional UOPs will help existing associations (with 16% of the beneficiaries in the working area) join the program and will promote the organization of independent farmers' associations. Such associations, voluntary in participation and decentralized in nature, will be certified at the municipal level. They may be mixed, of one or the other sex, or specialize in promoting women according to the needs of the communities. The Program will promote and facilitate their certification, which will be completed during the first three years.
- 7.3 Existing associations of small and medium farmers or those promoted by the Program will, among other things, have the following functions in carrying out the Soil Conservation and Agroforestry subcomponent:
  - a. Promoting and coordinating in the field the participation of small and medium agricultural producers. For this they will have the Program's support through appropriate UOPs, which will assist them in obtaining the necessary legal recognition from their municipalities. With the POBs of the associated farmers they will form local PARIs.
  - b. Sign contracts with farmers to carry out conservation works, including repayment commitments to the association in not more than eight years (in kind or money, as the farmer wishes) of up to 80% of the amount of support received to set them up. The associations themselves will prepare the appropriate regulations.
  - c. During the first two years, with the support of the appropriate UOP and later charged to the revolving funds or other operating funds, to train and provide technical assistance to the beneficiaries to draw up farm improvement and operating plans, defining the inputs and support needed to establish conservation works.
  - d. Transact and recover the incentives awarded to beneficiaries according to the contract they sign with the association.

- e. Establish a revolving fund from the amounts recovered to provide technical assistance, finance new areas of execution, and broaden the base of beneficiaries.
  - f. Ensure fulfillment by the local PARI of their responsibility and the contracts signed to carry out individual projects.
- 7.4 Establishment of the obligation to return to the association the equivalent of part of the incentive received seeks to create in the farmer a sense of responsibility and appreciation of the activities carried out and enable the continuation and widening of the program. It also seeks consolidation of the associations to ensure continuation of the program when external aid stops.
- 7.5 The existing associations will be selected according to the following criteria:
- a. Previous experience in agricultural work with small and medium farmers using participative planning and action methods and familiar with extension programs similar to the program's.
  - b. Having a basic administrative and technical structure that ensures execution of the program's activities.
  - c. Willing to assume the commitments and risks of partial recovery of incentives to small and medium farmers, and to organize revolving funds to broaden the coverage of technical assistance and service to new farmers.
  - d. In the case of the associations organized by the Program's UOPs, an attempt will be made to give them similar characteristics in the short term.
- 7.6 The associations will be able to receive voluntary contributions from their members to cover their administrative costs; they will organize revolving funds with contributions from beneficiaries, who will have the option of delivering them in money or kind. If delivered in kind, the association will ensure through its Oversight Council and technicians that the material received will be of the best possible quality; to do this, it will fix the minimum standards of quality of material to be received, as indicated at the end of this chapter.
- 7.7 The associations will seek to ensure beneficiaries marketing of their products as well as a search for new markets or alternative markets and other diversification options. Consolidation of its own system of administration will give an association an opportunity to be the beneficiary of other international development and assistance projects.

#### VIII. CONTROL AND FOLLOW-UP

##### A. Programming and follow-up

- 8.1 A programming and follow-up management system (SPS) will be implemented in the UEC during the first year of execution with help from a consulting firm.
- 8.2 The SPS will have data capture, processing, and information reports subsystems. Programming will be done annually and multiannually.
- 8.3 The responsibility of managerial levels, programming formats, content of reports, and their frequency are those agreed to with the Bank.

##### B. Inspection and monitoring

- 8.4 IDB will conduct inspection and monitoring through its representation in El Salvador. In addition to normal supervision by the representation, a review of the prevailing investment program and the work plan for the following year will be conducted each year. Pertinent measures to fulfill the following year's goals will be agreed on as a result of that review.

#### IX. RESTRICTIONS ON THE USE OF PAES RESOURCES

- 9.1 The loan's resources may not be used to finance debt cancellation, purchase of shares and/or bonds, securities, expenditures charged to investments already made which have not been agreed to previously with the Bank, or payment of taxes.
- 9.2 The loan's resources may not be used to finance land purchases or purchase and rehabilitation of buildings. This may be done with local counterpart resources as long as they are in the project's direct area of activity and are included in it.

## TENTATIVE PROCUREMENT PLAN

MAJOR PROCUREMENT	FINANCING	METHOD	PREQUAL.	SPN DATE
Consulting services to support SEMA in executing environmental management support component (TC associated with loan) 1 call for proposals Total value: US\$961,040	IDB (100%)	IPCP	Yes	I/96
Consulting services for programming and monitoring system (SPS) in executing unit (UEC) of DGRNR 1 call for proposals Total value: US\$334,000	IDB (100%)	IPCP	Yes	I/96
Extension and technical assistance services for soil conservation and agroforestry Up to 7 calls for proposals Total value: US\$11.2 million	IDB (100%)	IPCP	Yes	II/96
Training services for farmers 1 call for proposals Total value: US\$1.2 million	IDB (100%)	IPCP	Yes	II/96
Farmer promotion and organization services 1 call for proposals Total value: US\$648,800	IDB (100%)	IPCP	Yes	II/96
Advisory assistance and other studies - hydro and bathymetric US\$100,000 - laboratories US\$65,000/ US\$5,000 - protected areas US\$445,000 - legal US\$5,000 4 calls for proposals Total value: US\$620,000	IDB (100%)	LCP	No	I/97
		LCP	No	II/96
		IPCP	Yes	I/97
		LCP	No	I/96

MAJOR PROCUREMENT	FINANCING	METHOD	PREQUAL.	SPN DATE
<b>Works:</b> - repair of hydrometric system US\$210,000 - geodesic control system, Cerrón Grande dam US\$40,000 - installations in protected areas (3 tender calls) • Montecristo US\$177,000 • San Diego La Barra US\$76,000 • Joya de Ceren US\$207,000 Total: 5 tender calls Total value: US\$710,000	IDB (100%)	LB  LB  LB  LB LB	No  No  No  No No	II/96  II/96  II/96  II/96 II/96
<b>Equipment and vehicles for TC and loan (L)</b> - hydrological equipment (L) US\$260,000 - laboratory equipment (L) 3 tender calls US\$1,050,000 - bathymetric equipment (L) US\$60,000 - office equipment (L) US\$45,000 - 4WD vehicles (1 TC, 8 L) (2 tender calls) US\$23,000 and US\$186,000 - equipment for GIS, SIA and SEIA (L and TC) 2 tender calls US\$90,000 and US\$181,000 - digital mapping equipment (TC) US\$75,000 - miscellaneous equipment (TC) US\$10,870 12 tender calls Total value: US\$1,981,670	IDB (100%)	ICB  ICB  LB  LB  LB  LB  LB LB LB	Yes  Yes  Yes  Yes  Yes  Yes  Yes Yes No	II/96  II/96  II/96  I/96  I/96  I/96  I/96 I/96 I/96
ICB = International competitive bidding LB = Local bidding IPCP = International public call for proposals LCP = Local call for proposals				

No deviation from the Bank's procurement policy is proposed. The procedures to govern the contracting of works and the procurement of goods and services will be those of the Bank. International bidding will

be used for the procurement of goods in excess of US\$250,000 and works in excess of US\$1 million. International calls for proposals will be issued for consulting services in excess of US\$200,000.

Calls for proposals and tenders for amounts below these thresholds shall take place as follows:

- (a) Unrestricted local bidding or call for proposals:
  - Goods: US\$150,000 to US\$249,999;
  - Works and/or installations: US\$500,000 to US\$999,999;
  - Consulting services: US\$100,000 to US\$199,999.
- (b) Private local bidding:
  - Goods: Amounts below US\$150,000;
  - Works and/or installations: Amounts below US\$500,000;
  - Consulting services: Amounts below US\$100,000.
- (c) Under no circumstances may provisions or stipulations be established that would restrict or prevent the participation of consultants, suppliers, or contractors from the Bank's member countries.

In applying the foregoing, the following ad hoc procedures shall be followed:



**AD HOC PROCEDURES FOR THE CONTRACTING OF MINOR WORKS,  
PROCUREMENT OF MINOR GOODS, AND HIRING OF MINOR CONSULTING SERVICES**

**1. PURPOSE**

The purpose of this annex is to establish the procedures to be adopted by the executing unit (UE) for the procurement of minor goods, contracting of minor works, and hiring of minor consulting services for projects financed with the program funds.

Application of the aforesaid special procedures shall be mandatory in all such cases.

**2. DEFINITIONS**

- a. Minor works mean those executed under projects for the program with an estimated value of up to US\$1 million equivalent. If the Bank should change this amount subsequently, the new value will be used, and the procedures outlined here will apply to works valued at equal to or less than the adjusted amount.
- b. Minor goods mean those having an estimated value of up to US\$250,000 equivalent. If the Bank should change this amount subsequently, the new value will be used, and the procedures outlined here will apply to goods valued at equal to or less than the adjusted amount.
- c. Minor consulting services mean those having an estimated value of up to US\$200,000 equivalent. If the Bank should change this amount subsequently, the new value will be used, and the procedures outlined here will apply to consulting services valued at equal to or less than the adjusted amount.

**3. APPLICABLE PROCEDURES**

- a. For the contracting of minor works:
  - i. The contracting of minor works or installations having an estimated value of up to US\$500,000 equivalent shall take place by the ad hoc private bidding procedure set forth in point 4 of this annex.
  - ii. The contracting of minor works or installations having an estimated value of between US\$500,000 and US\$999,999 equivalent shall take place by the ad hoc unrestricted local public bidding procedure set forth in point 5 of this annex.
- b. For the procurement of minor goods:

- i. The procurement of goods having an estimated value of up to US\$150,000 equivalent shall take place by the ad hoc private bidding procedure set forth in point 4 of this annex.
  - ii. The procurement of goods having an estimated value of between US\$150,000 and US\$249,999 shall take place by the ad hoc unrestricted local public bidding procedure set forth in point 5 of this annex.
- c. For the hiring of minor consulting services:
- i. The hiring of minor consulting services having an estimated value of up to US\$100,000 equivalent shall take place by the ad hoc private prequalification procedure set forth in point 6 of this annex.
  - ii. The hiring of minor consulting services having an estimated value of between US\$100,000 and US\$199,999 shall take place by the ad hoc unrestricted local public bidding procedure set forth in point 7 of this annex.

#### 4. AD HOC PRIVATE BIDDING

The ad hoc private bidding procedure described below shall govern the categories of minor works and goods defined in paragraphs 3.a.1 and 3.b.1, respectively:

- a. In applying the ad hoc private bidding procedure, at least five bidders shall be invited to participate, with deadlines for the submission of bids that promote competition. Prequalification shall not be necessary unless the Bank expressly requires it because the works or procurement, in its view, are complex in nature. It is understood that by way of prequalification the tendering entity may reach an agreement with the Bank on a system of registering companies, which may include both natural and juridical persons. If such rosters are set up, they shall remain open for registration for any procurement included under the program.
- b. The standard bidding documents to be agreed upon by the UE and the Bank shall be used in this procedure.
- c. In applying this procedure, the tendering entity shall prepare and forward to the firms invited to participate the tender conditions and technical specifications for the works to be contracted or goods to be procured.
- d. Within three business days after the deadline for submission of bids, the Contracts Committee of the tendering entity shall award the contract to the lowest bidder, as defined in paragraph 3.13 of Annex B to the contract, or shall declare the competition null and

void, in which case it may reopen it, making any necessary adjustments or changes to the conditions, within the following 20 days, inviting at least three companies to participate in addition to those having participated in the competition. All the conditions established for this procedure shall continue to apply if the competition is reopened.

- e. Once the contract has been awarded, and before the contract is signed, the tendering entity shall obtain a statement of nonobjection from the Bank.

#### 5. AD HOC UNRESTRICTED LOCAL PUBLIC BIDDING

The ad hoc unrestricted local public bidding described below shall apply to categories of minor works and goods defined in paragraphs 3.a.ii and 3.b.ii, respectively.

- a. The ad hoc unrestricted local public bidding system shall be accompanied by national publicity. The unrestricted participation of companies from the Bank's member countries shall be permitted. Prequalification shall not be necessary unless the Bank expressly requires it because the works or procurement, in its view, are complex in nature. It is understood that by way of prequalification the tendering entity may reach an agreement with the Bank on a system of registering companies, which may include both natural and juridical persons. If such rosters are set up, they shall remain open for registration for any procurement included under the program.
- b. The standard tender documents to be agreed upon by the UE and the Bank shall be used in this procedure.
- c. In local publicity, tender calls shall be published on two occasions in one newspaper or once only in two newspapers, in both cases newspapers with wide national circulation. The deadline for submission of bids shall be at least 30 calendar days after publication of the last notice. The deadline may be set later, at the discretion of the tendering entity, when warranted by the size or complexity of the works to be contracted or the amount of the goods to be procured.

The bids shall be submitted in a single envelope which is to contain the bid per se, along with legal, technical and financial background information on the participants. The envelopes containing the bids shall be opened in a public ceremony held by the Contracts Committee on the date and at the time set in the deadline for submission of the bids, in the presence of the bidders in attendance and in compliance with all requirements to ensure transparency established in the standard tender conditions. At the same session the Committee shall set up a technical committee with three members to perform a legal, technical and economic analysis

of the bids. The committee shall submit a report within 10 business days including any comparative tables that may be necessary.

- e. The contract shall be awarded to the lowest bidder, as defined in paragraph 3.13 of Annex B to the contract. In so doing, a single technical committee shall first evaluate the bids to determine whether they are in compliance with the tender documents, and shall establish a range commencing with the bid evaluated as the lowest. The committee shall then analyze the legal, technical and financial documents for the lowest bidder, in order to determine whether they are in compliance with the requirements. If so, the contract shall be preawarded to the company. Otherwise, the background documents and requirements for the following company shall be examined, and so on.
- f. The technical report on the proposed contract award, together with the applicable supporting documents (including the proposed draft contract), will be forwarded simultaneously to the Bank for approval. Once these requirements have been met and formal approval has been obtained from the UE and the Bank, the final contract award and subsequent signing of the contract with the successful bidder shall take place. No substantial change may be made in the draft contract approved by the Bank.
- g. Different procedures or approaches other than those agreed upon here may be applied by common agreement with the Bank in the case of contracts for minor works or goods to be awarded as a result of events that qualify as natural disasters according to the Bank's policies.

#### 6. AD HOC PRIVATE PREQUALIFICATION

The ad hoc private prequalification procedure described below shall apply to the contracting of consulting services defined in paragraph 3.c.i.

- a. In applying the private ad hoc prequalification procedure, at least three but not more than six bidders shall be invited to participate, with deadlines for the submission of bids that promote competition. To this end, the tendering entity may reach an agreement with the Bank on a system of prequalifying or registering companies. If such rosters are set up, they shall remain open for registration for any procurement included under the program.
- b. If possible, the standard tender documents to be agreed upon by the UE and the Bank shall be used in this procedure.
- c. In applying this procedure, the tendering entity shall prepare and forward to the firms invited to participate the tender conditions and the terms of reference (TOR) for the consulting services.

- d. The bids shall be submitted in two different envelopes which, for the purposes of these procedures, shall be called envelopes 1 and 2. Envelope 1 shall contain the technical bid, along with the legal background and documents attesting to the bidder's technical and financial soundness. Envelope 2 shall contain the financial bid. This form of presentation shall be explained clearly in the tender documents.
- e. In the presence of the UE Contracts Committee, all the envelopes 1 shall be opened, i.e., those containing the technical bids and legal and financial information on the bidders. Subsequently, within 10 calendar days after the opening of the envelopes 1, the Contracts Committee shall rank the technical bids in order of merit and call upon the representatives of the firm ranked first to negotiate the contract, all in accordance with the stipulations of Annex C to the loan contract.
- f. The technical report on the proposed contract award, together with the applicable supporting documents (including the proposed draft contract), shall be forwarded simultaneously to the Bank for approval.
- g. Once the contract negotiations are complete and a statement of nonobjection has been obtained from the Bank, the tendering entity may proceed with contract signing.

**7. AD HOC UNRESTRICTED LOCAL PUBLIC PREQUALIFICATION**

The ad hoc unrestricted local public prequalification procedure described below shall apply to the categories of minor consulting services defined in paragraph 3.c.ii.

- a. In the application of the ad hoc unrestricted local public prequalification procedure, the call for the submission of technical and financial bids shall be published once in two newspapers or on two occasions in one newspaper, in both cases newspapers with wide national circulation. The deadlines for submission of bids shall be set so as to ensure broad participation of companies and thus guarantee competition.
- b. If possible, the standard tender documents to be agreed upon by the UE and the Bank shall be used in this procedure.
- c. The last notice of the call for proposals shall be published at least 20 days before the deadline set for the submission of bids. This deadline may be extended when warranted by the size or complexity of the study.
- d. The bids shall be submitted in two different envelopes which, for the purposes of these procedures, shall be called envelopes 1 and 2. Envelope 1 shall contain the technical bid, along with the

legal background and documents attesting to the bidder's technical and financial soundness. Envelope 2 shall contain the financial bid. This form of presentation shall be explained clearly in the tender documents.

- e. In the presence of the UE Contracts Committee, all the envelopes 1 shall be opened, i.e., those containing the technical bids and legal and financial information on the bidders. Subsequently, within 10 calendar days after the opening of the envelopes 1, the Contracts Committee shall rank the technical bids in order of merit and call upon the representatives of the firm ranked first in order to negotiate the contract, all in accordance with the stipulations of Annex C to the loan contract.
- f. The technical report on the proposed contract award, together with the applicable supporting documents (including the proposed draft contract), shall be forwarded simultaneously to the Bank for approval.
- g. Once the contract negotiations are complete and a statement of nonobjection has been obtained from the Bank, the tendering entity may proceed with contract signing.

#### **8. CONTRACTS COMMITTEE**

The ad hoc private bidding, ad hoc unrestricted public bidding, ad hoc private call for proposals, and ad hoc unrestricted local public prequalification procedures shall be arranged by a UE Contracts Committee in accordance with the rules agreed upon by it and the Bank.

PROPOSED RESOLUTION

EL SALVADOR. LOAN No. \_\_\_\_/OC-ES. TO THE REPUBLICA DE EL SALVADOR  
(National Environmental Program)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf the Bank, to enter into such contract or contracts as may be necessary with the República de El Salvador, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a national environmental program. Such financing shall be for the amount of up to US\$30,000,000, or its equivalent of in other currencies, except that of El Salvador, which are part of the Ordinary Capital resources of the Bank, and it shall be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.

PROPOSED RESOLUTION

EL SALVADOR. PARTIAL PAYMENT OF INTEREST ON LOAN NO. \_\_\_\_/OC-ES  
TO THE REPUBLICA DE EL SALVADOR FOR THE NATIONAL  
ENVIRONMENTAL PROGRAM

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, as administrator of the Intermediate Financing Facility Account, hereinafter referred to as the "account", to enter into such contract or contracts as may be necessary with the República de El Salvador, as Borrower, and to adopt other pertinent measures to use the resources of the account to pay a part of the interest due by the Borrower on outstanding balances of the loan authorized by Resolution DE- /94, for financing part of the cost of the National Environmental Program, hereinafter referred to as the "approved loan." Such part shall represent up to 5% per annum on the outstanding balances of the loan.

2. That the Bank shall charge to the account the amounts due by the Borrower and to be paid by the account, in the currencies designated by the Bank and available in the account, on the dates specified for the payment of interest or on the date or dates the Bank receives the payment of the remainder of the interest owed by the Borrower, hereinafter referred to as the "remainder". Should the Borrower not have paid on the date due the remainder, as well as any payment of principal or fees, the Bank shall withhold payment of the amount of interest authorized to be paid from the account to the Bank. In such event, the Borrower shall remain liable for the total amount of the interest due and owed until such time as the Bank has received payment of the remainder and of the respective amounts for amortization and fees.

3. That to the extent that the Bank receives payments from the account for interest on the approved loan, the Borrower shall not be liable for the payment of such amounts and, consequently, it shall not be obligated to repay to the Bank any amounts of interest paid from the account to the Bank.



4. That the Borrower may decide to pay the whole amount of the interest accrued on the outstanding balances of the approved loan either during the effectiveness of the loan or only during the amortization period of said loan. In both cases the Bank shall, as soon as possible, reimburse the country for interest paid to the Bank and which may be charged to the account in accordance with Clauses 1 and 2 above.

5. That to the extent that the Bank determines that there are not sufficient resources available in the account for making the payments referred to in Sections 2 and 4 above, the Borrower shall pay the interest due on the dates and the amounts specified in the loan contract, up to the full amount accrued on the outstanding balance of the approved loan without any obligation for reimbursement by the Bank.

PROPOSED RESOLUTION

EL SALVADOR. NONREIMBURSABLE TECHNICAL COOPERATION FOR  
STRENGTHENING ENVIRONMENTAL MANAGEMENT IN EL SALVADOR

The Board of Executive Directors

RESOLVES:

1. 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 agreements as may be necessary and to adopt such other measures as may be pertinent for the execution of the plan of operations referred to in Document AT-\_\_\_\_\_ with respect to a technical cooperation with the República de El Salvador for a program to strengthen environmental management.

2. That up to the sum of US\$1,600,000, or its equivalent, is authorized for the purposes of this resolution, chargeable to the net income of the Fund for Special Operations.

3. That the above mentioned sum is to be provided on a nonreimbursable basis.