

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

ECUADOR

COASTAL RESOURCES MANAGEMENT PROJECT, PHASE II

(EC-0193)

LOAN PROPOSAL

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BASIC SOCIOECONOMIC DATA

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

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

INFORMATION AVAILABLE IN THE RE3/RE3 TECHNICAL FILES

Preparation:

1. Midterm evaluation of PMRC I. *Carl Bro International*. Ecuador 1999.
2. Assessment of the Governance Capacity of Ecuador's Coastal Program. *Coastal Resources Center - University of Rhode Island*. Rhode Island 2000.
3. Lessons Learned. Evaluation of the Coastal Resources Management Program - Phase I. *Vlad M. Kaczynski et al.* University of Washington, Seattle, WA 2001.
4. Draft Operating Regulations.
5. Annual operating plan for year one (AOP 1).
6. Terms of reference for the technical cooperation to perform feasibility studies for the second phase of the project.
7. Consultant's report on institutional aspects of PMRC II. *Pablo Salazar Canelos*. Ecuador 2002.
8. PMRC environmental sanitation study. *Pedro Vásconez and Walter Bajaña*. Ecuador 2002.
9. Evaluation of the annual operating plan for 2002. *Executive Directorate of the PMRC*. Ecuador 2003.
10. Analysis and evaluation of PMRC investment projects. *University of Rhode Island*. Rhode Island 2000.
11. Observations of the Coastal Resources Management Program—Phase I and General Suggestions for Phase II. *Patrick Christie, School of Marine Affairs University of Washington*. Seattle 2001.

ABBREVIATIONS

AOP	Annual Operating Plan
CESI/TRG	Technical Review Group of the Committee on Environment and Social Impact
CNMRC	Comisión Nacional de Manejo de Recursos Costeros [National Coastal Resources Management Commission]
CP	Country paper
CSU	Conservation and surveillance unit
DE	PMRC Executive Directorate
ESPOL	Escuela Politécnica del Litoral [Coastal Polytechnic School]
ICM	Integrated coastal management
IFF	Intermediate Financing Facility
MAE	Ministerio del Ambiente de Ecuador [Ministry of the Environment]
MEMU	Municipal Environmental Management Unit
ORs	Operating Regulations
PMRC	Programa de Manejo de Recursos Costeros [Coastal Resources Management Program]
PRAGUAS	Proyecto de Agua Potable del Banco Mundial [World Bank Potable Water Project]
Project I	Support for the Coastal Resources Management Program, Phase I
Project II	Support for the Coastal Resources Management Program, Phase II
REMACAM	Reserva de Manglar Cayapas-Mataje [Cayapas-Mataje Mangrove Reserve]
SMZ	Special management zone
TS	Technical Secretariat
USAID	United States Agency for International Development
ZC	Zone committee



Inter-American Development Bank
Regional Operations Support Office
Operational Information Unit

Ecuador

Tentative Lending Program

2004

Project Number	Project Name	IDB US\$ Millions	Status
<u>EC0193</u>	Coastal Resource Management Project - Stage II	12.4	
<u>EC0101</u>	Strengthening of the Seguro Social Campesino	5.0	
<u>*EC1002</u>	Banco Pichincha Trade Finance Facility	20.0	
<u>*EC0208</u>	Interagua (Guayaquil Water and Sanitation Project)	28.0	
<u>EC1010</u>	Public Bank Reform Support	5.0	
<u>EC1006</u>	Rehabilitation of Historical Downtown Quito, Second Stage	8.0	
<u>EC1004</u>	Competitiveness Enhancement Sector Loan	80.0	
<u>EC1011</u>	Justice Sector Program	10.0	
<u>*EC1005</u>	Quito International Airport	75.0	
<u>*EC1015</u>	Banco de Guayaquil Trade Finance Facility	12.0	
<u>EC1012</u>	Natural Disasters prevention	N/A	
Total - A : 11 Projects		255.4	
<u>EC1003</u>	Prevention and early warning - Cotopaxi volcano	5.0	
<u>EC1007</u>	Support Services for Development Rural Business	15.0	
<u>*EC0214</u>	Pichincha Bank Mortgage Bond	18.0	
<u>EC1008</u>	Potable Water Program for Intermediate Cities	N/A	
<u>EC1014</u>	Rural Development and Agricultural Sanitation program	N/A	
Total - B : 5 Projects		38.0	
TOTAL 2004 : 16 Projects		293.4	

2005

Project Number	Project Name	IDB US\$ Millions	Status
<u>EC1009</u>	Solid Waste Management Program in Intermediate Cities	25.0	
<u>EC0139</u>	Municipal Development II (PDM II)	40.0	
Total - A : 2 Projects		65.0	
TOTAL - 2005 : 2 Projects		65.0	
Total Private Sector 2004 - 2005		153.0	
Total Regular Program 2004 - 2005		205.4	

* Private Sector Project



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IDB LOANS

APPROVED AS OF NOVEMBER 1, 2003

	US\$Thousand	Percent
TOTAL APPROVED	4,093,422	
DISBURSED	3,823,993	93.41 %
UNDISBURSED BALANCE	269,429	6.58 %
CANCELATIONS	542,428	13.25 %
PRINCIPAL COLLECTED	1,759,050	42.97 %
APPROVED BY FUND		
ORDINARY CAPITAL	3,058,738	74.72 %
FUND FOR SPECIAL OPERATIONS	945,681	23.10 %
OTHER FUNDS	89,004	2.17 %
OUTSTANDING DEBT BALANCE	2,064,943	
ORDINARY CAPITAL	1,472,015	71.28 %
FUND FOR SPECIAL OPERATIONS	586,565	28.40 %
OTHER FUNDS	6,364	0.30 %
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	1,132,435	27.66 %
INDUSTRY, TOURISM, SCIENCE AND TECHNOLOGY	476,530	11.64 %
ENERGY	315,952	7.71 %
TRANSPORTATION AND COMMUNICATIONS	334,732	8.17 %
EDUCATION	210,784	5.14 %
HEALTH AND SANITATION	375,070	9.16 %
ENVIRONMENT	96,273	2.35 %
URBAN DEVELOPMENT	240,237	5.86 %
SOCIAL INVESTMENT AND MICROENTERPRISE	496,251	12.12 %
REFORM AND PUBLIC SECTOR MODERNIZATION	384,281	9.38 %
EXPORT FINANCING	0	0.00 %
PREINVESTMENT AND OTHER	30,878	0.75 %

* Net of cancellations with monetary adjustments and export financing loan collections.



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STATUS OF LOANS IN EXECUTION AS OF NOVEMBER 1, 2003

(Amount in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROYECTS	AMOUNT APPROVED*	AMOUNT DISBURSED	% DISBURSED
<u>REGULAR PROGRAM</u>				
Before 1998	3	60,778	50,143	82.50 %
1998 - 1999	2	55,472	37,347	67.33 %
2000 - 2001	6	91,813	25,104	27.34 %
2002 - 2003	4	275,000	109,159	39.69 %
TOTAL	15	\$483,063	\$221,753	45.91 %

* Net of cancellations. Excludes export financing loans.

COASTAL RESOURCES MANAGEMENT PROJECT, PHASE II

(EC-0193)

EXECUTIVE SUMMARY

Borrower:	The Republic of Ecuador	
Guarantor:	Not applicable	
Executing agency:	Office of the President of the Republic	
Amount and source:	IDB (OC/IFF):	US\$ 12.4 million
	Local:	<u>US\$ 2.0 million</u>
	Total:	US\$ 14.4 million
Financial terms and conditions:	Amortization period:	25 years
	Grace period:	5 years
	Disbursement period (maximum)	5 years
	Disbursement period (minimum)	3 years
	Currency:	Single Currency Facility, in U.S. dollars
	<p>The interest rate, credit fee, and inspection and supervision fee mentioned in this document are established pursuant to document FN-568-3 Rev. and may be changed by the Board of Executive Directors taking into account the currently available information and the respective recommendation by the Finance Department. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed 1%.¹</p>	
Objectives:	Interest rate:	LIBOR
	Credit fee:	0.25%
	Inspection and supervision:	0%
	<p>The general objective of phase II of the coastal resources management project (Project II) is to improve and expand integrated coastal management by supporting the gradual transfer of responsibilities for land-use planning and management of the coastal</p>	

¹ In no case will the inspection and supervision fee exceed, in a given six-month period, the amount that would result from dividing 1% of the loan amount by the number of six-month periods in the original disbursement period.

zone to the local level, thereby contributing to the sustainable use of coastal resources and helping to improve the quality of life of local communities along Ecuador's continental coast. This phase will continue the efforts begun in phase I, bolstering the gains made.

The specific objectives of Project II are: (i) to promote the adoption of policies and regulations for coastal management on the national and local levels and to build up the institutional capacity of the system for integrated management of coastal resources, with greater participation by society; (ii) to support the generation, systemization and dissemination of information on the status of the coastal resources and trends, to facilitate national and local management and good practices; and (iii) to improve the well-being of communities and individuals through the promotion of community investments, preventive and productive activities that increase participation by society in sustainable use of coastal resources, while improving incomes.

Description:

Project II proposes a series of integrated actions distributed among three main components:

1. Coastal management (US\$2.5 million)

This component will prepare and obtain approval of policies for integrated coastal management and tourism and the adoption of a national integrated coastal management agenda. It will develop the institutions in the system, including the strengthening of the land-use planning capacity of 10 municipalities on the coast. The component is divided into two subcomponents: (i) national coastal management, and (ii) local coastal management.

2. Information for coastal management (US\$2.4 million)

Progress in integrated coastal management depends on having access to reliable information for decision-making on all levels and the provision of services to carry out plans and projects for coastal land-use planning and productive investments. The purpose of this component is to develop an information system that promotes and supports efficient and effective coastal management. The component consists of three subcomponents: (i) an information system; (ii) preinvestment studies; and (iii) human capital investments. This subcomponent will finance studies to obtain key information to justify and improve national and local policy decisions and good management practices, rules and regulations, including preinvestment activities.

3. Investments in the coastal belt (US\$6.7 million)

The purpose of this component is to provide and/or supplement financing for preventive and productive community works that will contribute to the sustainable use of coastal resources and to improving the quality of life of the local population. This component will be governed by Operating Regulations and consists of two subcomponents: (i) community and preventive investments; and (ii) productive investments.

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

The country paper (CP) proposes the following objectives: (i) stabilization of the economy and renewed growth; (ii) poverty alleviation and human capital formation and social inclusion; (iii) efficient management of infrastructure with private sector participation; and (iv) modernization and decentralization of the State and promotion of sustainable regional development. The CP calls for continued support for environmental protection and the sustainable use of resources, with the participation of coastal communities, which are key elements in the Coastal Resources Management Program (PMRC).

The programming memorandum of March 2003 establishes that the new strategy to be presented shortly to the Board of Executive Directors shares the analysis contained in the current CP and focuses on three development challenges: (i) governance; (ii) structural reforms and increased competitiveness; and (iii) poverty alleviation and social safety nets. In this context, the memorandum establishes the following criteria for the selection of new operations, which must also dovetail with the Bank's strategy and the government's priorities: (i) geographic focusing by poverty level; and (ii) strengthening of the rule of law and governance. Project II complies with these selection criteria, the Bank's strategy and the government's priorities.

Coordination with other development institutions:

The World Bank is financing a potable water project (PRAGUAS), involving sanitation and water works in rural zones and municipalities with populations under 10,000. The PMRC coordinates its activities in the special management zones (SMZs) through zone committees (ZCs) and the municipalities, meaning that efforts are focused on the development of specific projects. When Project II was being prepared, its compatibility with PRAGUAS was established. The proposed project largely works with projects in coastal towns with populations of under 1,500, which in practice are not served by PRAGUAS, as was observed in Project I. Both operations have similar criteria for carrying out specific projects (paragraph 1.29).

Environmental and social review: CESI/TRG's recommendations have been incorporated into this proposal, which was found to be adequate, according to CESI/TRG's minutes 16-03 of 2 May 2003.

Benefits: The coastal management and information components will improve the conditions and means of governance to steer the process of sustainable development along the coast. The beneficiaries will include coastal municipalities and inhabitants and thousands of seasonal tourists who will enjoy better managed areas and better services.

The productive projects linked to the conservation of environmental quality and improvements in the local standard of living will benefit the direct users of the resources, particularly women who live in the special management zone (SMZ) communities where the program operates, who are traditionally responsible for gathering marine products in the mangrove swamps, which are important for their subsistence. The projects include activities to boost the role of women in the coastal planning and resource management processes. The activities to support communities that hold mangrove concessions in the Cayapas-Mataje Reserve will directly benefit Afro-Ecuadorian communities.

The main beneficiaries will be the coastal population, particularly in the SMZs. The investments are targeted to specific groups, mostly low income groups. Close to 50,000 people will benefit from the projects to provide basic sanitation services, including 4,800 people with latrines, 2,000 with potable water systems, and 40,000 with solid waste management systems. Management of the mangrove swamps will directly benefit some 20,000 people. The preventive works will have a considerable impact on reducing the vulnerability of coastal populations and economic losses owing to natural disasters

Risks: **Risk:** The beneficiaries may not make timely contributions.

Mitigating factor: Project II seeks to make the works and the processes financed sustainable, which has proven to be successful in Project I. Project II's Operating Regulations improve the conditions for success, including commitments to cofinance specific projects and to operate and maintain them adequately.

Project II also seeks the financial and institutional viability of the PMRC and of integrated coastal management. The local contribution to Project I was timely and the contribution for Project II is similar in amount. As this loan proposal describes, an action plan will be drawn up to seek own financial resources for the PMRC. As of the third year, the Executive Directorate of the PMRC will be in a

position to cover part of its operating costs with own resources. Active participation in the PMRC by public and private national, regional and local stakeholders means that institutional conditions for integrated coastal management will be established to promote institutional sustainability. Also, the coastal municipalities seek advisory services from the PMRC for land-use planning and planning activities.

Since the coastal municipalities attach priority to the kinds of works financed by Project II, which permits them to leverage their resources, they will give priority to allocating their scarce funds to these operations, as various municipalities have already indicated. In addition, each participating municipality will be required to sign an agreement under Project II, setting out its commitments for cofinancing and adequate operation and maintenance of the specific projects financed, as indicated in the Operating Regulations for Project II.

**Special
contractual
clauses:**

1. Precedent to the first disbursement

- a. That the project's Operating Regulations, agreed previously by the executing agency and the Bank, have entered into force (paragraph 3.15).
- b. That the technical staff necessary for the project has been hired, which will have been selected by an external recruitment firm (paragraphs 3.5 and 3.6).
- c. Evidence that agreements have been signed with at least two of the municipalities participating in the local coastal management project (paragraph 3.14).

2. During execution of Project II

- a. Presentation to the Bank of the information necessary to perform the midterm evaluation when 40% of the loan proceeds have been disbursed, at the latest, and the information necessary to perform the final evaluation when 90% of the proceeds have been disbursed, at the latest (paragraph 3.31).
- b. The annual auditor's reports referred to in the General Conditions should include an operational and technical audit of the project. Also, within 60 days after the close of each semiannual period during project execution, the independent firm contracted to produce the annual reports, will issue interim reports containing accounting, financial, operational and technical information for the period. Technical audits are to include a determination of compliance with indicators and

targets set in Annual operating plans (AOPs) and the Project II logical framework (paragraph 3.26).

- c. The executing agency will present to the Bank's satisfaction, 24 months from entry into force of the contract, evidence that the fourth and fifth academic years leading to the master's degree in integrated management of coastal resources at the Coastal Polytechnic School (ESPOL) have been established and that there are sufficient resources to finance the degree program (paragraph 1.20).

Poverty-targeting and social sector classification:

This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). Furthermore, this operation qualifies as a poverty-targeted investment (PTI) on the basis of geographic focusing (see paragraph 4.32).

Exceptions to Bank policy:

None.

Procurement:

Bids for works costing US\$1 million and over, goods for US\$250,000 and over and services for over US\$200,000 will require international publicity. Price may be used as a criterion for the selection of consulting services, as provided in document GN-1679-3. When the selection criterion is based on a combination of the best price and the best technical proposal, the weight of the price may not exceed 30%. Bids below these thresholds will be carried out in accordance with ad hoc procedures agreed on with the Bank for Ecuador.

The tender procedures and disbursements will be handled pursuant to the Bank's standard guidelines on the subject. A list of procurements and contracts is given in Annex III.

I. FRAME OF REFERENCE

A. Background

- 1.1 Ecuador has been a pioneer in integrated coastal management (ICM) in Latin America. The formal establishment of the Programa de Manejo de Recursos Costeros [Coastal Resources Management Program] (PMRC)¹ in an Executive Decree of 1989 constituted a formal commitment by the Government of Ecuador to the conservation and sustainable use of those resources. Building on earlier efforts supported by the United States Agency for International Development (USAID) (1985-1992), which focused on bolstering human and institutional capacity for integrated coastal management, in 1992 the government and the Bank agreed to continue supporting PMRC operations.
- 1.2 A Bank loan (913/SF-EC) for US\$14.9 million was signed in 1994 to finance Project I. The project was declared eligible for disbursement in July 1996, once the conditions precedent were complied with to the Bank's satisfaction. The last disbursement was made on 9 April 2001 and a special extension was granted to make disbursements for works contracted up to 30 June 2001. At the end of the operation, US\$719,684 was cancelled, since it was felt that the remaining activities established in the original design of Project I, such as the studies in the Río Chone basin (main outstanding activity), could not be contracted and completed within a reasonable time and a second phase in support of the PMRC was anticipated. The local counterpart, including community contributions, was US\$1.5 million.
- 1.3 The continued existence of the PMRC since 1989 indicates the continuing priority attached by the government to integrated coastal management, which is important for its sustainability. For 14 years, the PMRC has received support from different governments and has been able to establish its institutional structure and operating procedures. Also, groups of users of coastal resources have been organized and supported in projects that bring social and environmental benefits, which are a significant step forward in promoting local self-management capacity and a better understanding of the value of coastal resources and their management. Despite different political and economic crises in the country, users groups in the special management zones (SMZs) have maintained the links to the integrated coastal management system established under the program and have developed initiatives that they have financed themselves or with support from other institutions.
- 1.4 With the completion of Project I, a major source of resources for the PMRC dried up, which made it impossible to continue investments at the same levels as in previous years. However, owing to the priority the government attaches to integrated coastal management and the needs of the SMZs, the PMRC Executive

¹ The PMRC refers to the national entity created to promote integrated coastal management in Ecuador; Project I refers to loan 913/SF-EC; and Project II refers to the operation being prepared.

Directorate (DE) continued with technical activities, such as project supervision, execution of some projects with financing from third parties, support for communities in the SMZs, preparation of Project II for prompt execution once the loan is approved, and arrangements to contract the consulting firm to prepare the Project II operating plans. These actions have made it possible to maintain the gains made under Project I and the PMRC's local credibility. The agency responsible for coastal management—the National Coastal Resources Management Commission (CNMRC)—has worked actively on preparing the program of operations for 2002 and 2003, evaluating the first program, the lines of work of the PMRC, institutional changes and the request to the Bank for the proposed operation. Because 2002 was an election year and a time for negotiation of the economic program, it was impossible to process the operation earlier. At the start of 2003, the new authorities confirmed the priority they attach to this project to the Bank.

- 1.5 Despite the economic difficulties that affected the country during execution of Project I (five presidents), the government demonstrated its priority and financial support by providing US\$210,000 a year until Project I was completed, whereupon the government increased its support for the PMRC with a contribution of US\$467,000 in 2002. The work carried out by the PMRC to prepare Project II is well advanced and the project team has reviewed the draft Operating Regulations and the plan of operations for the first year. No difficulties are anticipated in complying with the conditions precedent to the first disbursement and it will be possible to begin executing Project II expeditiously.

B. Integrated coastal management and Project I

- 1.6 Integrated coastal management in Ecuador allows the priority issues to be identified: (i) to mitigate water quality degradation and improve environmental sanitation services; (ii) to improve the development and land-use planning process, including coastal tourism; (iii) to mitigate and prevent the effects of natural disasters in coastal zones; (iv) to mitigate the degradation of critical habitats and the loss of fishery resources; and (v) to mitigate the impacts of mining, agriculture, fish farming and fishing.
- 1.7 Integrated coastal management is mainly an attempt to govern changes in coastal environments, fostering joint management of resources as a society by the relevant public sectors, private commercial interests, the academic and scientific community, and communities and individuals whose survival and means of earning a living will be most heavily affected by management decisions. The integrated coastal management strategy consists of making headway in two areas simultaneously, which is strengthened and formalized with decentralization: (i) on the national level, coastal management policies are defined and harmonized, operating as a framework to coordinate the actions of stakeholders; and (ii) on the local level, coastal management planning is implemented and projects are executed.

These principles have been the basis for work during the five years of Project I (1996-2001).

- 1.8 The basic structure of the PMRC includes: (i) the National Coastal Resources Management Commission (CNMRC); (ii) the Technical Secretariat (TS); (iii) the Executive Directorate (DE); (iv) the zone committees (ZCs); (v) the special management zone (SMZ) offices;² and (vi) the conservation and surveillance units (CSUs). The chief authority of the PMRC is the CNMRC, which is chaired by the Secretary General of the Public Administration and is composed of the Ministers of the Environment, Tourism, Agriculture and Livestock, Foreign Trade, Industry, Fisheries, and Competitiveness, a representative of the Association of Coastal Municipalities, and the Director General of Maritime Interests of the Navy. Its function is to develop national policies on coastal matters and promote coordination among government agencies with responsibilities for coastal activities and resources.
- 1.9 The TS is composed of the Undersecretary for Coastal Management, who chairs it; the Undersecretary for Coastal Tourism; and the Undersecretary for Fishing Resources. The TS is responsible for technical execution of Project II, including approving AOPs, management plans, and the creation or elimination of special management areas submitted for TS consideration by the DE.
- 1.10 The DE is composed of the Executive Director, Technical Director, and several specialists. The DE is responsible for preparing AOPs and management plans, recommending the creation or elimination of special management areas, and submitting them to the TS for approval.
- 1.11 The zone committees are composed of representatives of cooperatives, community groups, local organizations and authorities involved in coastal management. The conservation and surveillance units are bodies that provide support and coordination for resource management focused on coastal ecosystems. They act within the jurisdiction of a port authority and integrate the coastal management authorities in their functions and operations to control the use of resources.
- 1.12 The institutional arrangement, based on two hubs of action known as the “two paths” of integrated coastal management, ensures that an interagency approach will be taken to the definition of national policies and strategies and to the control and supervision of PMRC activities, through the CNMRC’s members, who are ministers of state and representatives of lower levels of government. The arrangement facilitates the practical development of integrated coastal management on the local level, through the conservation and surveillance units and the special

² The six special management zones were established in an Executive Decree of 1989 and the PMRC focuses its efforts on them.

management zones. The units carry out coastal management through coordination and joint operations with local authorities. The zones are responsible for social organization and local development planning, through committees of users of coastal resources. Liaison between the two operating levels of the PMRC and responsibility for executing the annual work plans lies with the Executive Directorate, which is headquartered in Guayaquil under TS supervision and technical control.

- 1.13 Project I included an ambitious portfolio of activities, based on three subprograms: (i) community coastal management projects in the special management zones; (ii) applied research, environmental surveillance and development of a national policy; and (iii) institutional development and strengthening.

1. Context of Project I

- 1.14 Serious external factors affected activities under Project I in 1996 (year one) and in 2001. The country suffered from considerable political and economic instability, including a succession of five presidents. Since the PMRC was a program coming under the Office of the President, the political changes resulted in changes in leadership and personnel during Project I. The coastal provinces sustained heavy economic losses (estimated at more than US\$2 billion) on account of the 1997-1998 El Niño, and were required to divert significant amounts of money into responding to the damage, including funds earmarked for special management zone activities. Contributing to the economic difficulties, the shrimp industry was devastated in 1999 by the white spot virus, with 90,000 jobs lost and total losses of over US\$600 million in 2000. Both events demonstrate the importance of good management of coastal resources, planning and preventive works.
- 1.15 According to the evaluations of Project I,³ it progressed relatively well, particularly in community activities. However, the external factors affected activity in the CNMRC and, consequently, progress in national activities, such as the promulgation of national policies.

2. Shortcomings

- 1.16 With respect to institutional development of the PMRC, the design of Project I stressed the strengthening and development of administrative and operating capacity to execute Project I investments. It focused on activities, particularly on the community level, which were carried out adequately.
- 1.17 Project I did not make significant headway in establishing an intersector mandate to frame its actions, particularly on account of the lack of effectiveness of the

³ Midterm evaluation, lessons learned, and the project completion report.

CNMRC. Progress on the national level on issues such as halting the cutting of mangroves, orderly development of the coastline and control of activities that cause the degradation of water quality still lie ahead. However, in the areas of influence of the special management zones, progress was made under Project I with respect to sensitization and changes in social behavior and certain environmental aspects improved.

- 1.18 As for the applied research and environmental monitoring component, achievements were partial, since the information was compiled sporadically on certain basic parameters, such as water quality, the fisheries inventory, use of marine resources and mangrove swamps. The lack of systemization in the information collected was not conducive to supporting decisions on integrated coastal management. However, the development of capacity in geographic information systems, thanks to Project I, particularly in monitoring the mangrove swamps and its continuation, will bring major benefits in support of planning exercises. The data and maps produced have proven to be vital in defining the condition of coastal resources and potential future uses.

3. Achievements

- 1.19 The project completion report for Project I indicates that nearly all the physical goals were achieved, which is particularly noteworthy when the political and economic context in the country during the project is taken into account. The environmental sanitation works built with community participation have contributed directly to improving the living conditions of the members of the beneficiary communities. Ten studies and designs were produced for supplying water for communities with populations under 5,000, five of which were financed under Project I and the remaining five were carried out through self-management with different governmental and nongovernmental institutions. The beneficiary communities contributed more than 20%. More than 10,000 people benefited directly from the potable water works. Project I also launched an ambitious program to construct latrines, which provided service for 37 communities, directly benefiting more than 15,000 people. Like the drinking water projects, community contributions (mainly in kind) were higher than anticipated, exceeding the forecast 20%.
- 1.20 Last, Project I supported the construction of four trash collection systems, benefiting over 26,000 people. All the sanitation works included a component for training, awareness raising and operation and maintenance to ensure that the beneficiary communities are familiar with and accept basic sanitary practices for water use, sewage disposal and solid waste collection. As one of the initiatives for human capital formation for coastal management, Project I financed, under a contract between the PMRC and ESPOL, three diploma courses leading to a master's degree in integrated coastal management; although eligible, the fourth and fifth courses were not financed under Project I. **The government has undertaken**

to finance the fourth and fifth year courses leading to the master's degree in integrated coastal management during the proposed operation.

- 1.21 The community activities promoted under Project I, such as the conservation of 3,664 ha and reforestation of 560 ha of mangroves, training for inshore fishermen, cleaning up beaches, surveillance and preventive monitoring, and institutional strengthening have improved the understanding and awareness of the coastal population about integrated coastal management, including a start on land-use planning.
- 1.22 Project I is widely credited with having a considerable impact on understanding the value of coastal resources and their management.⁴ Participation by communities and particularly by women has been a distinctive and determining factor in satisfactory Project I execution. Participation by women in the zone committees, representing different associations and groups, has been particularly noteworthy.⁵ In the special management zone of Atacames in Esmeraldas province, 20% of the members of the zone committee are Afro-Ecuadorians. The zone committees have built consensus between the local authorities and groups of stakeholders on priority issues for management, with significant results in the management of mangrove swamps, environmental sanitation, voluntary imposition of fishing bans, beach clean-up campaigns and planning and management of local tourism. The special management zones were effective in coping with demands that stemmed from the crisis after the el Niño disaster in 1997-1998. The investment in establishing community groups and the close relations with the local authorities improved medical assistance and allowed for a swift response to the crisis. Project I launched several successful initiatives to promote the development of small businesses, including training, tourism projects (hump-backed whales, community hostels), modernization of shrimp seed fishing gear and fisheries training. The interagency coordination promoted by Project I through the conservation and surveillance units (CSUs)⁶ for joint patrolling, observance of environmental laws and licenses, and follow-up on changes in the condition and use of coastal resources have been one of the most widely recognized achievements of Project I. However, the effectiveness of the CSUs has been affected by the lack of follow-up on the legal actions launched as a result of unit operations. The participative approach and the will to experiment with alternative management tools are considered the most important strengths of the PMRC.

⁴ The fisheries authorities have said that the increase in understanding of the value and management of coastal resources, which is the result of Project I, has facilitated their work.

⁵ For example, in the special management zone of Atacames, 70% of the representatives on the zone committee are women. Taking all six special management zones together, close to 30% of group representatives are women.

⁶ The surveillance system that operates under the PMRC was established in Executive Decree No. 375 (and No. 3399).

4. Lessons learned for Project II

- 1.23 Project I had ambitious objectives, particularly with regard to the policy component. The design turned out to be unclear, particularly when the policy components were established as a condition precedent to disbursements. The program sought to regulate the shrimp industry, including permits and licenses. The PMRC attempted to regulate an industry that generated significant fiscal resources and exports, without sufficient financial resources and little political leverage. Neither the government nor the private sector had incentives to act. Accordingly, Project II establishes objectives that are better tailored to the PMRC's capacity.
- 1.24 The lessons learned from the evaluations of Project I have been used in the design of Project II, as follows: (i) Project II will promote and harmonize the national coastal management policies necessary to form a framework for coordination of the actions of the lower levels of government and public and private agencies; the CNMRC will be reactivated and carry out its mandate of interagency coordination; (ii) Project II will promote institutional arrangements to permit the PMRC to manage resources through greater participation by all the players involved in integrated management; (iii) more scientific information will be made available on coastal resources and ecosystems; and (iv) on the basis of the practices followed under Project I, the good experiences with productive projects linked to environmental conservation, improvements in the local standard of living and more representation of women and Afro-Ecuadorian groups in integrated coastal management projects will be promoted.
- 1.25 As for the types of works to be cofinanced under Project II, given the impact of natural disasters—particularly el Niño—on the coastal economy and the vulnerability of small communities assisted by Project II, priority will be given to specific disaster prevention works. The lessons learned from Project I also point to the need for the PMRC to seek additional financial resources from outside the Bank to contribute to its sustainability.

C. Decentralization, a new context for integrated coastal management

- 1.26 The decentralization process⁷ has embarked on a new phase in natural resource management and environmental protection. Responsibilities for planning, proposing policies and rules, and control over coastal management issues are being transferred to local governments, including municipalities and provincial councils. Decentralization enables these bodies to request the transfer of responsibilities. The process increases the sense of local ownership of resources, expands the opportunities for community participation and improves the prospects for

⁷ Promoted by the Special Decentralization Law and the Law on Unconditional Transfers of Funds, known as the 15% Law.

transparency in allocating resources. This mandate is a great stimulus for decentralization, but the transfer of powers does not go hand-in-hand with the transfer of management and planning capacity, which could result in reckless exploitation of coastal resources to obtain higher income.

- 1.27 Ecuador's Ministry of the Environment (MAE) has led the transfer of responsibilities to the lower levels of government and has issued regulations to make the transfers effective. To exercise the responsibilities that have been or are about to be transferred, 13 of the 32 coastal municipalities have already established environmental management units (MEMUs) and three of the provincial councils have also established environmental control agencies. The MEMUs require technical assistance, information, rules, and working mechanisms that permit them to exercise their responsibilities over coastal resources.
- 1.28 In addition, under Ministerial Order No. 004 of January 2002, the MAE conferred responsibilities on the Undersecretariat of Coastal Environmental Management⁸ over coastal resources, i.e., beaches, estuaries, bays, mangrove swamps, oceanography, environmental quality including prevention and control of pollution, local environmental management, and the application of the ministry's policies, in coordination with the coastal region. Given the undersecretariat's new responsibilities, the government decided to transfer to it leadership of the TS. The change is expected to be positive for the success of the PMRC, since the MAE and the other sectors represented in the TS will feel a greater sense of ownership. The TS also allows for greater links between key sector ministries and the PMRC. The impulse given by the MAE to decentralization creates a favorable context for directly involving local governments in integrated coastal management.

D. Programs of other donors

- 1.29 The World Bank is financing a potable water project (PRAGUAS), involving sanitation and water works in rural zones and municipalities with populations under 10,000. The PMRC coordinates its activities in the special management zones through zone committees and the municipalities, meaning that efforts are focused on the development of specific projects. When Project II was being prepared, it was ensured that it was compatible with PRAGUAS. Project II largely works with projects in coastal towns with populations of under 1,500, which in practice are not served by PRAGUAS, as was observed under Project I. Both operations have similar criteria for carrying out specific projects.

⁸ Previously the Undersecretariat of Sustainable Development.

E. The Bank's strategy

- 1.30 The country paper (CP) proposes the following objectives: (i) stabilization of the economy and renewed growth; (ii) poverty alleviation and human capital formation and social inclusion; (iii) efficient management of infrastructure with private sector participation; and (iv) modernization and decentralization of the State and promotion of sustainable regional development. The strategy mentions the Galapagos Islands, the coastal belt and the northern border as areas for special attention. The CP calls for continued support for environmental protection and the sustainable use of resources, with the participation of coastal communities, which are key elements in the PMRC.
- 1.31 The programming memorandum of March 2003 establishes that the new strategy to be presented shortly to the Board of Executive Directors shares the analysis contained in the CP and focuses on three development challenges: (i) governance; (ii) structural reforms and increased competitiveness; and (iii) poverty alleviation and social safety nets. In this context, the memorandum establishes the following criteria for the selection of new operations, which must also dovetail with the Bank's strategy and the government's priorities: (i) geographic focusing by poverty level; and (ii) strengthening of the rule of law and governance. Project II complies with these selection criteria, the Bank's strategy and the government's priorities.
- 1.32 Project II focuses its investments on the poorest coastal areas, directly benefiting low income groups and contributing to poverty reduction. Therefore it is in line with the Bank's country strategy, the government's priorities, and the Bank's project selection criteria, through its contribution to conservation and the sustainable use of natural resources, governance and decentralization, and poverty reduction.

F. Project II's strategy

- 1.33 The strategy for phase II in support of the PMRC consists of strengthening the institutional arrangements and coastal management capacity as the basis for permanent and sustainable integrated coastal management. The project seeks to internalize the coastal management methodology in all the players, especially on the municipal level, so they can govern the changes in coastal environment. The intention is to position the PMRC as the best institution to channel resources to the coastal belt, on account of its management methodology, its technical and operating capacity, its interagency coordination on the national and local levels, and its strengths in user participation through the zone committees in the special management zones. The municipalities, the central government, nongovernmental organizations, and donors have, in the PMRC, an advisory and executive body that supports them in their investment decisions in the coastal belt.

- 1.34 The activities planned with the municipalities will establish a close working relationship with the PMRC. One goal is for the coastal municipalities to use the PMRC's advisory services, going beyond the specific activities planned under Project II. The governance and sustainability of the PMRC is based on participation by the municipalities and other players in integrated coastal management, with support from Project II. The mission and organization of the PMRC and its principles and practices confer on it the role of facilitator and promoter of governance. As can be seen in the way it is organized and in the processes for approving plans and projects, the system is highly participative, facilitating and promoting interaction among the host of players in the coastal belt.
- 1.35 The benefits of Project II deriving from integrated coastal management refer to the conservation and sustainable use of coastal resources and improvement in the quality of life of coastal communities, in particular, low-income groups. The Project II objectives will be achieved essentially by building a context for governance. Executing Project II in a way that provides continuity and sustainability for the results is a strategic element for consolidating policies to improve environmental quality and the quality of human life. The government has adopted integrated coastal management as a tool for promoting decentralized sustainable development and citizen participation in the coastal zone.
- 1.36 In addition to fully including the players involved in integrated coastal management in the proposed operation, Project II seeks to formalize additional sources of financing for the PMRC, to promote its sustainability. Project II includes new sources of financial resources and the formal inclusion of community and municipal government players in the system. The policies to be promoted under Project II (mangrove swamps and tourism) are realistic and in tune with the legal framework and the capacity of the PMRC and are framed in a context that is different from the shrimp industry.
- 1.37 The proposed Project II will continue with the activities that began during the first phase of support for the PMRC, which was considered a success since it had a considerable impact on understanding the value of coastal resources and the need for their management and achieved most of its original goals. Execution of Project II will be similar to that of Project I, with some changes to improve it. The system will be strengthened institutionally, seeking greater governance and representativeness and formally including the municipalities in integrated coastal management and making the work of the CNMRC more efficient by focusing its role on promoting MCI policies and strategies and placing PMRC technical supervision in the TS, thus improving links with sector ministries. The Operating Regulations will be changed to improve the allocation of resources (paragraphs 3.16 to 3.20) and the quest for own resources for PMRC management (paragraphs 4.3 to 4.6). These changes are intended to confer greater stability on the PMRC, in the form of governance, the efficient allocation of resources and the generation of own resources.

II. PROJECT II

A. Objectives and description

- 2.1 The general objective of phase II in support of the coastal resources management program (Project II) is to improve and expand integrated coastal management by supporting the gradual transfer of responsibilities for land-use planning and management of the coastal zone to the local level, thereby contributing to the sustainable use of resources and the quality of life of local communities along Ecuador's continental coast. This second phase of support will continue the efforts begun under Project I, bolstering the gains made.
- 2.2 The specific objectives of Project II are: (i) to promote the adoption of policies and regulations for coastal management at the national and local levels and to build up the institutional capacity of the system for integrated management of coastal resources, with greater participation by society; (ii) to support the generation, systemization and dissemination of information on the status of coastal resources and trends, to facilitate national and local management and good practices; and (iii) to improve the well-being of communities and individuals through the promotion of community investments, preventive and productive activities that increase participation by society in the sustainable use of coastal resources and disaster prevention, while improving incomes (see the logical framework in Annex II).

B. Structure of Project II

- 2.3 Project II proposes a series of integrated actions distributed among three main components: (i) coastal management; (ii) information for coastal management; and (iii) investments in the coastal belt.

1. Coastal management component (US\$2.5 million)

- 2.4 This component will prepare and promulgate a regulatory framework for integrated coastal management and develop the system's institutions.

a. National coastal management (US\$177,000)

- 2.5 The purpose of this subcomponent is to support the preparation and approval of policies for integrated coastal management and tourism to guide the investments of the government and the private sector in the coastal zone, which are consistent with social, environmental and economic development plans and strategies. Activities to be financed include promoting compliance with the mangrove protection legislation, including consensus building and promotion of backing by the citizenry and institutions, through publicity in the press, printed matter, events and working meetings with decision makers. Support will also be provided in preparing and

obtaining approval of a tourism policy for the coastal area, and promoting compliance. Project II will promote the adoption of a national integrated coastal management agenda. Resources from this subcomponent will be used to finance technical assistance for studies, workshops and other expenditures associated with preparation, approval and promotion of the policies for integrated coastal management and tourism and the national integrated coastal management agenda. This subcomponent and the local coastal management component are important because they promote environmentally suitable coastal management and because they provide guidance for government, private sector and community activities in the tourism industry, in particular, which has high development potential along the coast.

b. Local coastal management (US\$2.3 million)

- 2.6 This subcomponent aims to strengthen the land-use planning capacity of 10 municipalities on the coast⁹ in their role as the main agents responsible for the coastal area. The support activities include: (i) preparation, negotiation, approval and enforcement of municipal bylaws on land use at tourist beaches, use of coastal resources, and environmental sanitation; (ii) training, design and execution of the work plans of the municipal environmental management units (MEMUs); (iii) development of a geographic information system in the MEMUs; (iv) approval and promotion of compliance with technical standards and measures for the prevention and mitigation of natural disasters owing to oceanospheric events and climate change; (v) support in managing the tourism season; and (vi) development of good practices in selected fisheries and in fish farming. Project II will finance technical assistance, workshops and training, equipment and software. It will complete the information in the possession of the municipalities, particularly the profiles of the tourist beaches in the special management zones, begun under Project I, as the basis for land-use planning. Existing bylaws will be analyzed and revised and new bylaws will be drafted for selected tourist zones.
- 2.7 In addition to strengthening the management capacity of 10 municipalities, Project II will sign agreements with the municipality of Machala to support the preparation, approval and implementation of plans to manage water pollution, based on the experience of the municipality of Guayaquil. Studies to identify sources and areas of pollution, technical assistance and workshops will be financed. Sources of industrial water pollution and contaminated areas will be identified, as will the nature and location of municipal effluents.

⁹ It is expected that agreements will be signed with 10 municipalities in total. To date, six have expressed their interest in the agreement: Atacames, San Vicente, Sucre, Puerto López, Santa Elena, and Santa Rosa. Four more municipalities are expected to sign in the first year of operation.

- 2.8 Project II will contribute to the sustainability of the work of the conservation and surveillance units (CSUs) based on the current situation, by providing support for equipment, training and conflict management, including the collection of fines for violations of municipal environmental bylaws, which will be put toward the working capital of the CSUs. In addition, Project II will support the special management zone offices and the Executive Directorate, by replacing obsolete equipment and providing training for staff.

2. Information for coastal management component (US\$2.4 million)

- 2.9 Progress in integrated coastal management depends on having reliable and accessible information for decision making on all levels and services to carry out plans and projects for land-use planning and productive investments. The purpose of this component is to develop an information system to promote and support efficient and effective coastal management. This component was structured on the basis of the partial achievements of the applied research and environmental monitoring component under Project I. It is composed of three subcomponents: (i) the information system; (ii) preinvestment studies; and (iii) investments in human capital for integrated coastal management. Project II will finance technical assistance, technical reports, mapping, censuses and surveys, workshops, equipment and software.

a. Information systems (US\$164,000)

- 2.10 The purpose of this subcomponent is to consolidate a center to compile, systemize, analyze and disseminate information on the use of coastal resources that can be used for policies and coastal management, incorporating a network of users from national and local governments and the private sector.
- 2.11 The activities in this subcomponent include: (i) developing a database with variables that feed into the formulation of policies, good practices, standards, bylaws, and coastal investments envisaged by municipalities and government programs; (ii) designing, developing and implementing a general information system for coastal management that includes a web portal to administer system resources, a module for documentary information and pdf files for maps and publications, a module for consultation of the census and statistics database, a module for consultation of other databases, and a module for managing e-mail; (iii) Internet service, a server and telephone lines; and (iv) administration and maintenance of the system. An integrated coastal management system will also be designed and implemented.

b. Preinvestment studies (US\$1.8 million)

- 2.12 Under this subcomponent, studies will be financed to obtain key information for justifying and improving decisions on national and local policies, and for good

management practices, rules and regulations, including preinvestment activities. Activities under this subcomponent, which originate in the annual operating plans, include: (i) mapping of selected areas (beaches, watersheds); (ii) profiles of coastal watersheds; (iii) evaluation of coastal watersheds that have been selected for water management and risk prevention; (iv) surveys of coastal communities; (v) preinvestment studies to guide the component for productive investments. Financing will also be provided for good practices in selected fisheries and workshops to identify and evaluate practical management exercises.

c. Human capital investments (US\$449,000)

- 2.13 Financing is included to systemize and disseminate the lessons learned in integrated coastal management and progress and results under Project II. Learning materials generated under Project I will be introduced into the formal education system (primary and secondary schools), and training will be provided for decision makers, including selected staff from the municipal environmental management units linked to Project II in aspects of integrated coastal management.

3. Investment in the coastal belt component (US\$6.7 million)

- 2.14 The purpose of this component is to finance preventive and productive works that will benefit the community and contribute to the sustainable use of coastal resources, while improving the quality of life of the local population.¹⁰ This component will be governed by Operating Regulations, as in Project I.

a. Community and preventive investments (US\$5.5 million)

- 2.15 Project II will facilitate and/or complement the financing of the following types of works:¹¹ small-scale drinking water systems, hygienic waste disposal systems in rural areas, support for the outsourcing of trash collection¹² and disposal, cisterns to store freshwater. This subcomponent will be governed by the same policies that the Bank has adopted in other programs in the water and sewerage sector.¹³ Financing for preventive works will be complemented with other public and/or private institutions to mitigate the impact of natural disasters in the coastal area, particularly el Niño, such as slope stabilization, protection of river banks, canals

¹⁰ As described in Chapter I, Section B, the achievements of PMRC I in the area of investments were important for its success.

¹¹ The majority are projects included in the operating plans prepared during PMRC I.

¹² The PMRC has a management strategy for these services to resolve aspects of administration, collection and final disposition in an integrated fashion.

¹³ Project II will coordinate its activities with similar water and latrine projects under the FISE III program in Ancón in San Lorenzo and Colonche in Santa Elena, which are the only two parishes where the two programs coincide.

and estuaries and drainage works for populated areas that suffer from flooding. Effective participatory plans for pollution prevention and control will be prepared, and cofinancing provided for investments to promote better land-use planning and environmental quality along the coast will also be cofinanced. The investments will form part of the agreements with the municipalities and communities and will be identified in the operating plans of the special management zones.¹⁴

b. Productive investments (US\$1.2 million)

- 2.16 Based on the successes of Project I, Project II will cofinance productive projects to improve the standard of living in the following areas: tourism, the recovery of ecosystems, small-scale fishery management, raising and repopulating molluscs and fish, and other projects included in the development plans of the special management zones. Project II will support community concessions for Afro-Ecuadorian communities in mangrove swamp areas such as the Cayapas-Mataje Mangrove Ecological Reserve (REMACAM).

C. Cost and financing

- 2.17 Project II will cost a total of US\$14.4 million, with the Bank financing US\$12.4 million (86%). The local contribution will be US\$2 million (14%), which will come from the central government, the communities, the private sector, and beneficiary municipalities.¹⁵

¹⁴ The community and prevention projects will be based on an agreement between the municipality and Project II. The agreement will establish the commitments of the parties regarding community and preventive investments and institutional strengthening on the local level.

¹⁵ As in the case of Project I, it is expected that the local contribution will be higher than anticipated, since the communities, NGOs, the private sector, users' groups and even the national government will contribute to execution of Project II. A significant portion of the contribution will be in kind.

Table 2
PROJECT II TOTAL COST AND FINANCING
(in US\$ thousands)

Investment category	IDB	Local	Total	%
I. Administration and follow-up	633	1,440	2,073	14.40
a. Administration of Project II	233	1,440	1,673	
b. Evaluation and monitoring	400	0	400	
II. Components of Project II	11,643	0	11,643	80.85
1. Coastal management	2,511	0	2,511	17.44
a. National coastal management	177	0	177	
b. Local coastal management	2,334	0	2,334	
2. Information for coastal management	2,419	0	2,419	16.80
a. Information systems	164	0	164	
b. Preinvestment studies	1,806	0	1,806	
c. Human capital investments	449	0	449	
3. Investments along the coast	6,713	0	6,713	46.62
a. Community and preventive investments	5,513	0	5,513	
b. Productive investments	1,200	0	1,200	
III. Unallocated	0	560	560	3.89
IV. Financial costs	124	0	124	0.86
V. Inspection and supervision (up to 1%)	124	0	124	
TOTAL	12,400	2,000	14,440	100
Percentage by source	86.11	13.89	100	

* Interest and the credit fee will not be financed from the second phase. They will be paid directly by the Ecuadorian Government through the National Treasury Department.

2.18 The main investment categories are described below:

- a. **Administration and follow-up (US\$2.1 million).** This item represents 14.40% of the total cost of Project II and the administration category and includes current Project II expenditures financed from the local contribution. It also covers financing for incremental operating costs for the PMRC, which includes the expenses of the Executive Directorate, the conservation and surveillance units, the special management zones, and the zone committees that are unrelated to honoraria. The evaluation and follow-up category includes external auditing and the midterm and final evaluations.
- b. **Project II components (US\$11.6 million).** This category represents 80.85% of the total cost of Project II and will chiefly finance community, preventive and human capital investments. It will finance activities such as preinvestment, civil works, equipment, labor, information systems, consulting services, training, workshops and technical assistance.
- c. **Unallocated (US\$560,000).** Represents 3.89% of the total and includes cost escalation and contingencies related to components. When the AOPs are being

prepared, some eligible activities may crop up that were not originally provided for, such as the adoption of a plan of action to generate own resources by the PMRC and over costs in some investment categories.

- 2.19 Apart from the local contribution, the Government of Ecuador will pay the interest during Project II and the credit fee, freeing up additional resources. The local counterpart will not be the sole responsibility of the government, through its fiscal contribution to Project II current expenditures during execution; the communities, municipalities, the private sector and NGOs will also contribute substantially to the projects financed. Their contribution ranges from 10% to 30% of the total cost of each project, as a minimum. Therefore, the local contribution will be larger than established in the cost table.
- 2.20 The Bank will finance Project II out of the Ordinary Capital (OC), using the Single Currency Facility in United States dollars, with a term of 25 years, a LIBOR-based interest rate, and a grace period of five years. The interest and the credit fee will not be financed from Project II resources; they will be covered out of a government contribution from the National Treasury Department, as additional support for Project II. The interest rate, credit fee, and inspection and supervision fee mentioned in this document are established pursuant to document FN-568-3 Rev. and may be changed by the Board of Executive Directors taking into account currently available information and the respective recommendation by the Finance Department. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed 1%.¹⁶

¹⁶ In no case will the inspection and supervision fee exceed, in a given six-month period, the amount that would result from dividing 1% of the loan amount by the number of six-month periods in the original disbursement period.

III. EXECUTION OF PROJECT II

A. Borrower, guarantor and executing agency

- 3.1 The borrower will be the Republic of Ecuador. The executing agency will be the Office of the President of the Republic, to which end the executing agency has drawn up the Coastal Resources Management Program (PMRC).

B. Project execution and administration

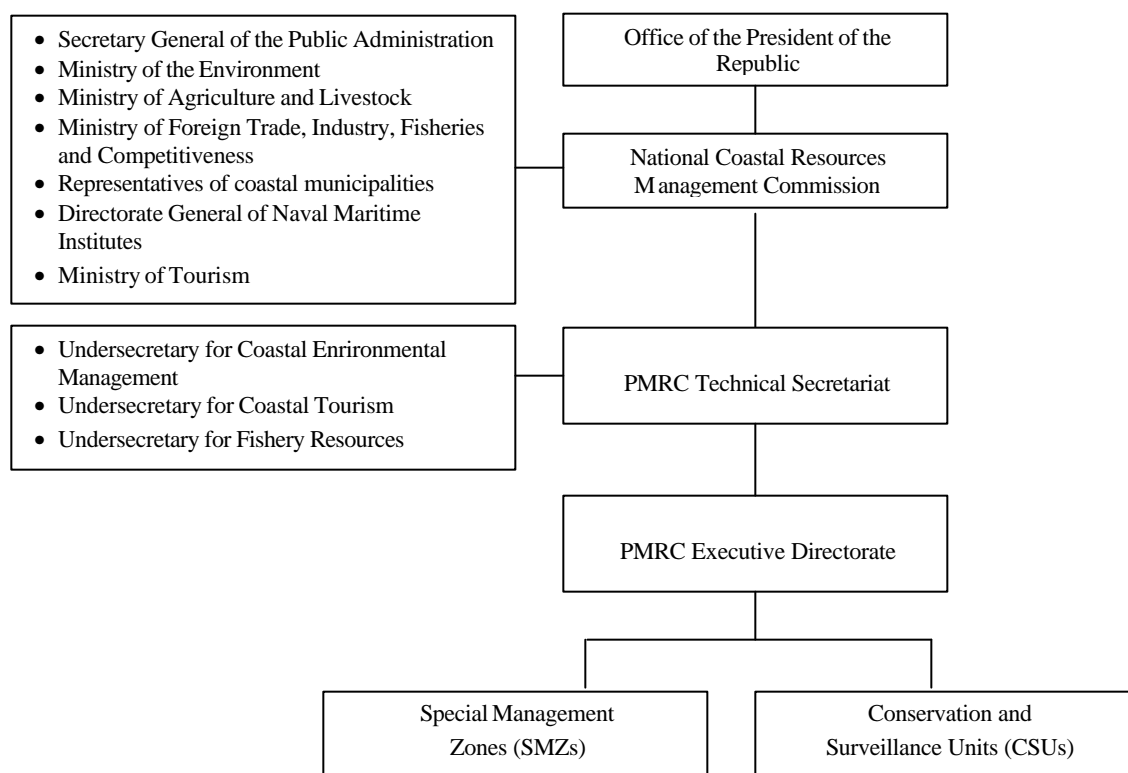
- 3.2 Although execution will be similar to that of Project I, more active participation by the municipalities is anticipated under Project II. Although municipal representatives participated in some zone committees under Project I, under Project II the municipalities are expected to participate more actively and directly, on account of the changes in the legal framework and the training and institution-building to be provided.

1. Organization for Project II execution

- 3.3 The institutional structure of the Coastal Resources Management Program (PMRC) was modified pursuant to Executive Decree 3399 of 1 June 1992, to enable the PMRC to execute Project I. In the same year, regulations were issued establishing the organizational structure and functions of the different players. The PMRC was created as a body reporting to the President of Ecuador, with decentralized economic management and headquarters in the city of Guayaquil. The mandate of the PMRC is to conserve, restore, protect and sustainably develop the coastal resources of the provinces of Esmeraldas, Manabí, Guayas and El Oro. The PMRC structure is described below.
- 3.4 The CNMRC is the senior body in the PMRC. Its function is to promote national policy on coastal issues and encourage coordination among governmental agencies with jurisdiction in coastal resources and activities.
- 3.5 The TS is responsible for technical execution of Project II, including approval of AOPs, management plans, creation or elimination of special management areas, authorizing the Executive Director to sign agreements and contracts needed for Project II administration and submitted for consideration by the DE. In addition, the TS is responsible for monitoring, follow-up and evaluation of projects to be executed under Project II. The TS will have the support of a technical coordinator whose main function is to ensure that the TS has the elements it needs to perform its assigned duties. **Appointment of the TS technical coordinator will be a condition precedent to first disbursement.**

- 3.6 The Executive Directorate developed a good experience in administering Project I and efficiently performed the tasks of contracting goods and services, contract administration, timely accounting for expenditures and presentation of reports to the Bank, including Project I financial statements. Project II will therefore tap this experience by continuing to use the Executive Directorate as the executing unit. However, given the current situation, including the delay in approval of this operation, budget constraints, and changes in PMRC leadership, the executing unit has lost key personnel. The basic personnel needed to complement the executing unit are an executive director, experts in fishing and ocean farming, tourism, community investment, disaster prevention, and procurement, and an accountant. **Evidence that the executing unit core staff has been complemented is a condition precedent to first disbursement.**

Basic organization chart of the PMRC



- 3.7 The administrative and financial directorate is responsible for Project II's accounting and financial systems, obtaining disbursements and accounting to the Bank. It will also be responsible for supporting the audits and preparing periodic reports for the Bank and for the local auditors. The administrative and financial directorate, jointly with the legal advisory office and the technical directorate, establishes procurement teams and advises and makes recommendations to the

Executive Directorate in this field. The legal advisory office is responsible for preparing agreements and contracts with the subexecuting agencies.

- 3.8 The special management zones are operating centers along the coast, which are responsible for planning and participative execution of integrated coastal management. Each zone has a zone committee that is governed by internal regulations. The institutional system of the zones is composed of the zone committee, with representatives drawn from communities and legally-constituted groups of users of coastal resources and local authorities (municipal representatives), whose operation is supported by a small PMRC coordination office. There are currently six zones and the inclusion of Puerto Cayo-Manta and northern Esmeraldas as special coastal management zones has been applied for, which will be incorporated under Project II. The six existing zones cover 10 of the 32 municipalities along the coast.
- 3.9 The functions of each zone committee include: (i) promoting cooperation and coordination of public and private institutions, users' groups and communities; (ii) guiding the planning, selection and preparation of projects and their control and follow-up; (iii) approving the annual management and operating plans for the zone; (iv) settling disputes and problems that affect environmental quality; and (v) coordinating with the conservation and surveillance units and supporting actions to promote observance of the laws and other rules applicable to coastal management.
- 3.10 The conservation and surveillance units (CSUs) are coastal management bodies established by local authorities and are responsible for monitoring the use of coastal resources. They are coordinated by the port authorities and their members are drawn from the public sector responsible for fisheries, forestry, health and tourism and the municipalities. The CSUs control the use of resources along the entire Ecuadorian coast, with their areas of activity based on the jurisdiction of the port authorities. The technical directorate of the PMRC provides technical assistance for legal matters and operations and support for inspection and patrolling activities. Each CSU has an official who acts as secretary and coordinator.

2. Execution

- 3.11 The Project II annual operating plans (AOPs) constitute the frame of reference for carrying out activities. The AOPs are approved by the TS and subject to no objection by the Bank, and are then presented to the CNMRC for ratification, and are based on the operating plans of the special management zones, to which end the Executive Directorate sends guidelines indicating priorities and eligible activities duly approved by the TS. The special management zone offices, with support from the technical directorate, coordinates the evaluation of the previous plan and preparation of the plan for the following year, for TS approval. The zone committee approves the AOP, which is then integrated into the Project II operating plan and

sent to the TS for consideration. The draft AOP and the baseline data for year one have been prepared by the Executive Directorate, with support from consultants and in consultation with the communities, through the zone committees. The next AOPs and baselines to measure impact in the subsequent years are being prepared by the Executive Directorate with assistance from a consulting firm, financed from ATN/JF-7706-EC. The consulting firm has submitted draft AOPs for the following years, as well as the baseline, and they are being reviewed by the borrower.

- 3.12 The draft AOP for the first year includes terms of reference for the consultants to be contracted to execute the projects, a breakdown of the training plans and their respective budgets, and the designs of the works, technical specifications and projects for year one of Project II. The draft AOP has been reviewed by the project team which found it adequate for beginning Project II. As established in the Operating Regulations, the subsequent AOPs will be presented to the Bank for approval.
- 3.13 The Executive Directorate will be responsible for execution of the community and preventive projects upon TS approval, to which end it will establish agreements with organizations, local governments and beneficiary communities. The agreements take the form of letters of commitment or execution agreements, that include: (i) the role and responsibilities of the beneficiaries, including their counterpart contributions; (ii) the role and responsibilities of the contractors; and (iii) the work and financing schedule and the project supervision plan.
- 3.14 The eligibility criteria require the municipalities to: (i) be part of an SMZ; (ii) have demonstrated an interest in establishing bylaws within their jurisdictions for the land-use planning of their coastal resources or in assuming responsibilities that had previously been centralized (municipal environmental management units, directorate of tourism); and (iii) be willing to sign an agreement with the executing agency for at least two years, which establishes the main municipal commitment of turning the results of cooperation with Project II into bylaws, establishing follow-up mechanisms to ensure compliance with the rules and demonstrating that they can furnish the counterpart for financing the works and activities included in the Operating Regulations. **Signature of agreements with at least two municipalities is a condition precedent to the first disbursement.**¹⁷

3. Operating Regulations

- 3.15 The main components of the Operating Regulations (ORs) for Project I will be maintained for Project II. The project team revised and suggested changes in the draft ORs for suitable execution, which have been incorporated. **Implementation**

¹⁷ Of the 10 municipalities expected to participate in Project II, six have been contacted, have established their municipal environmental management units, and have indicated their willingness to sign the participation agreements. Four municipalities are expected to participate in the first year.

of the ORs for the project, as agreed by the executing agency and the Bank in advance, is a condition precedent to the first disbursement.

- 3.16 The main changes in the ORs for Project II involve spelling out the financing for the following activities: (i) the studies of the municipalities and other beneficiaries; (ii) education for the coastal population on sanitation issues affecting the coast; and (iii) projects that help to improve the quality of life and the environment and alleviate poverty along Ecuador's coast.
- 3.17 Other changes in the ORs refer to the selection of productive projects, which will give priority to projects that are: (i) located in areas with tourism potential; (ii) reduce the exploitation of overexploited natural areas; (iii) protect areas that are important from the standpoints of ecology, culture or scenery; (iv) promote zoning of the coast; (v) generate income for the coastal population, especially among the poorest; (vi) help to complement the income of the coastal population that has been reduced owing to bans, thus giving them an incentive to respect the bans; and (vii) the beneficiary has signed an agreement establishing its responsibilities and rights, including its commitment to adequately operate and maintain the facilities financed and to use them for the purpose for which they were built. In all cases, the projects must be based on the minimum-cost solution.
- 3.18 Additional criteria are established for the sanitation works to ensure the sustainability of the service.¹⁸ For potable water works, the agreements with the users' board and the municipalities will include commitments to: (i) establish tariffs and other income to cover the operating, administration and maintenance costs of the system; (ii) establish a system of savings to obtain sufficient funds to replace equipment; and (iii) the users' board will take the necessary measures with respect to users who fail to pay for their water. In the case of solid waste, the municipalities undertake to generate the resources necessary to replace the project equipment. In the case of a latrine, the user undertakes to maintain it and to build a new one when that becomes necessary.
- 3.19 New minimum percentages are established for the beneficiary counterpart for different projects: (i) 20% in general; (ii) 10% for preventive works; and (iii) 30% for sanitation works and productive works.
- 3.20 The general selection criteria for projects financed under the program include: (i) projects that match the priorities identified in the management plans of the special management zones, approved by the zone committees and the TS;

¹⁸ In the case of the potable water projects, the arrangement commonly used is to open a savings account in which part of the tariff is regularly deposited, with the rest used to cover operating, maintenance and administration costs. In the case of solid waste, the municipalities undertake to generate the necessary resources out of different sources of municipal income to replace the project equipment. For latrines, the user undertakes to maintain the latrine and to construct a new one when that becomes necessary.

(ii) projects that avoid or reduce negative impact and degradation of coastal ecosystems and promote the sustainable use of resources; (iii) projects that are socially, economically and technically feasible, that have been formally accepted by institutions, users' groups or communities that act as executing agencies; (iv) projects for which the necessary human resources are available for execution, including the means and support staff to be provided by Project II; (v) projects that increase the information available and local capacity for planning, execution and control of management, through local participation and self-management; (vi) projects that contribute to zoning and sustainable activities involving coastal resources and the development of the institutional capacity to carry out successful integrated coastal management; and (vii) projects that are self-sustainable.

- 3.21 In addition, the ORs establish specific criteria for each type of activity, including policy development, institutional development, coastal information system, preinvestment, human capital, projects along the coast, including community projects, disaster prevention projects and public and private investments. The specific criteria include: (i) projects that promote the cofinancing of works to benefit the community, that contribute to the sustainable development of coastal resources, to improving the quality of life of the local inhabitants, to zoning, or to activities in the coastal belt; (ii) projects that help to prevent or mitigate the effects of natural disasters; and (iii) priority projects of coastal municipalities that facilitate integrated coastal management.

C. Procurement

- 3.22 Bids for works costing US\$1 million and over, goods for US\$250,000 and over and services for over US\$200,000 will require international publicity. Price may be used as a criterion for the selection of consulting services, as provided in document GN-1679-3. When the selection criterion is based on a combination of the best price and the best technical proposal, the weight of the price may not exceed 30%. Bids below these thresholds will be carried out in accordance with ad hoc procedures agreed on with the Bank for Ecuador.
- 3.23 Bidding and disbursement processes will follow Bank standard regulations. A list of procurements and contracts is given in Annex III. The large number of bids reflects the nature of the program, which involves small works and the procurement of inexpensive goods and services, all of which will be executed within five years. It was therefore impossible to combine procurements into larger groups.

D. Execution period and disbursement schedule

- 3.24 The disbursement period for the program will be five years after the loan contract becomes effective. The execution schedule has been projected based on the experience in Project I, the operating program for the first year revised by the

project team, and the terms of reference for the consultants to prepare the operating programs for the subsequent years.

Table 3
DISBURSEMENT TABLE
(in US\$ thousands)

Financing	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	1,712	2,755	3,406	2,498	2,029	12,400
Local	294	411	483	482	330	2,000
Total	2,006	3,166	3,889	2,980	2,359	14,400

E. Retroactive financing

- 3.25 The government, using its own resources to maintain the continuity of the PMRC, will finance activities under Project II prior to the time the loan is declared eligible. The Bank may recognize as part of the local counterpart expenditures of US\$200,000 made during the 18 months prior to approval of the operation by the Board of Executive Directors. The project team has reviewed the nature of these expenditures and considers them eligible, since they are in accordance with the Operating Regulations.

F. Follow-up and evaluation

1. External auditing

- 3.26 External auditing of Project II will be performed by a firm of independent auditors acceptable to the Bank, following the Bank's policies and procedures (documents AF-100 and AF-300). The firm will be contracted under the Bank's bidding procedures for external auditors (AF-200) and in accordance with the guidelines established in the terms of reference for external auditing of Bank-financed projects (AF-400), with the Bank's approval being obtained in advance. **The external audits will be financial, operational and technical in nature, requiring the presentation of a report on the program's financial statements within 120 days after the end of each fiscal year. Interim financial, operational and technical auditors' reports will be presented within 60 days after the close of each semiannual period, as established in document AF-400.** Technical audits are to include a determination of compliance with indicators and targets set in AOPs and the Project II logical framework. The auditing costs are included in Project II and will be financed from the proceeds of the Bank's loan.

2. Monitoring of Project II

- 3.27 For supervisory purposes, the Executive Directorate will, through the TS, present to the Bank's satisfaction annual reports including information on the result of productive investment facilitated by the program and the impact on natural resources (changes in mangrove coverage, coastal belt, quality of sanitary services, approval of bylaws to clean up the coast by the municipalities, water quality, inshore fisheries, and community participation, particularly by women's groups).
- 3.28 The Executive Directorate will, through the TS, answer to the Bank for the program's financial administration and will be required to: (i) maintain separate, specific bank account for the loan proceeds and the local counterpart; (ii) present disbursement requests and justifications of eligible expenditures; (iii) implement and maintain adequate systems for contract administration, financial administration and internal control of loan proceeds and the local counterpart, in accordance with Bank requirements; (iv) prepare and present financial reports on the project and other financial reports required by the Bank, including the consolidated financial statements; and (v) maintain an adequate system for filing the supporting documentation on expenditures for verification by the Bank and the external auditors.
- 3.29 The Bank will supervise program execution through the Bank's Country Office in Ecuador. At the end of the AOP for the first year, the Bank will send an administrative mission to review progress in the plan, compliance with the goals, the AOP proposed for the second year and the baseline for that year, and successively for subsequent years. The data for following up on the AOP for year one are available and will be fine-tuned with the support of the consulting firm that will prepare the plans for the following years. A revolving fund will be used and the executing agency will present semiannual reports on the status of the fund within 60 days after the end of each semiannual period.

3. Midterm and final evaluations

- 3.30 The executing agency will present the following reports to the Bank's satisfaction so that the midterm and final evaluations can be performed:
- a. The situation at the start of Project II, which will include the methodology to be applied to compare the annual data and estimate the impact of the activities in the project's components. To supplement the baseline for the first year, the baseline for the subsequent years has been prepared by the Executive Directorate, using information collected under Project I, with the support of a consulting firm contracted with funds from ATN/JF-7706-EC. With the subcomponent on information for coastal management, a system will be established to maintain information for the midterm and final evaluations.

- b. The updated situation during the program, when 40% has been disbursed for the midterm evaluation and 90% for the final evaluation, on progress in the projects and their impact, including: socioeconomic data on the beneficiaries of the investment projects, the coastal zoning process by the municipalities, recovery of the mangrove ecosystem, ecotourism activities, sanitation works and management of protected areas, broken down by gender and ethnic group.
- 3.31 The Bank loan includes financing for the midterm and final evaluations. The midterm evaluation will be performed when 40% of the loan has been disbursed and will include some of the parameters used for phase one, and the final evaluation will be performed when 90% of the loan has been disbursed. The design of the baseline and the compilation of information have been included in each AOP, which will facilitate the evaluations. The information will also permit an ex post evaluation to be performed of the program's impact, once it has been completed. **The midterm and final evaluations are conditions during execution of Project II.**
- 3.32 The borrower and the Bank considered it important to conduct an ex post evaluation of Project II, after a reasonable time to allow its benefits to be felt. The information for that task will be compiled using the information system financed under Project II. The borrower will finance the costs of the ex post evaluation. Key aspects of the ex post evaluation will include changes in the capacity of participating municipalities to operate in the area of coastal resource management. The executing agency will gather, file, and keep all information, indicators, and parameters, including the AOPs, the midterm reviews, and the final evaluation, in order to enable: (i) the Bank to prepare the Project Completion Report (PCR); and (ii) the Bank's Office of Evaluation and Oversight (OVE) to conduct ex post verification of the impact results of the program, if it so decides, pursuant to the policy guidelines set out in document GN-2254-5.

IV. FEASIBILITY AND RISKS

A. Institutional and financial feasibility

- 4.1 Project II will be executed in a similar manner to Project I, which was considered adequate and achieved the vast majority of its physical goals, despite an unfavorable political and economic climate. Execution of Project II will benefit from the lessons learned from Project I and has some differences that will strengthen its execution capacity. Project II will have a National Coastal Resources Management Commission (CNMRC), with a role focused on promoting national policies on coastal issues and encouraging coordination among government agencies with jurisdiction over coastal resources and activities, and an TS that reports to the Ministry of the Environment, with greater operating capacity to design policies and actively direct technical matters, which was not the case during Project I.
- 4.2 This operational and leadership capacity have been demonstrated by events, through frequent meetings to develop the work of the PMRC and process Project II, which helped to maintain the credibility of the system with the stakeholders and raised the priority of the PMRC in the new government.
- 4.3 The financial feasibility of the local contribution is assured, since despite the fiscal crises, Project I received it in a timely fashion. The local contributions for Project II are similar and no difficulties are anticipated. Project II seeks the sustainability of the works and processes financed, as well as the institutional and financial sustainability of the PMRC.
- 4.4 To complement the fiscal resources and based on participation by the players in the PMRC, during the first two years of execution of Project II, plans will be adopted and steps will be taken to enable the PMRC to generate its own resources to finance part of its operating costs. These studies were financed under ATN/JF-7706-EC and the executing agency is currently reviewing the results.
- 4.5 The study under way seeks to design a plan of action jointly with the players in the PMRC, which could include a complementary structure for the program to provide better financial and institutional feasibility and a political commitment to continue the program after the funds for Project II are used up. Potential sources of income for the PMRC have been identified, such as donations, contributions from local institutions and the sale of PMRC services.¹⁹

¹⁹ The PMRC has the potential to earn funds from the sale of services. It is seen as the best agency, thanks to its methodology and presence in the coastal zone, for channeling resources to that zone.

- 4.6 The different schemes will be subject to a legal, institutional and financial analysis to determine their feasibility. With Project II, by the third year, the Executive Directorate will be in a position to cover about 25% of its operating costs and 50% by year four. The estimated resources generated to cover operating costs do not exempt the borrower from the commitment to furnish the local contribution. During a mission to launch the program, the executing agency and the Bank will review progress in the plan of action and make whatever recommendations are warranted.
- 4.7 Last, with regard to the projects themselves and as the Project I evaluation indicated, the beneficiary generated part of the cofinancing and commitments were made to adequately operate and maintain the projects. The obligations established in the ORs, execution and supervision of the projects financed by the PMRC, and the heightened awareness that governance is beginning to produce among the beneficiaries have conditioned these results. For Project II, the same direction will be maintained in the commitments to the beneficiaries and governance will be strengthened.
- 4.8 As a condition for project financing, the Executive Directorate will sign agreements and contracts with the beneficiaries establishing, among other things, the commitment to cofinance the project and adequately operate and maintain the installations and equipment. The Executive Directorate will continue and step up periodic inspections to verify compliance with these obligations. Some changes made in the ORs for Project II will help to strengthen this aspect. In the case of sanitation works, a new condition is included to the effect that the beneficiary will commit to generating resources to replace obsolete works. The incentive structure has been strengthened to require differentiated cofinancing commitments, depending on the nature of the projects.
- 4.9 In addition to adequate maintenance of the works financed under Project I and the resources that the PMRC can generate on its own, the institutional sustainability of the PMRC rests on its utility for local entities and the national government. From the standpoint of national priorities, the government through its contribution to the PMRC, has demonstrated the priority and importance it attaches to integrated coastal management and the need for this approach to be consolidated and sustainable. Also, owing to the decentralization policy and the municipalities' environmental responsibilities, they and other local organizations view the PMRC as an advisory body for carrying out their coastal management functions. The PMRC is in a position to play this role, not just on account of its demonstrated technical capacity, but also because of the institutional scheme it operates under, which permits active participation by agents involved in integrated coastal management, including the municipalities (governance).

B. Technical feasibility

- 4.10 The technical feasibility of the proposed project is based on the experience in executing Project I. Specifically, the PMRC has valuable working experience in the types of investments and activities planned. The works are generally small and inexpensive, and all solutions will be least cost. The PMRC's institutional structure provides the following mechanisms and resources to guarantee the technical feasibility of the investments and activities for coastal resource management:
- a. A local planning process exists in each of the six continental special management zones, which contributes to the high levels of awareness and active participation by users' groups in coastal management activities. All the zones have formally adopted management plans. The projects to be developed are compatible with their policies, the key areas of management and the activities established in their plans.
 - b. A network of trained coordinators and local specialists exists in the field, who have benefited from training activities supported by the PMRC and have extensive experience in organizing and executing the types of investments and activities included in Project II. The working relations established in the first phase assure the technical feasibility of the project.
 - c. The AOPs constitute the obligatory reference framework for carrying out PMRC activities, regardless of the source of financing. The plans are prepared with the zone committees of the special management zones. One key requirement in preparation of the AOPs is the evaluation of the previous plan, a process that is carried out with the zone committee.
- 4.11 This second phase of support for the PMRC stresses activities in response to shortcomings and lessons learned in phase one, particularly regarding progress in national coastal resource management policies. The program includes a specific component for this purpose, in which promotion and public and institutional backing for the approval and implementation of policies will be determining a factor in execution. Focusing the CNMRC on promoting integrated coastal management policies and strategies and encouraging inter-institutional coordination ensures that the decision-making levels will be fully informed and supported by the process.
- 4.12 The Project II approach is to promote and facilitate arrangements for cooperative management that will permit more active participation by the municipalities, civil society and the private sector. The local management component will facilitate involvement by these key actors in the integrated coastal management process. The PMRC has established working relations with various coastal municipalities that have joined the zone committees and the conservation and surveillance units. Project II will work through agreements with coastal municipalities to develop

bylaws and good practices in integrated coastal management—an activity in which the PMRC already has some positive experiences. This initiative will be developed with the municipalities that already have capacity (municipal environmental management units) and a working relationship with the PMRC. The work with the other coastal municipalities will be expanded, once the progress made has been evaluated.

- 4.13 Component II of the proposed Project II includes an important subcomponent for training, education and communications in integrated coastal management. It recognizes that expansion of the integrated coastal management to the entire continental coastline will require more trained personnel in the public and private sectors. Training and applied research should result, in the final years of the program, in projects of higher technical quality that are more cost effective.

C. Socioeconomic feasibility

- 4.14 Ecuador's continental coastal region is formed of four provinces (Esmeraldas, Manabí, Guayas and El Oro, from north to south) and covers 1,256 km of open coastline, with stretches of sandy beaches, magnificent views and great historical and ecological significance. These qualities, coupled with an expanding road system, have led to the most recent development boom (tourism and coastline urban developments). This incipient boom in construction increases the pressure exerted by the resident population in the coastal provinces, which has quadrupled since 1950. The coastal zone has been a pillar of the national economy over the last 30 years. Bananas, shrimp, tourism and oil ranks are the four largest income earners, all of which are closely linked to use of coastal resources and environments.
- 4.15 In general, coastal development has been poorly planned and regulated. As a result, expensive structures (hotels, port facilities, roads, sea walls) are inappropriately located; the scenery has been unnecessarily spoiled; public access to the beach has been reduced and eliminated in some cases, entailing significant opportunity costs deriving from losses in the tourism industry owing to bad development. The most dramatic economic, social and ecological consequences of poor coastal development are felt during el Niño, when rains and high tides cause flooding, landslides and erosion. The 1997-1998 el Niño caused damage to public and private infrastructure on the coast in excess of US\$2 billion.
- 4.16 One outstanding feature of the Ecuadorian coast is the presence of numerous estuaries with their associated mangrove swamps. The goods and services that these areas provide have been estimated by Ecuador's Auditor General as US\$13,000 per ha. The degradation and destruction of the mangroves, mainly owing to the construction of shrimp boats, is widely perceived as one of the main symbols of environmental degradation of the coast. The current trend, however, is to build

shrimp boats inland, on private property, to ease pressure on the remaining mangrove swamps.

- 4.17 Fish resources are an important source of food, income and employment along the coast. Inshore fishermen include the poorest of the poor. Fish stocks and the shellfish caught in the estuaries on which these fishermen depend to survive have declined dramatically in the last 40 years. There is open access to the fishery in Ecuador, with no concessions or licenses for areas or species and there is no regulation of the volumes caught.
- 4.18 The principal benefits of Project II will flow from better local capacity to plan and manage the sustainable development of coastal resources, a responsibility that will be transferred to local governments under the decentralization strategy being put forth by the country. Improved planning will lead to a more rational, participatory and coordinated allocation of resources, underscoring their sustainable use, protection and conservation.
- 4.19 The coastal area holds important appeal for national and international tourists, and contributes income for local populations. The benefits deriving from planning and management actions by municipalities as a result of activities to strengthen local skills in integrated coastal management and planned investments under Project II in this sector will create conditions for a “healthy” tourist industry. This will in turn attract additional national and international tourists and appropriate investment levels, thus increasing the sector’s contribution to the national economy and the welfare of local populations.
- 4.20 In addition, land planning and management activities under Project II, as well as activities to prevent flooding and erosion, will have a substantial economic benefit by avoiding or mitigating damages to infrastructure, crops, and personal effects as a result of natural disasters.
- 4.21 Productive community projects linked to conserving environmental quality will rationalize the use of coastal resources and improve living conditions for needy coastal communities. These projects and the related training will provide opportunities for local governments and communities to acquire practical experience in decentralized planning and the implementation of small-scale, low-cost development initiatives.
- 4.22 Economic internal rates of return were estimated for the standard projects in component III (community investments) referring to sanitation, management and reforestation of the mangrove swamps and some physical works outlined below.

1. Basic sanitation

- 4.23 The proposed investments in basic sanitation (potable water, trash disposal and on-site sewage disposal) are justified by the expected benefits for health and savings

(in time and individual treatment of water and waste) and because the per capita investments are reasonable. The PMRC's sanitation strategy includes education in sanitation and hygiene and training in operation and maintenance. The community is expected to participate heavily, with the beneficiaries contributing directly to construction and operation of the systems through users' associations.

- 4.24 The cost of the program to build latrines is US\$708,000 and at least US\$212,000 (30%) of that figure will be contributed by the 18 beneficiary communities. Minimum cost analysis of alternatives and cost-efficiency criteria were used in the design. To select the sites, distribution criteria established by the PMRC were applied including: the beneficiary areas have adequate housing density for the land they occupy; to the extent possible, the works will improve water quality in adjacent receiving bodies; and there are no other programs to provide this kind of infrastructure in the area.
- 4.25 The investments in potable water include reconstruction of the water intake in the Estero de Plátano system and the layout of the conveyance system and the residential system in Loma Alta. The two water projects account for 4.6% of the total investments in the community investment subcomponent. The ORs establish as a condition that the sanitation works must fall within acceptable cost parameters, normally US\$100 per beneficiary.
- 4.26 According to the data for current consumption levels and the amounts paid for trucked-in water (US\$11.2 a month for an average family of five to buy 200 liters of water a day, which will be provided by the new systems), the 10-year benefits will mainly come from the replacement of the old water-source systems by cheaper mechanisms and a more abundant supply. The 10-year cost flow comprises the initial investment, including the local contribution and the estimated cost of operating and maintaining the system, as well as replacement of the pump after five years of operation (each family will have to pay an estimated US\$2.7 a month).

Table 4
RESULTS OF THE QUANTITATIVE ANALYSIS

Project	Population	Investment (US\$)	NPV (12%) (US\$)	IRR%
Estero del Plátano	750	72,000	10,558	16.5
Loma Alta	1,000	126,000	54,019	25.7

- 4.27 The projects for solid waste management will: (i) complete the work begun under the previous operation, such as construction of a chimney to carry off the gases from the sanitary landfill at Jambelí and construction of drainage for leachates and chimneys to remove gasses at the landfill at San Pedro-Valdivia; and

(ii) construction of five new solid waste systems. The estimated costs will be US\$240,000 or 9.5% of the community investment subcomponent. The economic benefits of these works lie in avoiding the costs of pollution and vectors that carry diseases.

2. Construction of parking areas

- 4.28 Two parking lots will be built, one for automobiles and one for busses, at the Crucita, Playas, Salinas and Atacames resorts. The economic benefits lie in the better experience of tourists who will enjoy a more orderly and less chaotic environment, which should lead to an increase in the number of visits and a multiplier effect on the economy of the resorts. The analysis of the financial returns from this activity started by identifying the opportunity cost of parking, based on the cost of renting existing parking spaces (for both busses and automobiles) and the costs of construction, operation and maintenance of the parking lots. The analysis was performed for a five-year horizon and found that the rate of return was positive. The IRR was 24% and the NPV was US\$19,000, discounted at 12%, for a total investment of US\$170,000.

3. Reforestation of mangrove swamps

- 4.29 The shellfish harvest in the mangrove swamps is a lucrative source of income, accessible to poor women living in the coastal communities. The analysis of the projects to reforest 250 hectares of mangroves is based on the economic benefit from the harvest of conchs and their sale, starting in the eighth year. It is assumed that 45 conchs can be gathered per reforested hectare a day, starting in year eight. The estimated NPV is US\$138,519 and the IRR is 23.9%. These estimates are based on 15-year flows. The average estimated cost of reforestation is US\$500 per hectare.
- 4.30 However, the total benefits of reforesting the mangrove swamps are more long term. International experience indicates that the long-term economic benefits are higher than the estimates performed.

D. Environmental and social feasibility

- 4.31 Rapid population growth creates higher demand for services and the infrastructure needed to provide an adequate supply of water, sewerage and solid waste disposal.²⁰ Poor environmental sanitation coupled with scant control over industrial effluents and the indiscriminate use of agricultural chemicals contribute to the degradation of water quality, particularly in the estuaries, with serious consequences for health.

²⁰ In the coastal municipalities, just 29.9% of households are served by a trash collection system and just 21.9% have access to potable water in their homes. The national percentages are 43.2% for trash and 38.2% for water (INFOPLAN, Local Development Atlas, 1999).

- 4.32 The degradation of the natural capital base is linked to deterioration in the quality of life and to a sharp increase in poverty in the zone. The poverty rate in the coastal cantons where Project II will focus is an estimated 68%,²¹ which is higher than the national average of 60%.²² The pressure from disorderly development and poverty is the greatest threat to using resources sustainably in a way that is compatible with environmental quality and the quality of life.
- 4.33 Generally speaking, Project II will have a positive environmental impact associated with: (i) greater national and local capacity in integrated coastal management; (ii) specific activities for prevention and restoration of coastal marine ecosystems; (iii) compilation and systemization of information on trends in coastal marine resources and ecosystems; and (iv) investments to improve environmental sanitation and reduce the vulnerability to natural disasters of the population living on the coast. Specific indicators have been selected relating to municipal capacity for environmental management, mangrove tree coverage, the impact of sanitation works on health, and the impact of preventive works on the population served, and the necessary data will be compiled as part of Project II follow-up.
- 4.34 Since the operation is intended to improve the management of coastal resources, it will bring significant social and environmental benefits for Ecuadorians living on the coast. The components will improve the quality of life, though activities involving land-use planning, training in local management, and investments in small public works to prevent natural disasters and inexpensive basic services.
- 4.35 The possible environmental impact during the construction of the small works (gabions to control erosion and flooding, latrines, potable water systems, parking lots) will be limited in scale and duration. An analysis of the works included in the AOP for year one indicates limited impacts associated with the installation of chimneys to draw off methane from sanitary landfills, potable water systems for towns of under 5,000, and the construction and location of latrines in the coastal zone. The Project II ORs include environmental technical specifications for the projects to mitigate these effects (mainly erosion, noise and dust).
- 4.36 The investments in basic sanitation and in preventive works will improve the living conditions of rural dwellers. Reductions are expected in the incidence of water-borne diseases and in flooding, with the associated displacement of families. Following the policy established in OP-745, the water supply works will be built taking account of the existence or inclusion of adequate sewage treatment solutions.

²¹ This index does not include the urban areas of Guayaquil, Manta, Esmeraldas or Machala, since Project II will carry out the bulk of its activities outside those areas. The poverty index in the zone is higher than the reference index estimated by SDS/POV of 57% according to a methodology based on the number of people.

²² Integrated System of Social Indicators of Ecuador, 2000.

- 4.37 As for the social impact, the program is targeted to towns with populations of under 5,000 and to the poorest coastal dwellers. The eligibility criteria established in the ORs include per capita income and gender considerations to ensure transparency in the selection of beneficiaries. The information system established under Project II will provide a breakdown on participation by Afro-Ecuadorians and by gender. These indicators are included in the logical framework.
- 4.38 The information system and the baseline will permit Project II to be monitored and facilitate an evaluation of the social impact of the operation on the beneficiaries and the impact on coastal ecosystems. To support general follow-up, an independent socioenvironmental audit will be contracted as part of the midterm evaluation.
- 4.39 Last, expanding on the good experience of productive projects linked to the conservation of environmental quality and improvements in the local standard of living will benefit the direct users of the resources, in particular the women who live in the communities in the six special management zones who traditionally gather crab and other products from the mangrove swamps that are important for their subsistence. Based on past experience, component III includes activities and projects to increase the role played by women in the coastal planning process and in resource management, particularly reforestation of the mangrove swamps and conch gathering. The activities to support the communities benefiting from mangrove concessions in the Cayapas-Mataje Mangrove Reserve will directly assist Afro-Ecuadorian groups.

E. Risks

- 4.40 **Risk: The beneficiaries may not make timely contributions.** The municipalities are required to provide cofinancing for the specific projects in which they participate. Failure to allocate the 15% of the national budget that the municipalities are entitled to in a timely manner would reduce the funds available to them.
- 4.41 **Mitigating factor:** This second phase of the project seeks the sustainability of the works and the processes financed, which has proven to be successful in the first phase. The Project II Operating Regulations improve the conditions for success, including commitments to cofinance specific projects and to operate and maintain them adequately.
- 4.42 Project II also seeks the financial and institutional viability of the program and of integrated coastal management. The local contribution to Project I was timely and the contribution for Project II is similar in amount. As this loan proposal describes, an action plan will be drawn up to seek own financial resources for the PMRC. As of the third year, the Executive Directorate will be in a position to cover part of its operating costs with own resources. Active participation in the PMRC by public and private national, regional and local stakeholders means that institutional conditions for integrated coastal management will be established to promote

institutional sustainability. Also, the coastal municipalities seek advisory services from the PMRC for land-use planning and planning activities.

- 4.43 Since the coastal municipalities attach priority to the kinds of works financed under Project II, which permits them to leverage their resources, the municipalities will give priority to allocating their scarce funds to these operations, as various municipalities have already indicated. In addition, each participating municipality will be required to sign an agreement setting out its commitments for cofinancing and adequate operation and maintenance of the specific projects financed, as indicated in the Project II Operating Regulations.

**Coastal Resources Management Project, Phase II
(EC-0193)**

LOGICAL FRAMEWORK

NARRATIVE SUMMARY		INDICATORS		MEANS OF VERIFICATION		MAIN ASSUMPTIONS	
A. GOAL							
1.	To help improve the quality of life and the environment and alleviate poverty in Ecuador’s coastal area.	1.1	Reduction in the poverty rate in the project zone, compared to the national average.	1.1	Integrated system of social indicators of Ecuador.	1.1	The provincial, municipal and national governments maintain their commitment to sustainable development and the conservation of biodiversity.
		1.2	Maintenance of the current condition of coastal marine ecosystems.	1.2	Reports by the Ministry of the Environment.		
B. PURPOSE							
1.	To improve and expand integrated coastal management, supporting sustainable uses and the gradual and accountable transfer of responsibilities to guide land-use planning and management in the coastal area.	1.1	Mangrove swamp coverage is maintained at 1999 levels.	1.1	Baselines and monitoring performed during execution. Records of municipal-company commitments to apply the effluent management plans. Periodic reports on the quality of effluents.	1.1	The basic institutional arrangements for decentralization to the municipalities of land-use planning in the coastal region and control over certain activities have entered into effect.
		1.2	Generation of own income by the PMRC to account for 25% of its total income by the end of year two and 50% by the end of the project.	1.2	Midterm evaluation and financial statements.	1.2	(i) The necessary support is available for the revival of the PMRC; and (ii) players affected by the program are willing to make contributions to the PMRC.
		1.3	10% reduction in gastrointestinal diseases.	1.3	Statistics from local health posts and annual audits.	1.3	(i) Social conflicts in the country ease and political stability is maintained; and (ii) the municipal commitment is maintained.
		1.4	Reduction in vulnerability to natural disasters along the coast.	1.4	If an event occurs, the impact on the communities benefiting from the program will be compared in the field with the impact on nonbeneficiary communities.	1.4	There is a low occurrence of disasters related to el Niño and high water levels.

NARRATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	MAIN ASSUMPTIONS
C. COMPONENTS			
1. Coastal management Definition and promulgation of the regulatory framework and development of system institutions.	1a. Policies for integrated coastal management (by year two) and tourism (by the end of the project) approved and being implemented. 1b. Municipal bylaws implementing tourism policies in (4-10) ¹ municipalities. 1c. Environmental management units established in at least (4-10) municipalities. 1d. At least (2-5) coastal municipalities have zoned their tourist beaches.	1a. Resolution issued by the National Coastal Resources Management Commission (CNMRC). Executive decrees placing the mangrove and tourism policies in effect. 1b. Biannual audits. 1c. Annual audits 1d. Biannual audits.	1a. There is political willingness to approve policies, rules and regulations. 1b. Acceptance of the policies by the regulated players. 1c. The municipalities maintain their stability. 1d. The political trend to decentralization is maintained.
2. Information for coastal management Better information on the status of the environment and resources.	2a. (2-5) municipalities issue bylaws using the database developed by the program. 2b. Indicators are available to monitor key issues and program impact, including gender and Afro-Ecuadorian participation. 2c. Southern Manta has been included in the Puerto López special management zone. 2d. At least five modules on coastal resources and environments are included on the primary level and five on the secondary level. 2e. Personnel from at least five municipalities, government agencies and NGOs are trained in priority issues for integrated coastal management.	2a. Reports prepared by the executing agency. 2b. Program execution reports and midterm and final evaluations. 2c. Program execution reports. 2d. Program execution reports. 2e. Program execution reports.	2a. Willingness to pay for certain services.

¹ The numbers in parenthesis indicate targets after two years and at the end of the project, respectively.

NARRATIVE SUMMARY	INDICATORS	MEANS OF VERIFICATION	MAIN ASSUMPTIONS
<p>3. Investments in the coastal belt</p> <p>Active participation in the prevention of environmental damage and the conservation and sustainable use of resources and increases in the income of low-income groups through larger municipal and community investments.</p>	<p>3a. Construction of 1,160 latrines to benefit 4,800 people, two potable water systems to benefit 2,000 people and five solid waste disposal systems to benefit 40,000 people.</p> <p>3b. New works for disaster mitigation and prevention reduce the vulnerability of the beneficiary communities.</p> <p>3c. Six parking areas built.</p>	<p>3a. Program execution reports.</p> <p>3b. Program execution reports.</p> <p>3c. Program execution reports, reports by the municipalities.</p>	<p>3a. Availability of the community and municipal contributions (in cash and/or in kind).</p> <p>3b. See 3a.</p> <p>3c. See 3a.</p>
D. ACTIVITIES			
<p>1. Coastal management</p> <p>1a. National coastal management</p> <p>1b. Local coastal management</p> <p>2. Information for coastal management</p> <p>2a. Management information system</p> <p>2b. Preinvestment studies</p> <p>2c. Human capital investment</p> <p>3. Investments in the coastal belt</p> <p>3a. Community and preventive investments</p> <p>3b. Public-private investments</p>	<p>1a. 176,000</p> <p>1b. 2,187,000</p> <p>2a. 164,000</p> <p>2b. 1,805,000</p> <p>2c. 448,600</p> <p>3a. 4,313,700</p> <p>3b. 1,200,000</p>		

**Coastal Resources Management Project, Phase II
(EC-0193)**

Tentative Bid Schedule

MAIN PROCUREMENT UNDER THE PROJECT*	IDB (%)	METHOD	PREQUALIFICATION YES/NO	SPECIAL PROCUREMENT NOTICE (Tentative publication date)
A. Goods packages				
1. <u>Goods package # 1</u> • 4 4x4 pick-up trucks Amount: US\$99,230	100%	CB	NO	May-04
2. <u>Goods package # 2</u> • 3 4x4 pick-up trucks • 2 4x4 station wagons Amount: US\$170,770	100%	CB	NO	January-05
3. <u>Goods package # 3</u> • 7 outboard motors Amount: US\$140,000	100%	LCB	NO	June-04
B. Works				
1. <u>Works # 1</u> • Latrine construction(600) Amount: US\$300,000	100%	LCB	NO	June-04
2. <u>Works # 2</u> • Latrine construction(600) Amount: US\$266,000	100%	LCB	NO	March-05
3. <u>Works # 3</u> • Construction of solid waste systems in five coastal communities Amount: US\$158,740	100%	LCB	NO	September-06

* Status of all program procurement activities: pending

MAIN PROCUREMENT UNDER THE PROJECT*	IDB (%)	METHOD	PREQUALIFICATION YES/NO	SPECIAL PROCUREMENT NOTICE (Tentative publication date)
4. <u>Works # 4</u> <ul style="list-style-type: none"> Construction of wharf in Puerto López Amount: US\$310,000	100%	LCB	NO	June-07
5. <u>Works # 5</u> <ul style="list-style-type: none"> H.A. wall (Puerto López, Cdla. Los Ciruelos) Amount: US\$108,000	100%	LCB	NO	June-08
6. <u>Works # 6</u> <ul style="list-style-type: none"> Gabion wall San Clemente – Manabí Amount: US\$135,500	100%	LCB	NO	June-08
7. <u>Works # 7</u> <ul style="list-style-type: none"> Gabion wall Pto. López (Ayampe, Las Tunas, Pto. Rico, Agua Blanca, Machalilla, Salango, Barrio San Jacinto Sur and Sitio Poza de la Muerte) Amount: US\$261,630	100%	LCB	NO	February-07
C. Services				
1. <u>Service # 1</u> <ul style="list-style-type: none"> Support preparation and approval of bylaws on land use at tourist beaches of selected coastal cantons and promote compliance therewith Amount: US\$307,500	100%	LCB	NO	May-06
2. <u>Service # 2</u> <ul style="list-style-type: none"> Design of a work plan with a 10-year horizon; development of bylaws and mechanisms for implementation of the plan, including outsourcing Amount: US\$252,000	100%	LCB	NO	February-06
3. <u>Service # 3</u> <ul style="list-style-type: none"> Produce maps of the sites for which beach profiles will be prepared at a scale of 1:10,000 Amount: US\$399,900	100%	LCB	NO	May-05

MAIN PROCUREMENT UNDER THE PROJECT*	IDB (%)	METHOD	PREQUALIFICATION YES/NO	SPECIAL PROCUREMENT NOTICE (Tentative publication date)
<p>4. <u>Service # 4</u></p> <ul style="list-style-type: none"> Evaluate selected coastal watersheds for water management and prevention of impacts of natural disasters <p>Amount: US\$164,000</p>	100%	LCB	NO	July-04
<p>5. <u>Service # 5</u></p> <ul style="list-style-type: none"> Conduct a second socioeconomic survey in the 22 coastal communities selected under the PMRC I <p>Amount: US\$220,000</p>	100%	LCB	NO	February-06
<p>6. <u>Service # 6</u></p> <ul style="list-style-type: none"> Profile of the institutional capacity of the coastal municipalities for integrated coastal management (baseline and evaluation at end of project) <p>Amount: US\$158,000</p>	100%	LCB	NO	February-05
<p>7. <u>Service # 7</u></p> <ul style="list-style-type: none"> Census of shrimp farming in the most disturbed estuaries of the four coastal provinces (3 and part of Jambeli) <p>Amount: US\$470,000</p>	100%	LCB	NO	April-06
<p>8. <u>Service # 8</u></p> <ul style="list-style-type: none"> Profile the Cantagallo area for purposes of management and land-use planning <p>Amount: US\$100,000</p>	100%	LCB	NO	February-06
<p>9. <u>Service # 9</u></p> <ul style="list-style-type: none"> Monitor sea water quality at selected coastal resorts <p>Amount: US\$105,000</p>	100%	LCB	NO	August-06
<p>10. <u>Service # 10</u></p> <ul style="list-style-type: none"> Consolidate the mangrove reforestation, conservation and management projects <p>Amount: US\$150,000</p>	100%	LCB	NO	May-04

MAIN PROCUREMENT UNDER THE PROJECT*	IDB (%)	METHOD	PREQUALIFICATION YES/NO	SPECIAL PROCUREMENT NOTICE (Tentative publication date)
11. <u>Service # 11</u> <ul style="list-style-type: none">Prepare management plans in six community concessions in REMACAM Amount: US\$275,400	100%	LCB	NO	May-05

LCB: Local competitive bidding