

MULTIPHASE PROGRAM FOR SUSTAINABLE ROADS IN RURAL AREAS

(ES-0129)

EXECUTIVE SUMMARY

Borrower:	Republic of El Salvador		
Executing agency:	Ministry of Public Works, Transportation, Housing and Urban Development (MOP)		
Amount and source:		PHASE I	PHASE II
	Local:	US\$17.12 million	US\$14.60 million
	IDB: (OC)	US\$58.00 million	US\$47.00 million
	Total:	US\$75.12 million	US\$61.60 million
Terms and conditions:	Amortization period:	25 years	
	Grace period:	3 years	
	Disbursement period:	3 years	
	Interest rate:	Variable	
	Inspection and supervision:	1 %	
	Credit fee:	0.75 %	
	Currency:	United States dollars under the Single Currency Facility	
Objectives:	The objective of the proposed program is to promote passenger and freight transportation by rehabilitating a portion of the tertiary road system in rural areas, establishing new systems for road maintenance, and modernizing the transportation sector's institutional structure, thereby helping to reactivate the agricultural sector, integrate rural communities, and improve the standard of living of the rural population. In addition, the program will contribute to the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads that were damaged by the 13 January 2001 earthquake.		
Description:	The proposed operation will be carried out as a multiphase program, with two execution phases lasting approximately three years each. The program has four components: (i) the first component will support the rehabilitation and improvement of approximately 600 km of tertiary gravel roads in rural areas (300 km in each phase); (ii) the second component will support the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads that were		

damaged by the 13 January 2001 earthquake; (iii) the third component will support the establishment and consolidation of new road maintenance systems during phase I of the program; and (iv) the fourth component will contribute to the MOP modernization process in terms of its role as the agency in charge of regulation, planning, promotion and supervision for the road infrastructure.

Under a multiphase program, the scale of the operation can be adjusted to the levels of indebtedness agreed on by El Salvador in the operations program. In addition, the authorities have agreed on benchmarks in the MOP institutional reform process that will help ensure the sustainability of the road system. The proposed program will support implementation of the institutional reform, allocating resources to support the establishment of a sustainable mechanism for road maintenance and the program to use microenterprises in road preservation activities.

The Bank will process phase II of the program by verifying that the objectives of phase I have been substantially achieved, including satisfactory execution of phase I works and fulfillment of the benchmarks previously agreed upon. Progress in the fulfillment of these conditions will be monitored through the system of periodic consultation meetings mentioned in paragraph 3.20. Based on the first phase evaluation report and the findings of the supervision and evaluation mission, a memorandum will be submitted to the Board of Executive Directors regarding approval of phase II.

**The Bank's
country and
sector strategy:**

The proposed program is consistent with the Bank's strategy in El Salvador, which emphasizes reactivating the economy, improving the social situation, and reducing poverty, especially in rural areas. In addition, in the case of natural disasters with serious repercussions, such as the recent earthquake, the Bank supports the relief efforts made by its member countries to address the socioeconomic and environmental impact of the unforeseen event. At the end of 1999 and beginning of 2000, an Interdivisional Working Group from Regional Operations Department 2 prepared a paper entitled "Developing the Economic Potential of Rural Areas in El Salvador", which has been discussed with the government authorities. The paper analyzes the principal problems underlying the rural recession in El Salvador and describes the opportunities for drafting policies and identifying investments to fully develop the economic potential of the country's rural areas. The proposed program responds to one of the recommendations made in the paper to address the lack of year-round, affordable vehicular access to rural areas, which is one of the factors impeding their development and integration with the national

economy. The availability of transportation is crucial in helping ensure labor force mobility, efficient transportation of agricultural and other rural products, and access to productive and social services, including schools and health clinics.

**Environmental
and social
review:**

The program does not entail any significant adverse social and environmental impact, since it involves rehabilitating and improving existing roads in already developed areas; the impact is localized and foreseeable and can be mitigated. The rehabilitation works to be carried out under the program do not entail any major difficulties in construction, any resettlement, or any plans to reroute roads. Social and environmental impact assessments (EIAs) and the corresponding environmental management action plans (PAMAs) with specific protection measures have been prepared for the five projects selected for the first year. The assessments indicate that the projects will have a positive impact overall. The little adverse environmental impact they will have are of medium to low intensity, scope, and duration and are reversible and geographically limited. The assessments also indicate that none of the projects entails new development in the project areas of influence, and that the works will improve access to agricultural areas. The project designs include the environmental measures and budgetary allocations necessary to mitigate any adverse social and environmental impact. The respective EIAs and PAMAs must be prepared for the roads damaged by the earthquake before the bidding process can be initiated.

Benefits:

The works to be carried out under the proposed program will help ensure more affordable access to agricultural markets for surrounding areas, because of lower vehicle operation costs resulting from the improved condition of the selected roads. The more functional, rehabilitated roads will help reduce travel times for passengers in light vehicles and buses. In addition, to the extent that savings in vehicle operation costs are passed on to passengers and farmers and that these people are members of low-income groups, the program will generate not only economic, but also social benefits resulting from an improved distribution of income in the project areas of influence. The same benefits will accrue from the reconstruction and rehabilitation of earthquake-damaged rural roads.

Risks: The proposed operation does not entail substantial risks. The experience gained during the first phase of the National Program for Sustainable Roads in Rural Areas (PNCSAR) has been used in the design of this operation, and the MOP Modernization Program has corrected the shortcomings that had profoundly affected the execution of highway programs in the past.

There is a risk that the procedures for approval of the loan contract with the Bank and its subsequent authorization by the Salvadorian legislature may take a long time, as has occurred with many of the loans approved by the Bank's Board of Executive Directors in recent years. However, in January 2001, the legislature approved four operations (loans 1041/OC-ES for modernization of the public sector; 1984/OC-ES for education technologies; 1092-OC-ES for modernization of the health sector; and 1203/OC-ES for modernization of the Legislative Assembly). For the five still pending, the Salvadorian authorities indicated that progress has been made in building consensus with the Legislative Assembly on their approval. In addition, MOP authorities are coordinating efforts with mayors and other local representatives, who will help create the consensus needed to approve the proposed program.

To mitigate the risk posed by many road rehabilitation programs concerning the continuity and quality of maintenance for the road system and the existing structural weaknesses in financing, planning, and managing road preservation, the program includes support for the government's Strategy for Sustainable Road Maintenance for implementation and consolidation of FOVIAL. The multiphase operation arrangement constitutes a guarantee and an important incentive to ensure the fulfillment of this strategy and the various benchmarks and goals established for the program.

Special contractual conditions:

A. Conditions precedent to the first disbursement

The executing agency will submit to the Bank: (i) the detailed action plan for program execution; (ii) evidence that FOVIAL has been allocated resources to enter into contract for maintenance of at least 500 km of the maintainable roads assigned priority during the first year of the program (paragraph 3.8); and (iii) evidence that a social specialist has been hired for the Environment Unit.

B. Other special contractual conditions

- a. Joint meetings of the executing agency and the Bank will be held annually to review fulfillment of the goals, objectives, efficiency indices, and other conditions agreed upon with the Bank (paragraph 3.20). The purpose of the meetings will be to monitor

the progress achieved in fulfilling the conditions for phase II to be approved. Any necessary adjustments in the action plan and projects for the following years will be agreed upon at these meetings, in accordance with the eligibility conditions agreed upon with the Bank (paragraph 3.9).

- b. Before any microenterprises can be hired under the maintenance plan, the Bank must approve the detailed action plan, the regulations on rating, and the draft contracts to be used (paragraph 3.17).
- c. To address the social and environmental concerns under the program, a clause will be included in the loan contract stipulating that EIAs, PAMAs, and public consultations must be carried out in the project area of influence and the Bank's Involuntary Resettlement Policy (OP-710) must be followed if resettlement is required for any of the projects (paragraph 3.31).

Among other requirements, the loan contract will also include the Bank's standard conditions concerning technical and environmental standards, audits, reports, supervision, evaluations, maintenance, the hiring of consultants, and the procurement of goods and a provision stipulating that before contracts are awarded for program works, the consulting firm must have been hired to supervise the works.

Poverty-targeting and social sector classification:

This operation qualifies as a social equity enhancing project, as defined in the key objectives for the Bank's activity set forth in the Report on the Eighth General Increase in Resources (document AB-1704). However, it does not qualify as a poverty-targeted investment (PTI).

Although some of the selection criteria favor communities that have limited access to services and have remained on the periphery of economic development, it is impossible to guarantee that the program will be able to maintain the proportion of these kinds of communities required to qualify as a PTI on a long-term basis. According to the studies conducted, it is estimated that over half of the potential beneficiaries of most of the projects for the first year have incomes below the poverty line, and, in general, the works to be carried out under the program will help provide them with access to markets and productive and social services, thereby promoting social equity (paragraph 4.14).

Exceptions to Bank policy:

None.

Procurement: The awarding of contracts for works and consulting services and the procurement of equipment financed with the proceeds of the Bank loan will be carried out through competitive bidding, in accordance with the applicable Bank standards and procedures. International competitive bidding (ICB) will be required for procurement in amounts equal to or above US\$300,000. For works in amounts equal to or above US\$2 million, ICB with prequalification will be required. For consulting services in amounts above US\$200,000 equivalent, an international call for proposals will be required (paragraph 3.16).

I. FRAME OF REFERENCE

- 1.1 At the end of 1999 and beginning of 2000, an Interdivisional Working Group from the Bank's Regional Operations Department 2 prepared a paper entitled "Developing the Economic Potential of Rural Areas in El Salvador", which was discussed with the government authorities. The paper analyzes the principal problems underlying the rural recession in El Salvador and describes the opportunities for formulating policies and identifying investments to fully develop the economic potential of the country's rural economy. The proposed program responds to one of the recommendations made in the paper regarding the lack of year-round, affordable vehicular access to rural areas, which is one of the factors impeding their development and integration with the national economy. The availability of transportation is crucial in helping ensure worker mobility, the efficient transportation of agricultural and other rural products, and access to productive and social services, including schools and health clinics.
- 1.2 The government has requested that the program include resources to finance the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads damaged by the 13 January 2001 earthquake. The initial quake and subsequent aftershocks damaged the country's basic infrastructure, especially the road infrastructure. The main highways (the Pan American Highway, the Coastal Highway, and the Comalapa Freeway) sustained significant damage, and many smaller roads became impassable. Most of the damage was caused by landslides, cracking and other damage to embankments, collapse and breakage of water and sewer main intersections, settling of access roads to bridges, and damage to large structures.
- 1.3 The MOP staff, with the support of contractors, has addressed the immediate relief stage of the emergency and has made the necessary repairs to allow traffic on the country's major highways. However, some of them will remain closed or have vehicular traffic restrictions for a while. Once the emergency phase is over, reconstruction and rehabilitation works on the national infrastructure will have to be carried out according to the country's priority investment plan. This stage of works will include highways and sustainable rural roads, which require substantial investments that were assigned priority or have now become a priority because of earthquake damage. According to preliminary estimates, the impact of the quake on the road sector could total US\$100 million, including the cost of immediate measures, emergency rehabilitation, and priority reconstruction.

A. National Program for Sustainable Rural Roads

- 1.4 As part of their policies to reactivate the agricultural sector and economically integrate rural communities, the Salvadorian authorities proposed and launched the National Program for Sustainable Roads in Rural Areas (PNCSAR), the purpose of which is to rehabilitate and improve approximately 1,000 km of tertiary roads in rural areas. These roads connect the municipal seats with the primary road system

or to other roads that are heavily trafficked or that will generate economic benefits. Under the PNCSAR, priority is given to the roads serving the most impoverished areas and areas vulnerable to natural disasters. In addition to road surface improvements, the program includes plans for drainage works, larger structures, safety features and traffic signage, and new methods for maintaining the road system. The Ministry of Public Works, Transportation, Housing and Urban Development (MOP) is executing the PNCSAR based on the strategies and priorities set forth by an Interinstitutional Committee consisting of the MOP, the Ministry of Agriculture and Livestock (MAG), and the Association of Municipalities of the Republic of El Salvador (COMURES).

- 1.5 In 1999, the MOP launched the first phase of the PNCSAR, which entails rehabilitating and improving approximately 400 km of roads. This phase has been financed with loan proceeds from the MOP, the United States Agency for International Development (USAID), the Government of China, and the Bank. The Bank is contributing US\$37 million for the first phase through loans 840/OC-ES and 731/OC-ES, which are financing the rehabilitation and improvement of approximately 230 km of roads. Satisfactory progress has been made during this phase, and the works planned for the phase are 60% complete. Of the total 400 km of roads, 60 km have been rehabilitated, 200 km will be completed by the end of 2000, and the remaining projects will be completed by mid-2001. The projects are on schedule and have not incurred any extra costs, thanks to adequate engineering studies, good supervision, and reorganization of the Project Coordination Unit (UCP) by the MOP to ensure efficient project management and oversight. The experience gained during the first phase was used to design the proposed program.
- 1.6 The Salvadorian government has requested the Bank's financial support for the next phases of the PNCSAR. To this end, during the programming mission in October 1999, the government and the Bank agreed to add a multiphase program to finance works on approximately 600 additional kilometers of roads, including the proposed program and phase II in 2003.

B. The program environment

1. Socioeconomic framework

- 1.7 In the 1990s, El Salvador made significant political and economic changes through structural adjustments and reforms that have resulted in macroeconomic stability, modernization of the State, and economic liberalization. Progress has been made in the areas of privatization, financial modernization, and reforms in public administration and the judicial system. Education quality and coverage have also improved. The current challenge facing the country is to continue with the second generation reforms, in particular consolidation of the regulatory and supervisory frameworks; consolidation of democracy; the protection of individual rights; and ensuring citizen security and legal certainty.

- 1.8 After significant increases in gross domestic product in the years leading up to 1995, economic growth has slowed. Consequently, another challenge is to reactivate the economy and make it more competitive by improving the efficiency of the factors of production, particularly in the areas of human capital and the industrial and agricultural sectors; offsetting the impact of appreciation of the currency largely due to devaluations in neighboring countries; eliminating trade barriers; improving the levels of technology and information; and effectively managing market penetration in an open economy.
- 1.9 Through consultations with various sectors in El Salvador, the government developed a comprehensive strategy to fight poverty. It consists of taking steps in key areas to: increase the productivity of human capital, support microenterprises, increase investments in rural infrastructure and housing, support municipal strengthening and citizen participation in local programs, and continue providing comprehensive support for families and vulnerable groups.

2. Institutional structure

- 1.10 The MOP serves as the policy-making and regulatory body for the transportation sector and has three offices (public works, transportation, and housing and urban development). The Office of the Deputy Minister for Public Works is responsible for planning, building, improving, and maintaining the highway and road system, with the exception of local roads, which are the responsibility of the respective municipalities.
- 1.11 The Office of the Deputy Minister for Public Works has seven operations departments, including the Department of Roads (DGC), which has reduced its activities to road maintenance and conservation carried out on force account; the Project Coordination Unit (UCP), which manages practically all MOP resources used for investments in the construction, rehabilitation, and improvement of the national road system; and the Road Planning Unit (UPV), which is responsible for road planning and studies.
- 1.12 As part of the program to modernize the public sector, the Salvadorian authorities have developed a strategic plan for institutional reform of the MOP. The main purpose of this plan is to modernize the MOP and its areas of responsibility according to the role that the public sector should play in a market economy and a modern State. The plan provides for the conversion of the Office of the Deputy Minister for Public Works into a regulatory, planning, supervisory, and evaluating body. It will also help consolidate the various financial and administrative departments which are currently part of the Office's Department of Finance and Administration; transform the current UCP into the Road Project Coordination Department, which will be responsible for the Ministry's investment programs; consolidate the maintenance functions currently being carried out by MOP in a Road Maintenance Department; and strengthen the UPV, making it responsible for all activities related to road planning and studies.

- 1.13 The government strategy recognizes that the national road system is a public good and an essential asset that serves and belongs to the country and must be maintained in a good state of repair to achieve economic and social development of the country. As an integral part of the central government modernization process set forth in the government program, the MOP must restructure the sector through legislative reform, changes in procedures, administrative overhauling, and new management models. Accordingly, in December 2000, legislation entered into force establishing the Road Maintenance Fund (FOVIAL) and providing for compensation for MOP officials and employees hired under the Salary, Contract, and Day Laborer Act who are willing to take voluntary early retirement as a result of the restructuring the MOP is implementing to achieve modernization, subject to the applicable regulations.

3. The road system

- 1.14 Highway transportation is the most commonly used means of transportation for both passengers and goods in El Salvador. Since the economy is based on agricultural production, there is enormous demand for an adequate road infrastructure and an efficient transportation system. Given the country's topography and size, the distances to be covered are relatively short. The transportation infrastructure is relatively dense, considering that the surface totals approximately 21,000 square kilometers.
- 1.15 According to the official survey, El Salvador's road system is 12,840 km long, with 10,140 km falling under the responsibility of the MOP (2,050 km are primary, secondary, and tertiary paved highways; 1,679 km are tertiary gravel roads; and 6,411 km are rural dirt roads). The remaining 2,700 km are local dirt roads that fall under the jurisdiction of local governments, communities, and municipalities.
- 1.16 During the 1990s, the government made large investments to rehabilitate the system of primary and secondary paved roads, which were in a state of marked deterioration due to the fact that, during the years of armed conflict, funding for road rehabilitation and maintenance was extremely limited. In 1990, 60% of the entire road system was in poor condition, and the situation has further deteriorated as a result of the recent earthquake. As a result of investments in paved roads, the percentage in poor condition dropped to 50%. The purpose of the proposed program is to improve the condition of the tertiary road system.

4. Strategy for sustainable maintenance

- 1.17 Although the MOP has adequate staff and equipment, and a considerable budgetary allocation to carry out periodic, routine maintenance, in general, it has assigned higher priority to road reconstruction and rehabilitation and neglected maintenance activities. This has led to a rapid deterioration of the roads and created a vicious cycle in which roads must be rehabilitated or reconstructed long before they reach the end of the serviceable life for which they were designed. Due to scarce

resources for maintenance activities, road maintenance coverage is low and its frequency lower than needed. Currently, the private sector is not involved in road maintenance activities because the MOP has carried out maintenance exclusively on force account.

- 1.18 To ensure adequate maintenance for the entire road system in El Salvador, the government is considering a strategy comprising different measures: (i) creating the Road Maintenance Fund (FOVIAL) as an autonomous body with its own assets and specific resources that will be responsible for maintaining the national system of priority maintainable roads through contracts with private companies; (ii) reorganizing and strengthening the new organizational structure of the MOP, which will be in charge of maintaining the portion of the national road system not under FOVIAL's jurisdiction, which mainly consists of rural roads, and servicing roads in need of emergency attention, on force account and by hiring companies; and (iii) strengthening municipalities so that they are able to adequately service the local roads, as required by law and under decentralization programs.
- 1.19 FOVIAL was established by Decree 208 of 18 December 2000, which entered into force on 26 December 2000. The purpose of the decree is to establish the legal framework to finance and manage maintenance of the national road system assigned priority, which includes the paved and gravel systems the link municipal seats to the primary system (currently 3,729 km). The FOVIAL Act stipulates that the executive body in the respective branch will transfer savings from its fossil fuel transactions to minimize the impact on users and thereby ensure that FOVIAL will have permanent resources for its operation. In addition to an initial contribution from the central government budget, FOVIAL funding will also consist of mandatory annual transfers from the general budget for public works and any special contributions the central government may grant it. The act also authorizes FOVIAL to contract loans for road maintenance and sets a cap on its administrative expenses as a percentage of its total resources. Management of FOVIAL resources would be the responsibility of a board of directors made up of two representatives of the government, two of users, and one of private companies.
- 1.20 Until the FOVIAL was approved and implemented, the MOP agreed to establish a Contractual Maintenance Unit (UMC) that would initiate the process of outsourcing maintenance works on a limited scale and acquiring experience in the management, administration, and oversight of this arrangement. At the request of the MOP, the Bank is using proceeds from loan 840/OC-ES to support the UMC. In addition, under the MOP reorganization, a department will be assigned to service roads that require emergency attention and maintain rural dirt roads that will fall under its responsibility once they have been reclassified and the survey of rural roads (currently 6,411 km) has been updated.
- 1.21 As part of the strategy, MOP has made progress in carrying out routine maintenance using its own resources and staff, who are organized into teams that have objectives and incentives similar to those of microenterprises. To this end,

MOP staff is being trained, and international experts financed by the Multilateral Investment Fund have provided advisory services. The results have been positive: the efficiency and quality of maintenance work have improved and MOP staff has been motivated to participate in a more extensive program. This experience will serve as the foundation for preparing microenterprises that could be hired with program resources to carry out road maintenance activities.

5. Sector financial resources

- 1.22 The financial resources allocated to the transportation sector in the 1995-1999 national budget are presented in Table I-1. Maintenance expenditures were mainly for routine maintenance of primary and secondary roads carried out on force account, since budgetary restrictions only allowed a limited number of the necessary periodic maintenance to be carried out. The priority assigned to rehabilitation and construction reflects the availability of external resources for these programs. The figures in Table I-1 include funding for urban road programs, most of which were for works in the capital to build pedestrian bridges and crosswalks at major urban intersections with heavy vehicular traffic. During this same period, significant resources were used to construct and widen bridges, in association with assistance programs financed by the Central American Bank for Economic Integration (CABEI). In addition to administrative costs, the category "operations and other" includes expenditures for urban development, for which the MOP is currently responsible, and for machinery, equipment, and rights-of-way.
- 1.23 The projections for 2000-2004 take into account the availability of resources freed up from largely completed urban road and bridge programs to be used for rehabilitating and constructing rural roads in accordance with the investment plan. The projections reflect the financial implications of implementing the maintenance plan agreed upon in the program and the MOP restructuring to transform the ministry into an agency focused on planning, regulation, and contract administration. They do not include additional resources that may become available when the FOVIAL Act enters into force. In such an event, the amount of resources available to carry out routine, periodic maintenance of priority maintainable roads would greatly increase, thereby allowing more resources to be channeled to the rest of the road system. The financing from the organizations listed in Table I-1 is for ongoing programs and those in the process of being approved, but not for those in the initial stages of preparation.

Table I-1
Spending and financing for the road system
(in millions of U.S. dollars equivalent)

	Budgeted amount	Projected amount	Average annual amount	
	2000	2001	95-99	00-04
Construction and widening	46.1	21.2	18.2	44.7
Rehabilitation and reconstruction	57.9	74.6	38.1	68.9
Bridges	15.7	5.0	16.2	8.8
Road maintenance	23.3	25.2	22.6	25.0
Operations and other	33.5	18.9	59.4	24.3
Total expenditures	176.5	144.9	154.5	171.7
BID	65.9	34.5	41.6	44.2
CABEI	4.7	9.5	5.3	5.9
OECD – JBIC	15.5	15.8	12.0	16.6
USAID	8.4	0.8	2.4	4.6
Other donors	5.7	0.3	1.6	8.7
To be determined	15.6	18.0	0.0	21.7
Subtotal, external financing	115.8	78.9	62.9	101.7
National budget	60.7	66.0	91.6	70.0
Total financing	176.5	144.9	154.5	171.7

C. The Bank's sector strategy

- 1.24 The proposed program is consistent with the Bank's strategy in El Salvador to place special emphasis on reactivating the economy, improving the social situation, and reducing poverty, especially in rural areas. It also addresses one of the recommendations made in the Bank study on developing the economic potential of rural areas in El Salvador. The purpose of the program is to provide the rural population with serviceable roads that will support increased production by the rural economy and afford year-round access to markets and basic social services. In addition, in the case of natural disasters with serious repercussions, such as the recent earthquake, the Bank supports the relief efforts made by its member countries to address the socioeconomic and environmental impact of the unforeseen event.
- 1.25 As part of the strategy for rural areas, the government has also requested an operation to support local roads that fall under the jurisdiction of municipalities, to be executed by the Social Investment Fund for Local Development (FIS-DL), and support for the agribusiness modernization program (ES-0119), to be carried out by the MAG. Preparation of these programs is being coordinated in order to maximize the fulfillment of the objectives proposed in the above-mentioned paper. In addition to the investment resources provided by the municipalities for local roads, the FIS-DL operation will also include a technical assistance component to help the municipalities carry out their responsibilities in a way that will ensure sustainability and proper attention to mitigating any adverse social and environmental impact.

- 1.26 To cover activities for emergency relief and rehabilitation of the infrastructure damaged by the recent earthquake, a total of US\$177.3 million in funding for ongoing programs financed by the Bank was identified as available for allocation or reallocation. Of these resources, to address road sector needs, US\$14 million in uncommitted resources from loan 839/OC-ES for the rural and urban trunk road rehabilitation program and reformulated loan 731/OC-ES for Hurricane Mitch emergency assistance is being reallocated, and US\$24.2 million in outstanding resources from loan 838/OC-ES for the electric power expansion program is being reprogrammed. At the same time, the Bank is preparing a US\$20 million program under the emergency reconstruction facility to support the Salvadorian government, mainly its reconstruction efforts in the housing sector and preventive measures to stabilize unstable slopes.
- 1.27 The proposed operation, along with the FIS-DL program, is part of the Bank's extensive activities in the transportation sector in El Salvador. These include ongoing highway rehabilitation operations and support for defining a logistic corridor for Central American integration. The proposed program will also support the MOP reform plan, which is part of the process being carried out by the Salvadorian authorities to consolidate and strengthen modernization of the State.

D. Experience of the Bank and other agencies

- 1.28 In the last decade, the Bank approved three programs to support the development of the transportation sector in El Salvador and authorized the reformulation of an operation in response to the emergency created by Hurricane Mitch¹. Two of these operations have been completed. Pursuant to the government's request, the Bank has reallocated the uncommitted resources from ongoing road operations to reconstruction and rehabilitation of highways and sustainable rural roads damaged by the earthquake, which will be completed in 2001. The Bank's experience in this sector shows that the number of loans approved at the beginning of the decade was greater than the MOP's capacity to execute the programs and the country's ability to absorb the resources, both of which were diminished due to the armed conflict. At the beginning of 1995, Bank loans to be disbursed exceeded US\$300 million and approved projects were behind schedule and had incurred extra costs during project execution due to incomplete engineering studies, problems with rights-of-way, the lack of a counterpart, and inadequate supervision. The MOP modernization program and the efforts made over the past few years in executing Bank loans have helped overcome these problems to a large extent. In addition, the country's and the MOP's capacity to execute projects was taken into account in determining the scale of the proposed operation.

¹ Rural road rehabilitation program (844/SF); trunk highway program (653/OC and 870/SF); road rehabilitation and improvement program II (839/OC and 840/OC); and Hurricane Mitch emergency assistance (731/OC).

II. THE PROGRAM

A. Objective

- 2.1 The objective of the proposed program is to promote passenger and freight transportation by rehabilitating a portion of the tertiary road system in rural areas, establishing new systems for road maintenance, and modernizing the transportation sector's institutional structure, thereby helping to reactivate the agricultural sector, integrate rural communities, and improve the standard of living of the rural population. In addition, the program will contribute to the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads that were damaged by the 13 January 2001 earthquake.

B. Structure of the program

- 2.2 The proposed program will be carried out as a multiphase program, with two execution phases lasting approximately three years each. The phases will be supported by Bank financing of US\$58 million and US\$47 million, respectively, as shown in Table II-1. Phase I execution will begin in 2001 and will include the reconstruction and rehabilitation of sustainable rural roads damaged by the earthquake. The multiphase program modality makes it possible to adapt the scale of the operation to the borrowing levels agreed on by El Salvador in the operations program. It has also helped the authorities establish agreed upon benchmarks in the MOP institutional reform process that will serve as the foundation for ensuring the sustainability of the road system. The proposed program will support implementation of the institutional reform by allocating resources to establish a sustainable mechanism for road maintenance, and the program to include microenterprises in road maintenance activities. The program monitoring system, which consists of annual meetings and monitoring, will help provide the authorities and the Bank with flexible support in fulfilling the agreed upon objectives and goals.

Table II-1
Cost and financing (in millions of U.S. dollars)

Category	Phase I			Phase II		
	IDB	MOP	Total	IDB	MOP	Total
1. Engineering and administration	6.19	0.93	7.12	6.50	1.10	7.60
2. Direct costs	48.01	7.17	55.18	40.00	7.00	47.00
2.1 Rehabilitation and improvement of rural roads	34.37	5.14	39.51	38.50	6.80	45.30
2.2 Rehabilitation and improvement of earthquake-damaged rural roads	9.94	1.48	11.42	0.00	0.00	0.00
2.3 Maintenance plan support	3.70	0.55	4.25	0.00	0.00	0.00
2.4 Institutional strengthening	3.22	0.48	3.70	1.50	0.20	1.70
3. Finance charges	0.58	8.54	9.12	0.50	6.50	7.00
Program total	58.00	17.12	75.12	47.00	14.60	61.60

C. Program description

- 2.3 The program has four components: (i) the first component will support the rehabilitation and improvement of approximately 600 km of tertiary gravel roads in rural areas (300 km in each phase); (ii) the second component will support the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads that were damaged by the 13 January 2001 earthquake; (iii) the third component will support the establishment of new road maintenance systems, during phase I of the program; and (iv) the fourth component will contribute to the MOP modernization process in terms of its role as the agency in charge of regulation, planning, promotion and supervision for the road infrastructure.
- 2.4 ***Rehabilitation and improvement of rural roads*** (direct costs and engineering and administrative costs of US\$46.63 million for the first phase and US\$52.9 million for the second phase): In the first phase, this component will finance the rehabilitation and improvement of approximately 300 km of roads that are part of the national government PNCSAR program. The roads for which calls for bids will be issued during the first year of the program have been selected, and the roads for the second and third years will be selected under the PNCSAR. The final engineering studies, economic evaluations, social and environmental impact assessments (EIAs), and bidding documents for the five projects for the first year sample have been completed. The MOP planned to issue the call for bids and prequalification in November 2000, following Bank procedures. At that time, the MOP was also to submit to the Bank a preliminary list of prospective projects for the second year, to be selected according to the ranking criteria established in consultation with the Interinstitutional Committee made up of the MOP, MAG, and COMURES, and agreed upon with the Bank.
- 2.5 The technical and economic feasibility of each selected project will be evaluated using the Highway Design Maintenance Model (HDM), Rural Road Model (RRM), and other applicable models. In addition, EIAs will be prepared for each project to

evaluate direct and indirect impact; prior consultations with communities affected by the project will be conducted; and PAMAs will be formulated, with the necessary measures to mitigate any adverse social and environmental impact.

- 2.6 ***Reconstruction and rehabilitation of earthquake-damaged rural roads*** (preliminary direct costs of US\$11.42 million): This component will be carried out during phase I of the program and will finance the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads damaged by the 13 January 2001 earthquake. The most severely damaged roads are located in the eastern area of Berlín-Santiago de María (Usulután) and the Bálsamo mountain range area. The MOP is currently preparing a program for reconstruction and rehabilitation of these roads, which will be used to select the ones to be financed under this component. The technical documents necessary for execution of the works will take into account the fact that the roads are located in an earthquake-prone area. Since the works will be definitive ones rather than emergency ones, emergency procurement procedures will not be followed under the program.
- 2.7 ***Support for the road maintenance plan*** (preliminary direct costs of US\$4.25 million for the first phase): This component will support the proposed strategy for road maintenance with resources for financing the maintenance activities, which will be carried out by FOVIAL/umc. Bank resources will be used to introduce a contractual maintenance modality and to help finance the hiring of microenterprises. Contracts for maintenance work will be let under the unit price modality based on the quantity of work done, according to standards, will include incentive and penalty mechanisms based on service quality assessment, and will be supervised by independent firms.
- 2.8 Support for FOVIAL/umc will enable it to let contracts for the annual maintenance of approximately 300 km of roads during the three years of phase I, at an estimated average cost of US\$5,000 per kilometer.
- 2.9 To ensure that sustainable improvements in the management and execution of road maintenance activities are made by completion of phase I, the borrower and the executing agency have agreed on an action plan to consolidate the process, beginning with the creation of the UMC and implementation and consolidation of FOVIAL. The action plan consists of two basic components: (i) annual goals for road maintenance activities (see Table II-2) and goals to increase the number of businesses and microenterprises hired to carry out these activities; and (ii) activities and commitments to promote and implement the institutional and legal changes needed to ensure that a stable organization in charge of road maintenance exists by completion of phase I.

Table II-2
Goals for the road maintenance action plan

Source	2001	2002	2003	2004	2005	2006
FOVIAL/UMC paved road system						
Periodic maintenance	100	200	350	500	650	800
Routine maintenance	500	1150	1850	2600	3300	4000
MOP/DGC paved road system						
Periodic maintenance	0	0	0	0	0	0
Routine maintenance	1500	1500	1300	1200	600	0
MOP/DGC gravel road system						
Periodic maintenance	0	0	0	300	500	700
Routine maintenance	2000	2000	2600	2800	3400	4000
Total system						
Periodic maintenance	100	200	350	800	1150	1500
Routine maintenance	4000	4650	5750	6600	7300	8000

- 2.10 ***Institutional strengthening*** (preliminary direct costs of US\$3.7 million for the first phase and US\$1.7 million for the second phase): This component will support the institutional reform of the MOP that is being carried out by the government. The goals and objectives of this component will largely be met during phase I; some additional resources have been provided for to consolidate the reform during phase II. Support will be provided for modernization of the MOP's institutional structure in order to enhance its efficiency and eliminate any redundancies. The proposed operation will provide FOVIAL, the UMC, and the MOP departments with resources for technical assistance, training, procurement of computer, communications, and laboratory equipment, and other logistical support.
- 2.11 As a result of execution of this component, by completion of phase I: (i) the Office of the Deputy Minister for Public Works under the MOP will have been reformed and its technical and administrative departments will have been reorganized; (ii) the country will have a road maintenance system in place, including regulations, procedures, and manuals governing contracts, staff, finances, etc.; a maintenance administration system for the system of priority roads; and a unit price and financial information system; (iii) the MOP department responsible for maintaining unpaved roads under national jurisdiction will have been reorganized, and a system for evaluating, prioritizing, and carrying out maintenance on lightly-trafficked rural roads (gravel) will have been developed; (iv) the environmental unit (UA) will have been strengthened, training provided for its staff, and procedures developed and manuals updated to reflect the new regulations of the Environment Act; (v) the planning department will have been modernized and equipped with investment planning and project evaluation tools, in accordance with a national policy for comprehensive management to reduce risk and vulnerability to natural disasters that

will be formulated with Bank support, as well as a an updated road survey, a reclassification of roads, and a review of road system jurisdictions; and (vi) the departments in charge of project execution and the administrative and financial departments of the MOP will have been strengthened.

D. Cost and financing

- 2.12 The initial estimated total cost of the program and the proposed financing are presented in Table II-3.

Table II-3
Costs and financing plan
(in millions of U.S. dollars)

Category	IDB	Local support	Total
1. Engineering and administration	6.19	0.93	7.12
1.1 Engineering and other studies	1.57	0.23	1.80
1.2 Supervision, auditing, and evaluation	3.85	0.57	4.42
1.3 Support for UCP	0.78	0.12	0.90
2. Direct costs	48.01	7.17	55.18
2.1 Rural road rehabilitation and improvement	34.37	5.14	39.51
2.2 Reconstruction and rehabilitation of earthquake-damaged rural roads	9.94	1.48	11.42
2.3 Maintenance plan	3.70	0.55	4.25
2.4 Institutional strengthening	3.22	0.48	3.70
3. Finance charges	0.58	8.54	9.12
3.1 Interest	0.00	8.07	8.07
3.2 Credit fee	0.00	0.47	0.47
3.3 Inspection and supervision	0.58	0.00	0.58
Program total	58.00	17.12	75.12

E. Goals and objectives

- 2.13 The goals and objectives of the proposed program are presented in Table II-4, and the detailed logical framework for phase I of the program is presented in Annex II-1.

Table II-4
Summary of the logical framework
Objectives, components, goals, and indicators

OBJECTIVES	DESCRIPTION	GOALS	
PROGRAM PURPOSE		Phase I	Phase II
The proposed program will promote passenger and freight transportation, thereby helping to reactivate the agricultural sector, integrate communities, and improve the standard of living for the rural population.			
PROGRAM GOAL			
To have a system of sustainable roads in rural areas that are adequately maintained to ensure year-round serviceability, road safety, and adequate environmental mitigation measures; a modernized institutional structure for the transportation sector; and new mechanisms for road maintenance.			
COMPONENTS OF THE PROGRAM			
Improving sustainable roads in rural areas			
1,000 km of sustainable roads in rural areas that are adequately maintained to ensure year-round serviceability, road safety, and measures to mitigate any adverse social and environmental impact.	During the two phases of the program, 600 km of the system of tertiary roads will be rehabilitated and improved, in addition to the 400 km currently being rehabilitated.	Upon completion of phase I, 300 km of sustainable roads in rural areas will be rehabilitated, bringing the total kilometers rehabilitated from 400 to 700 km and approximately 100 km of earthquake-damaged sustainable rural roads will be reconstructed and rehabilitated.	Upon completion of phase II, an additional 300 km of sustainable roads in rural areas will be rehabilitated, bringing the total kilometers rehabilitated to 1,000.
Strategy for road maintenance sustainability			
To support the road maintenance sustainability strategy, which includes developing new maintenance and execution mechanisms and new options for securing permanent, stable resources.	Maintenance of the system of priority maintainable roads (paved and gravel tertiary roads)		
	A road maintenance and execution mechanism is established through the creation of FOVIAL or the consolidation of the Contractual Maintenance Unit (UMC).	Upon completion of phase I, FOVIAL or the UMC will service at least 50% of the priority maintainable road system (approx. 1,850 km) by contracting businesses and microenterprises, while the MOP continues to maintain 1,300 km of this system on force account.	Upon completion of phase II, FOVIAL or the UMC will be responsible for 100% of the system of priority maintainable roads (approx. 4,000 km).
	Maintenance for the system of rural roads under MOP jurisdiction		
	The MOP is reorganized and strengthened to maintain the national system of rural roads not under the jurisdiction of FOVIAL or the UMC.	Upon completion of phase I, the MOP will service at least 50% of the system of rural roads not under the jurisdiction of FOVIAL or the UMC (approx. 2,600 km)	Upon completion of phase II, the MOP will service at least 80% of the system of rural roads not under the jurisdiction of FOVIAL or the UMC (approx. 4,000 km)
Institutional strengthening			
To modernize the institutional structure of the MOP in order to increase its efficiency and eliminate any redundancies.	Technical assistance, training, equipment procurement, and logistical support for establishing FOVIAL or the UMC; modernizing the MOP units in charge of planning and project execution, road maintenance, and finance and administration; and strengthening the Environmental Unit (UA).	Upon completion of phase I: <ul style="list-style-type: none"> • The Office of the Deputy Minister for Public Works will have been reorganized. • El Salvador will have a mechanism for executing road maintenance activities. • The MOP department charged with maintaining the unpaved road system under national jurisdiction will have been reorganized. • The UA will have been strengthened and trained. • The planning department will have been modernized and the road survey updated, with a reclassification of roads and a revision of the spheres of jurisdiction over roads. • The departments charged with project execution and the MOP administrative and financial departments will have been strengthened. 	

III. PROGRAM EXECUTION

A. Borrower and executing agency

- 3.1 The borrower will be the Republic of El Salvador. The executing agency for the program will be the MOP, through the Project Coordination Unit (UCP).

B. Program administration

- 3.2 Program execution and administration will be carried out by the UCP, which has been satisfactorily executing projects financed by the Bank and other organizations, including the BCIE, the JPIC (formerly, the OECF), USAID, the Government of China, etc. As a result of the MOP modernization, the UCP will be transformed into the Road Project Coordination Department, making its organizational structure more efficient and increasing its project execution capacity.
- 3.3 During program execution, the UCP will have the support of specific advisory services that will enable it to resolve problems in managing areas of expertise for which it does not have its own experts. Resources for these services have been provided for in the category of support for the UCP. The terms of reference for contracting these services have been agreed on with the Bank and are included in the technical files for the program.

C. Execution period and disbursement schedule

1. Works during the first year

- 3.4 The selection and preparation of projects for the first year has been completed, using criteria defined by and agreed on with the Bank. These criteria, which will also be used to select similar projects in the subsequent years of the program, are summarized in Section III.C.3.
- 3.5 The following are the roads selected for the first year: Comasagua – Teotepeque - La Perla (35.9 km); Opico – Tacachico – Paisnal -Aguilares (32.8 km); CA 4-Aguacayo - Suchitoto (19.7 km); San Antonio del Monte - San Pedro Puxtla (17.6 km); and Puente Cuscatlán - San Idelfonso (12 km).
- 3.6 In the development of all the engineering projects, geometric design standards have been followed and all necessary physical elements and traffic signs have been incorporated in order to comply with required road safety standards, which are determined by vehicle characteristics and the volume of traffic on the selected roads. In places where the road passes through or nearby populated areas, schools, health clinics, factories, or other places that attract significant pedestrian or non-motorized traffic, the number of traffic signs has been increased and the installation

of additional elements has been planned in order to direct traffic and protect pedestrians and non-motorized traffic.

- 3.7 The MOP is preparing a plan for reconstruction and rehabilitation of the earthquake-damaged rural roads, which will be used to select the ones covered under the proposed program (paragraph 2.6).

2. Conditions precedent to the first disbursement and the selection of projects

- 3.8 Prior to the first disbursement, the executing agency will submit to the Bank: (i) the detailed action plan for program execution; (ii) evidence that FOVIAL/UMC has been allocated resources to award contracts for maintenance of at least 500 km of the maintainable roads assigned priority during the first year of the program; and (iii) evidence that a social expert has been hired for the Environment Unit.

- 3.9 Prior to the Bank's authorization to initiate bidding on works for the second and third years, the supervisory meetings referred to in Section III.F.2 will be held to verify that:

- a. The program is progressing satisfactorily in accordance with the objectives and goals set forth in the logical framework, and any necessary corrective measures have been adopted to ensure the fulfillment of the program's objectives.
- b. The execution and maintenance mechanisms for the system of maintainable roads continue to operate with a clear mandate, and adequate funds. The borrower commits to allocating the necessary resources to ensure that the national road system is satisfactorily maintained, which are expected to be no less than US\$24 million annually. These resources will help ensure the fulfillment of the goals in the agreed on maintenance plan for maintenance activities carried out by contract, as well as on force account.
- c. Appropriate measures have been adopted to ensure that environmental quality control procedures have been followed during the various planning phases and execution of the works included in the program; all environmental conditions stipulated in Section III.G have been fulfilled.

3. Criteria for selecting projects

- 3.10 The projects to be financed under the program must meet the general criteria for rehabilitation and improvement works agreed on with the executing agency and included in the program's technical files. The basic criteria are: that the roads already exist, that they be selected based on their proven profitability and positive impact on the region's development, and that there are no legal problems associated with the road right-of-ways. Criteria that have been chosen for selecting and prioritizing projects include agro-economic variables, such as current and potential soil uses, area, and type of production; social variables, such as access to health

services, education, and population; environmental variables, such as environmental vulnerability and the existence of protected areas; and other variables that affect project engineering, such as topography, climate, and geology. The degree to which the projects complement the development plans of the Ministries of Agriculture and Economy, local governments, and communities will also be considered. In order to define the specific mitigating measures to be stipulated in the bidding documents and contracts for works and supervision, EIAs and PAMAs will be developed, and consultations with the people and authorities within the area affected by the project will be carried out for all rehabilitation and improvement projects, including those prepared for the reconstruction and rehabilitation of earthquake-damaged rural roads.

- 3.11 All designs and rehabilitation and improvement works will be carried out by contractors from the private sector. Technical supervision and quality control for works and environmental mitigation measures will be carried out by specialized firms that will be hired before the projects are contracted out.

4. Investment and disbursement schedule

- 3.12 The execution period for phase I of the program will be approximately three years, beginning on the date that the loan contract goes into effect. The estimated disbursement schedule is presented in Table III-1.

Table III-1
Disbursement schedule
(in millions of U.S. dollars)

Source	Year 1	Year 2	Year 3	Year 4	Total	
IDB – OC	13.53	19.93	14.95	9.59	58.00	77.2%
Local counterpart	3.99	5.89	4.42	2.82	17.12	22.8%
Program total	17.52	25.82	19.37	12.41	75.12	100.0%
	23.3%	34.40%	25.80%	16.50%	100.0%	

D. Evaluation of phase I and eligibility for phase II of the program

- 3.13 The fulfillment of the goals for phase I, including those related to institutional development and the environmental management plan, will be evaluated by hiring the consulting services necessary based on the terms of reference agreed on by the Bank and the executing agency. To this end, in addition to the goals, benchmarks, and means of verification have been agreed up on.
- 3.14 The Bank will proceed with phase II once it has been verified that phase I objectives have been met, including satisfactory execution of the works and fulfillment of the previously agreed on benchmarks. Progress made in complying with these conditions will be monitored during the periodic consulting meetings

described in paragraph 3.20. Once the following conditions have been fulfilled, a supervision and evaluation mission will be conducted:

- a. The levels of commitment for financing and disbursements for projects to rehabilitate and improve the approximately 300 km of sustainable roads are consistent with the Bank's standard practices for approving new operations in the same sector (at least 75% of the funds committed and 50% of the funds disbursed).
- b. An execution and maintenance mechanism has been established for the system of priority maintainable roads through the consolidation of FOVIAL and FOVIAL satisfactorily tends to at least 50% (approx. 1,850 km) of the system of priority maintainable roads by contracting businesses and microenterprises; FOVIAL has rules, regulations, procedures, and manuals governing contracts, staff, finances, etc.; a maintenance administration system for priority roads; and a unit price and financial information system.
- c. The MOP department charged with maintaining roads not under FOVIAL's jurisdiction has been reorganized; has a system for evaluating, prioritizing, and maintaining the road system; and tends to at least 50% of the system of rural roads not under FOVIAL's jurisdiction (approx. 2,600 km). Likewise, as the process of transferring responsibility for the system of priority maintainable roads to FOVIAL continues, the MOP will carry out work on force account for 1,300 km of this system.
- d. The UA has been strengthened and trained, possesses updated procedures and manuals that reflect the new rules and regulations of the Environment Act, and has developed environmental technical standards for rural roads throughout the country.
- e. The planning department has been modernized, has investment planning and project evaluation tools, as well as an updated road inventory, a reclassification of roads, and a revision of the spheres of jurisdiction over roads.
- f. The MOP department in charge of project execution has been strengthened in all aspects of construction and project supervision, possesses the tools to monitor projects, and has the capacity to make the necessary decisions for fulfilling the goals and objectives of each project.
- g. The MOP has a strengthened administrative and financial department and the systems for financial and accounting administration and internal audits function satisfactorily; audited financial statements are prepared and submitted on schedule according to Bank requirements; and the weaknesses identified and recommendations made through external audits are addressed.

- 3.15 A memorandum based on the evaluation report for phase I and on the findings of the supervision and evaluation mission will be prepared and submitted to the Board

of Executive Directors for consideration as a condition for possible approval of phase II.

E. Procurement of goods and contracting for works and services

- 3.16 The procurement and bidding processes plan is presented in Annex III-1. The awarding of contracts for the execution of works and consulting services and the procurement of equipment using the proceeds of the Bank will be carried out through bidding processes that adhere to Bank regulations and procedures. **Civil Works:** International competitive bidding (ICB) with prequalification will be required for those works involving amounts equal to or above US\$2 million. For civil works involving amounts from US\$300,000 to US\$1,999,999, local competitive bidding (LCB) will be required. **Consulting services:** ICB will be required for services involving amounts above US\$200,000. **Procurement of equipment:** ICB will be required for equipment procurements in amounts above US\$299,999, while procurements involving amounts from US\$100,000 to US\$299,999 will require LCB. Procurements and the awarding of contracts for works and services involving amounts under these figures will be conducted in accordance with Public Administration Procurement and Contracting Act, provided that it does not conflict with Bank policies. In the event of such a conflict, Bank procedures will take precedence.
- 3.17 Annual contracts, which may be extended until fully executed, will be entered into with microenterprises in amounts less than the equivalent of US\$100,000 annually per microenterprise. The contracts will be financed using the loan proceeds for a total of up to US\$3,700,000, will be awarded through competitive bidding based on a registry of microenterprises. FOVIAL will publish invitations for microenterprises to register in the registry in newspapers with a large national readership. The microenterprises will be evaluated based on, among other factors, their related experience and capacity to carry out planned activities. Before the first contract is awarded, the Bank must approve the detailed action plan for the activities to be carried out under the component for support for the road maintenance plan, the regulations for selection and rating of the microenterprises, and the draft contracts. Currently, the MOP has been implementing pilot programs and training courses for MOP staff in the execution and administration of road maintenance activities. Some of the topics covered in these courses are environmental management and practices and standards to ensure health and occupational safety. The courses will be open to interested microenterprises, helping to ensure that a steadily growing number of microenterprises will be prepared to compete for road maintenance projects.
- 3.18 Before a call for proposals is made for works, consulting services, or goods, the MOP will submit the following for the Bank's consideration: the final plans and designs for the works, technical and environmental specifications, terms of reference, a budget and price analysis, environmental licenses, and other necessary documents to be reviewed in order to have the Bank's nonobjection. In accordance

with the PAMAs, the environmental mitigation measures will include contingency plans to mitigate possible negative impacts resulting from the rehabilitation and improvement of the corresponding roads, as well as measures to mitigate indirect and induced impacts, or those resulting from any development prompted by improvements in the transportation infrastructure.

F. Monitoring and evaluation

1. Bank supervision

- 3.19 Supervision of the multiphase program will be carried out by the Country Office in El Salvador. In addition, annual administrative meetings are planned with the participation of the project team.

2. Annual meeting

- 3.20 Joint meetings with the Bank and the executing agency will be held annually, no later than 30 September, during the execution phase to assess the progress made in implementing the action plan and the annual investment plan for the previous year. The fulfillment of goals and objectives and efficiency indicators will be reviewed. The investment plan for the next year will be agreed upon, and the goals and any necessary corrective measures will be specified. At least 15 working days prior to each meeting, the MOP will submit to the Bank an annual progress report on compliance with contractual obligations and progress made in fulfilling the indicators and goals of the multiphase program presented in the logical framework (Annex II-1). In the event that the Bank finds deficiencies in program execution, the MOP will submit to the Bank a proposal outlining corrective measures and the corresponding implementation schedule.

3. Annual road maintenance report

- 3.21 The MOP will continue to submit an annual road maintenance report to the Bank, in keeping with agreed on terms for the operation in execution. The report for the previous year will be submitted within the first quarter of each year during the program execution period and the five years after the last disbursement in order to continually and adequately evaluate the execution of maintenance activities. In addition to what is called for in current contracts, the report will also contain an evaluation of the fulfillment of agreed on road maintenance goals, for maintenance carried out by contract and on force account, and a report on the implementation of FOVIAL.

4. External audit

- 3.22 The financial statements for the multiphase program will be submitted to the Bank annually during the program execution period and within 120 days following the close of the executing agency's fiscal year. The statements will be audited by a team of independent auditors acceptable to the Bank and will be consistent with

relevant Bank requirements. Proceeds from the Bank's loan will be used to finance the audits.

5. Ex post evaluation

- 3.23 Consistent with Bank policy, and in consultation with the executing agency, an ex post evaluation will not be conducted. Since it is a multiphase operation, the program provides for specific activities for monitoring physical and financial goals and evaluating the program's socioeconomic impact. The annual meetings will provide the necessary information and the opportunity to learn from the program.

G. Social and environmental impacts of the program

- 3.24 The program does not entail significant negative social and environmental impacts. Since it involves rehabilitating and improving existing roads in already developed areas, the impacts will be localized, foreseeable, and able to be mitigated. The rehabilitation works to be carried out under the program do not entail particular difficulties in construction, population resettlements, or plans to reroute roads.
- 3.25 Programs such as this one normally generate moderate negative environmental impacts. To ensure the environmental feasibility of this program, a strategy has been adopted that includes: (i) measures to protect against direct negative impacts, including those related to maintenance; (ii) measures to protect against indirect negative impacts; (iii) the consolidation of the executing agency's responsibility to carry out environmental management internally; and (iv) support for addressing the environmental aspects of these works for the entire country.
- 3.26 The measures for protecting against direct negative impacts are: (i) defining the General Environmental Technical Specifications for all projects and the Particular Environmental Technical Specifications when needed. These will be annexed to the works and supervision contracts and considered in the design of new sections of road; (ii) developing EIAs for each section of road and implementing the corresponding PAMAs with the specific protection measures; and (iii) contracting consulting firms on a short-term basis to carry out independent audits of the effectiveness of the environmental protection measures used during the construction phase.
- 3.27 These kinds of projects can generate potential negative indirect impacts as a result of the expansion of agriculture to marginal or fragile areas, the intensified use of agrochemicals, and changes in soil use, crops, and land tenure. The following are measures for addressing these types of indirect negative impacts: (i) EIAs, including basic parameters for monitoring of indirect impact and for coordination with any NGOs working in the area of influence of the project, and the corresponding PAMAs with specific protection measures will be prepared for each section or sections of road; (ii) in coordination with the MAG, municipalities, and NGOs working in the area, the UA will establish the baseline data, carry out

systematic monitoring to identify indirect impacts that could occur as a result of road rehabilitation, and recommend corrective measures if necessary; and (iii) consulting firms will be hired on a short-term basis to carry out independent audits of the effectiveness of the environmental protection measures used during the construction phase.

- 3.28 **Social and environmental impact assessments for selected projects.** The EIAs and PAMAs for the projects selected for the first year have been prepared and were presented for public consultation on 16 May this year. Inhabitants of the areas affected by the projects, local authorities, and users of the roads were consulted. The selected projects did not entail any significant negative social and environmental impacts that were not addressed by the EIAs and PAMAs. Population resettlements are not planned, and no ecologically fragile or protected areas, archaeological sites, or cultural or historical heritage sites will be affected.
- 3.29 The selected projects will be carried out in already developed agricultural areas where roads have been present for some time. There are no plans to modify any site that was not developed in the past, or reroute any roads. Studies have determined the environmental provisions and budget allowances needed to mitigate social and environmental impacts. According to these determinations, the percentages of the total amount allocated to directly mitigate social and environmental impacts for the following roads are: *Comasagua – Teotepeque (3.4%); Opico – Tacachico – Paisnal – Aguilares (5.3%); CA 4 – Aguacayo – Suchitoto (7%); San Antonio del Monte – San Pedro Puxtla (9.2%); and Puente Cuscatlán – San Idelfonso (5.9%)*. The UA has begun the paperwork for securing the required environmental permits for these projects and has verified that the environmental specifications are stipulated in the bidding documents and the first drafts of the contracts.
- 3.30 **Legal framework for environmental management.** The Environment Act (decree-law no. 233/98), whose general regulations were published on 29 March 2000, provides the current legal framework for environmental management. According to this legislation, an environmental permit is required before and during the operation of a project. The permitting process is regulated by article 22 of the Act, which stipulates that it must be submitted to the Ministry of Natural Resources and the Environment (MARN). The Environment Act regulates the environmental impact assessments, the procedures for public consultation, and the requirement that the contractor present a guarantee of compliance. In addition to complying with these regulations, the program will assist national environmental authorities in preparing the Environmental Technical Standards for Rural Roads for the entire country. These standards will reduce ambiguities and the preparation costs associated with the projects, and increase the effectiveness of the environmental protection measures.
- 3.31 **Environmental criteria.** The activities called for in the program will be based on environmental criteria that dovetail with the principles of sustainability. Any environmental effect is evaluated early on to prevent, mitigate, or compensate for

adverse environmental impacts. For this new operation, the EIAs and agreed on criteria incorporate the following adjustments, which reflect changes in the policies and regulations of the MARN and the Bank.

- a. In order to standardize environmental studies in El Salvador, the procedures, guidelines, and technical specifications prepared by the MARN will be used to develop the EIAs.
- b. At the Bank's request, the EIAs for the first year projects will be expanded to include consultations with the authorities and inhabitants of areas affected by each project. The eligibility criteria call for similar consultations for second- and third-year projects in phase I and for all projects in phase II. The consultations will focus on the needs and concerns of the groups that could be directly or indirectly affected by the projects.
- c. Since rehabilitation activities will be carried out on existing roads, and there are no plans to widen roads, population resettlements will not be required. As part of the general criteria, if population resettlements become necessary, the Involuntary Resettlement Policy (OP-710) approved by the Bank will be followed.

3.32 **Management and supervision of the environmental sector.** Although the MOP has demonstrated that it now has skilled staff trained to satisfactorily manage environmental issues related to the projects under the program, continued institutional strengthening is needed in order to consolidate the process of making environmental management an internal operation of the executing agency and an integral component in the cycle of projects. The UA will consolidate the following functions: (i) make the MOP's environmental policy and the environmental procedures integral parts of the project cycle; (ii) establish guidelines and ensure the preparation and implementation of the EIAs and PAMAs; (iii) verify that the environmental specifications are stipulated in the studies, bidding documents, and contracts; and (iv) supervise the construction and execution of works to ensure that the specifications are being followed. The institutional strengthening related to environmental aspects consists of contracting for technical assistance to support the MOP and the UA in analyzing road vulnerability to natural disasters; hiring a specialist for social issues; and continuing training programs, which include the provision of computer, transport, and laboratory equipment.

3.33 To ensure the social and environmental sustainability of the program, it is recommended that a clause be written into the loan contract describing the MOP's responsibility to prepare EIAs and PAMAs and conduct public consultations in the areas affected by the projects; hire a specialist for social aspects; and use the Bank's Involuntary Resettlement Policy in the event that any projects require resettlements.

IV. VIABILITY AND RISKS

- 4.1 The proposed program will help rehabilitate and improve approximately 600 km of tertiary gravel roads in rural areas that make up part of the national government's PNCSAR and that were neglected and inadequately maintained over a long period of time. In addition, the program will contribute to the reconstruction and rehabilitation of approximately 100 km of sustainable rural roads that were damaged by the 13 January 2001 earthquake. The projects that are part of this operation were selected by considering economic parameters and the degree to which they complement the development plans of the Ministries of Agriculture and the Economy, local governments, and communities.
- 4.2 The capacity of the UCP for project execution and the experiences acquired from previous operations financed by the Bank and during the first stage of PNCSAR were considered in establishing the technical, institutional, financial, economic, environmental, and social viability of this operation.

A. Technical justification

- 4.3 The rehabilitation and improvement works called for in the program do not present significant difficulties from a technical point of view, since the MOP, the UCP, and private businesses possess sufficient capacity and experience to successfully execute them. The MOP will have the support of consulting services from specialized firms for the supervision of civil works and the preparation of engineering studies.
- 4.4 The following gravel roads selected for the first year will be rehabilitated and paved: Comasagua – Teotepeque – La Perla; Opico – Tacachico – Paisnal – Aguilares; CA 4 – Aguacayo – Suchitoto; San Antonio del Mante – San Pedro Puxtla; and Puente Cuscatlán – San Idelfonso. The paving process will consist of improving the gravel bed, applying a grainy sublayer followed by a layer of gravel or crushed rock, and paving the surface with asphalt. The rehabilitation also includes the comprehensive installation of horizontal and vertical signs, and the addition of road safety components where necessary and especially in urban zones. As preventative measures, roadside embankments will be treated and special provisions will be made in areas prone to landslides. Environmental mitigation activities, such as reclaiming and leveling borrow pits and planting trees, will also be carried out.
- 4.5 The conclusion can be drawn from the program analysis that the program represents a feasible solution from technical and operational points of view. The following considerations are related to these conclusions:

- a. Standards and methods that are consistent with acceptable engineering practices and the current and projected traffic volume will be applied in the design of the program.
- b. Civil works will be executed based on the contracts awarded according to bidding processes and procedures that are consistent with applicable Bank regulations and procedures.
- c. Complex road rehabilitation and improvement will not be necessary, and, consequently, technical problems that delay the program are not anticipated.
- d. Due to the characteristics of the works, which will be carried out on existing roads, significant negative environmental effects are not expected. Nevertheless, the mitigation measures were considered in the Special Environmental and Technical Specifications for the Bidding Processes.

B. Economic justification

- 4.6 The sections of unpaved tertiary roads chosen for the first year of the program were initially selected by taking into account the socioeconomic characteristics of the areas affected by these sections and the degree of progress made in preparing the environmental and engineering studies. These sections were then separated into the following two groups: those sections located in areas where an established volume of traffic already exists, and those located in areas with low levels of economic activity where the traffic demand is not consolidated. Using this classification, four sections from the first group were selected. These were evaluated using the conventional methodology of measuring benefits by the savings in vehicle operation costs. One section was selected from the second group, and production increases resulting from improvements to the road were deemed to be the principle benefits.
- 4.7 The economic internal rate of return (EIRR) and the net present value (NPV) of the benefits will be estimated at an annual rate of 12% for the five road sections presented in Table IV-1. The figures for annual average traffic were based on vehicle counts, and projected increases were based on historical data. The financial costs of each section, which include the cost of works, studies, and maintenance over a 15-year period, are also indicated. Various pavement options were considered.
- 4.8 All the selected sections easily meet the minimum profitability criteria of 12% and have a positive NPV. The validity of these rates is supported by their reduced sensitivity to cost and benefit variations. The estimated high profitability rates reflect significant reductions in the cost of operating vehicles, due to improvements in the road surface and condition of these roads.

Table IV-1
Rehabilitation and improvement works
EIRR, NPV, and sensitivity estimates

Work	Length (Km)	Costs (in thousand s of U.S. dollars)	EIRR (%)	NPV (in thousands of U.S. dollars)	SENSITIVITY	
					+20 % Costs	-20 % Benefits
Comasagua - La Perla	35.9	4,110	23.6	2,940	18.1	18.9
Opico – Aguilares	32.8	4,050	25.5	2,030	20.3	19.5
CA 4 – Suchitoto	19.7	2,880	27.7	1,870	22.5	21.6
San Antonio – Puxtla	17.6	2,700	29.2	1,950	23.8	22.9
Pte. Cuscatlán - S. Ildefonso	12.0	1,560	24.7	811	19.6	18.9

- 4.9 An analysis of the distribution of costs and benefits among the income groups in the areas affected by the projects was carried out for each of the five sections. Based on sampling, it was determined that the resident population of the areas of influence with a monthly income below US\$206 (equivalent to twice the cost of the rural basic basket of goods and services) varies between 78% and 83%. Using vehicle counts, it was estimated that buses and light trucks represent between 70% and 80% of automotive traffic on these roads and pass on savings of between 60% and 80% in vehicle operation costs to low-income passengers. In addition, impacts on the employment of unskilled workers from expenditures on works and maintenance activities were considered, and it was estimated that 10% of the current value of these expenditures will represent income for groups defined as poor. Thus, it can be concluded that groups living below the poverty line will receive more than 50% of the benefits reaped from improvements to these roads.

C. Institutional and financial viability

- 4.10 The modernization of the road system and the redefinition of responsibilities put forth by the Salvadorian government will help ensure the existence of strengthened institutions and well-defined sectoral policies, which, in turn, will ensure the viability of the proposed program. The financial plan for the investment program for the road system, described in Section I.B.5, helps ensure the financial viability needed to execute the program. Budgetary limitations, which affect the transportation sector, are being overcome, and with the establishment of an execution and maintenance mechanism for the national road system, it is estimated that the necessary resources for ensuring road maintenance sustainability will be available within the execution period of the multiphase program.

D. Social and environmental viability

- 4.11 Since this is a program to rehabilitate and improve existing roads in already developed areas, the program does not entail significant negative social and environmental impacts. Environmental assessments and evaluations of

socioeconomic impacts have helped identify the possible negative impacts and contain recommendations on the preventative and mitigating measures to be adopted. These recommendations have been incorporated in the technical specifications and designs of the projects for the first year and will be used as eligibility criteria for the other projects that will make up the investment programs in coming years. Based on the evaluations of previous operations financed by the Bank, this program has actions planned to continue with the institutional strengthening of the MOP.

E. Benefits

- 4.12 The works called for in the proposed program will help ensure more affordable access to agricultural markets for surrounding areas, because of lower vehicle operation costs resulting from the improved condition of selected roads. The more functional, rehabilitated roads will help reduce travel times for passengers in light vehicles and buses. In addition, to the extent that savings in vehicle operation costs are passed on to passengers and farmers and that these people are members of low-income groups, the program will generate not only economic, but also social benefits resulting from an improved distribution of income in affected areas. These benefits will also be obtained from the reconstruction and rehabilitation of earthquake-damaged rural roads.

F. Social equity and poverty-targeted investment (PTI) classification

- 4.13 This operation qualifies as a project that promotes social equity, as defined in the key objectives for the Bank's activity contained in the report on the Eighth General Increase in Resources (document AB-1704). However, it does not qualify as a poverty-targeted investment (PTI).
- 4.14 Although some of the selection criteria favor communities that have limited access to services and have remained on the periphery of economic development, it is impossible to guarantee that the program will be able to maintain on a long-term basis the proportion of these kinds of communities required to qualify as a PTI. According to studies, which are available in the technical files of the program, it is estimated that over half of the potential beneficiaries of most of the projects for the first year have incomes below the poverty line, and, in general, the works called for in the program will help provide them with access to markets and productive and social services, thereby promoting social equity.

G. Risks

- 4.15 The proposed operation does not entail substantial risks. The experience acquired during the first phase of PNCSAR has been used in the design of this operation, and the program to modernize the MOP has made it possible to overcome the shortcomings that profoundly affected the execution of highway programs in the

past. The projects are within budget and on schedule, and there is good management and oversight of the works.

- 4.16 There is a risk that the procedures for approval of the loan contract with the Bank and its subsequent authorization by the Salvadorian legislature may take a long time, as has occurred with many of the loans approved by the Bank's Board of Executive Directors in recent years. However, in January 2001, the legislature approved four operations (loans 1041/OC-ES for modernization of the public sector; 1984/OC-ES for education technologies; 1092-OC-ES for modernization of the health sector; and 1203/OC-ES for modernization of the Legislative Assembly). For the five pending, the Salvadorian authorities indicated that progress has been made in building consensus with the Legislative Assembly on their approval. In addition, MOP authorities are coordinating efforts with mayors and other local representatives, who will help create the consensus needed to approve the proposed program.
- 4.17 To mitigate the risk posed by many road rehabilitation programs concerning the continuity and level of maintenance for the road system and the existing structural weaknesses in financing, planning, and road maintenance management, the program supports the government's Strategy for Sustainable Road Maintenance. The Bank is using resources from loan 840/OC-ES to the UMC to begin awarding contracts for maintenance activities on a limited scale and acquiring experience in the management, administration, and supervision of this financial modality. While FOVIAL is being implemented and consolidated, the UMC will be established in the unit responsible for implementation of the plan for contractual maintenance agreed on as part of the program. In addition, the concept of a multiphase operation constitutes a guarantee and an important incentive to ensure the fulfillment of this strategy and the various benchmarks and goals planned for in the program.

MULTIPHASE PROGRAM FOR SUSTAINABLE ROADS IN RURAL AREAS (ES-0129)
LOGICAL FRAMEWORK FOR THE PROGRAM (PHASE I)

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
GOAL			
Program will help enable the rural population to move people and goods, thereby stimulate the agricultural sector, create employment opportunities, and increase the income for the rural population.	<ul style="list-style-type: none"> Improvements in access to agricultural markets and reductions in vehicular operation costs, as a result of the enhanced functionality of rehabilitated roads, using such indicators as travel times, charges for public transportation, freight costs, and diversification and increase in supply. 	<ul style="list-style-type: none"> National transportation statistics Annual maintenance report User surveys 	<ul style="list-style-type: none"> Overall political and economic stability in the country
OBJECTIVE			
Development of sustainable roads in rural areas; adequate maintenance of the road network; adequate road passability, road safety, and environmental protection.	<ul style="list-style-type: none"> Upon completion of phase I, the rehabilitation of 800 km of sustainable roads in rural areas; the modernization of the institutional framework; and adequate mechanisms for carrying out maintenance on the national road network 	<ul style="list-style-type: none"> Periodic evaluations to determine the condition of the road network 	<ul style="list-style-type: none"> The government's continued support of the strategy to modernize the MOP. Sustainable and appropriate funding sources for maintenance
COMPONENTS			
Sustainable roads in rural areas	<ul style="list-style-type: none"> Upon completion of phase I, 400 kilometers of sustainable roads in rural areas are rehabilitated, bringing the total kilometers rehabilitated from 400 to 800. 	<ul style="list-style-type: none"> Independent evaluation report for phase I 	<ul style="list-style-type: none"> Availability of counterfunding
Access sustainability strategy	<ul style="list-style-type: none"> Upon completion of phase I, FOVIAL or the UMC tends to at least 50% of the priority maintainable road network (approx. 1,850 km) by contracting businesses and microenterprises, while the MOP continues to maintain 1,300 km of this network on force account. Upon completion of phase I, the MOP tends to at least 50% of the network of rural roads not under the jurisdiction of FOVIAL or the UMC (approx. 2,600 km) 	<ul style="list-style-type: none"> Annual monitoring meetings Program progress reports Annual maintenance report 	<ul style="list-style-type: none"> Compliance with the access selection and ranking criteria Continued political will for road maintenance mechanism
Strengthening	<p>Upon completion of phase I:</p> <ul style="list-style-type: none"> The Viceministry of Public Works will have been reorganized. El Salvador will have a mechanism for executing road maintenance activities. The MOP department in charge of maintaining the unpaved road network under national jurisdiction will have been reorganized. The UA will have been strengthened and trained. The planning department will have been modernized and the road inventory updated, with a reclassification of roads and a revision of the spheres of jurisdiction over roads. The departments charged with project execution and the MOP administrative and financial departments will have been strengthened. 		

OBJECTIVES ACTIVITIES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
s for, and contracting and nd consulting services for m components	<ul style="list-style-type: none"> Goals in accordance with the bidding and procurements plan (Annex III-1) and the execution and bidding processes schedule (in the technical archives for the program) 	<ul style="list-style-type: none"> Program progress report Audit report Supervision reports 	<ul style="list-style-type: none"> Acceptable proposals

OBJECTIVES	INDICATORS				MEANS OF VERIFICATION	ASSUMPTIONS
REHABILITATION AND IMPROVEMENT PROJECT						
OBJECTIVE						
Rehabilitate roads in rural areas and maintain them to ensure mobility, road safety, and generate social and economic benefits	In the two phases of the program, 700 km of the network of tertiary roads will be rehabilitated and improved, in addition to the 400 km that are currently being rehabilitated.				<ul style="list-style-type: none">Visual inspectionPeriodic reports carried out by an independent consultant on indicators measuring the passability of roads and the social and economic benefits within the area affected by the road	<ul style="list-style-type: none">Availability of resources to comply with maintenance plans as scheduledEffective control and enforcement of the maximum weights allowed
COMPONENTS						
Approximately 600 km of the network of tertiary roads	During each phase, 300 km of roads will be rehabilitated.				<ul style="list-style-type: none">Final supervision reportInaugural ceremony for the project	<ul style="list-style-type: none">Availability of credit fundsCompliance with selection and ranking criteria
		Contracted rehabilitation works	Total rehabilitated roads	Note		
	1999	145	0			
	2000	255	187			
	2001	209	400	Completion of current stage		
	2002	191	709			
	2003	100	800	Phase I completion		
	2004	100	900			
	2005	100	1,000			
	2006		1,100	Phase II completion		
ACTIVITIES						
Roads that make up the network for rehabilitation and maintenance	CURRENT PROJECTS: <ul style="list-style-type: none">By mid-2001, the rehabilitation of the 400 km of roads for the first stage will be satisfactorily completed.				<ul style="list-style-type: none">Program progress reportAudit reportSupervision reports	<ul style="list-style-type: none">UCP is strengthening to manage and execute projects
	FIRST YEAR PROJECTS: <ul style="list-style-type: none">Call for prequalification and proposals (until November 2000)Awarding of contracts (until June 2001)Execution and supervision (until June 2002)					
Technical engineering, economic, and environmental studies for the preparation of bidding documents						<ul style="list-style-type: none">The market of consultants and consulting firms is conducive to carrying out the planned bidding processes and generating acceptable offers

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Proposals for works and contracts and supervision	SECOND YEAR PROJECTS: <ul style="list-style-type: none"> • Selection (until November 2000) • Preparation of studies (until May 2001) • Completion of bidding documents (until May 2001) • Call for proposals for works and supervision (until June 2001) • Awarding of contracts (until December 2001) • Execution and supervision (until December 2002) 		
	THIRD YEAR PROJECTS: <ul style="list-style-type: none"> • Same as the second year, but one year later 		

OBJECTIVES	INDICATORS				MEANS OF VERIFICATION	ASSUMPTIONS	
ROAD MAINTENANCE SUSTAINABILITY PROJECT							
OBJECTIVE							
Develop a road maintenance strategy, which includes maintenance and execution of road works, and explore new options for securing resources	<ul style="list-style-type: none">A road maintenance and execution mechanism is established through the creation of FOVIAL or the consolidation of the Contractual Maintenance Unit (UMC).The MOP is reorganized and strengthened to maintain the national network of rural roads not under the jurisdiction of FOVIAL or the UMC.				<ul style="list-style-type: none">Annual road maintenance reportPeriodic evaluations of the condition of the road network	<ul style="list-style-type: none">The government's continued support of maintenance activity to develop the physical and social infrastructure of the countrySustainable, appropriate funding sources for maintenance	
COMPONENTS							
National network of priority roads (paved and gravel)	Upon completion of phase I, FOVIAL or the UMC maintains at least 50% of the priority maintainable roads by contracting businesses and microenterprises.				<ul style="list-style-type: none">Annual road maintenance reportProgram progress report	<ul style="list-style-type: none">Existence of appropriate sustainable funding sources for maintenance contracted by FOVIAL or the UMC	
		Total maintainable network (km)	Total maintained by the MOP (km)	Total maintained by FOVIAL or the UMC			
				(km)			%
	2000	3100	1500	0			
	2001	3300	1500	500			
	2002	3418	1500	1150			
	2003	3700	1300	1850			50%
	2004	3800	1200	2600			
	2005	3900	600	3300			
	2006	4000	0	4000			100%
National network of rural roads (dirt roads)	Upon completion of phase I, the MOP will maintain at least 50% of the network of rural roads.				<ul style="list-style-type: none">Annual road maintenance reportProgram progress report	<ul style="list-style-type: none">Existence of appropriate sustainable funding sources for maintenance carried out by the MOP for roads not under the jurisdiction of FOVIAL or the UMC	
		Network under MOP jurisdiction (km)	Maintenance on force account (km)	(%)			
	2000	5900	2000				
	2001	5700	2000				
	2002	5582	2000				
	2003	5300	2600	55%			
	2004	5200	2800				
	2005	5100	3400				
	2006	5000	4000	80%			

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
ACTIVITIES			
the roads to be	Annual management of maintenance activities:	<ul style="list-style-type: none"> • Program progress report • Audit report • Supervision reports 	
on system	<ul style="list-style-type: none"> • Update the inventory of roads to be maintained and resources (until September) • Prepare budget and annual maintenance plan (until December) 		
tenance plans	Contractual maintenance:		
uments for contracting	<ul style="list-style-type: none"> • Preparation of bidding documents (until October) • Call for proposals (until November) • Awarding of contracts (until December) • Execution and supervision of contracts (annual) 		
nce work	Maintenance by force account:		
osals	<ul style="list-style-type: none"> • Work plan (until December) 		
contracts			
nd supervision of			
locations			

OBJECTIVES		INDICATORS		MEANS OF VERIFICATION		ASSUMPTIONS	
PROJECTIVE							
Institutional structure of the MOP to increase its efficiency and reduce redundancy.		By the end of phase I, the MOP and its department in charge of maintaining the network of paved roads; and the UMC will be consolidated to maintain the primary network of paved roads; and the UMC will be trained and equipped with updated procedures and manuals that reflect the new regulations of the Environment Act.		Annual monitoring meetings		Continued government support for the strategy to modernize the MOP	
A substantial portion of the rural population of the project area will be trained and equipped with updated procedures and manuals that reflect the new regulations of the Environment Act.				Independent evaluation report for the first phase		Appropriate, sustainable funding sources for maintenance	
COMPONENTS							
The department responsible for the network of unpaved roads		The department of the MOP in charge of maintaining the network of unpaved roads		Monitoring of activities		Continued government support for the strategy to modernize the MOP	
The UMC has been strengthened and trained.						Continuity of skilled, managerial-level staff in the MOP departments	
The planning department has been modernized and the national road inventory updated, with a reclassification of roads and a revision of the spheres of jurisdiction over roads.							
The departments in charge of project execution and the MOP administrative and financial departments have been strengthened							
ACTIVITIES							
For, and contracting and consulting services for components		RESTRICTURING THE VMOP		Program progress report			
Consulting services for implementation of the VMOP modernization		(until June 2002)		Audit report			
FOVIAL or the UMC		(until June 2002)		Supervision reports			
Consulting services to prepare rules, regulations, procedures, and manuals governing contracts, staff, finances, etc.		(until June 2002)					
Updating the maintenance administration system for the priority road network		(until December 2001)					
Analysis of unit prices and execution methodologies		(until December 2001)					
Training and education of microenterprises, equipment procurement, and logistical support		(until December 2003)					

OBJECTIVES	INDICATORS		MEANS OF VERIFICATION	ASSUMPTIONS
ROAD STRENGTHENING PROJECT				
ACTIVITIES				
for, and contracting and and consulting services for n components	Road Preservation Department <ul style="list-style-type: none">System for evaluating, prioritizing, and executing maintenance on the network of lightly-trafficked rural roads (gravel)Training, equipment procurement, and logistical support	(until December 2002) (until December 2003)	<ul style="list-style-type: none">Program progress reportAudit reportSupervision reports	
	ENVIRONMENTAL UNIT <ul style="list-style-type: none">Preparation of environmental technical standards for rural roads for the entire countryAdditional manuals and guidelines for enforcing social and environmental standardsTraining, equipment procurement, and logistical support	(until December 2001) (until December 2001) (until December 2003)		
	ROAD PLANNING UNIT <ul style="list-style-type: none">Updating and organizing standards and manuals on road infrastructureUpdating the road inventory and reclassifying roadsPreparation of a multiyear investment plan for the road networkTraining in project evaluation, equipment procurement, and logistical support	(until June 2001) (until December 2001) (until December 2002) (until December 2003)		
	ROAD PROJECT COORDINATING DEPARTMENT <ul style="list-style-type: none">Consulting services for updating rules, regulations, procedures, and manuals governing contracts for road worksTraining in project administration, equipment procurement, and logistical support	(until December 2001) (until December 2003)		
	ADMINISTRATIVE AND FINANCIAL DEPARTMENT <ul style="list-style-type: none">Technical assistance and consulting services for financial, administrative, and accounting aspectsTraining in project administration, equipment procurement, and logistical support	(until December 2003) (until December 2003)		

MULTIPHASE PROGRAM FOR SUSTAINABLE ROADS IN RURAL AREAS
PROCUREMENT SCHEDULE

	TOTAL (in thousands of U.S. dollars)	IDB %	LOCAL %	Method	Prequal- ification	SPN date of publication
CIVIL WORKS:						
Comasagua – Teotepeque	4,109	87	13	ICB	Yes	2001
Opico – Tacachico – Paisnal – Aguilares	3,715	87	13	ICB	Yes	2001
Aguacayo – Suchitoto	2,686	87	13	ICB	Yes	2001
San Antonio del Monte- San Pedro Puxtla	2,636	87	13	ICB	Yes	2001
Puente Cuscatlán – San Idelfonso	1,558	87	13	ICB	Yes	2001
2 nd year rehabilitation works	1/	87	13	ICB	Yes	2001
3 rd year rehabilitation works	1/	87	13	ICB	Yes	2002
Works for rehabilitation of earthquake- damaged rural roads	11,420	87	13	ICB	Yes	2001
Road maintenance works	4,250	87	13	4/	N/A	2001
CONSULTING SERVICES:						
Design and studies for 2 nd year works	600	87	13	2/	Yes	2001
Design and studies for 3 rd year works	600	87	13	2/	Yes	2001
Design and studies for 1 st year works – second phase	600	87	13	2/	Yes	2002
Supervision of 1 st year works	1,470	87	13	2/	Yes	2001
Supervision of 2 nd year works	1/	87	13	2/	Yes	2001
Supervision of 3 rd year works	1/	87	13	2/	Yes	2002
External audits	600	87	13	ICB	Yes	2001
Technical assistance to strengthen the MOP	3,000	87	13	3/	N/A	N/A
Technical assistance to strengthen FOVIAL-UMC	500	87	13	3/	N/A	N/A
PROCUREMENT OF GOODS:						
Equipment to support the MOP strengthening	800	87	13	2/	N/A	N/A
Equipment to support the FOVIAL/UMC strengthening	300	87	13	2/	N/A	N/A

ICB = International competitive bidding

LCB = Local competitive bidding

1/ The specific amounts for the rehabilitation works and supervision contracts to be bidded on in the second and third years will be defined based on the agreed upon program criteria, and Bank regulations for procurements will be applied.

2/ ICB, LCB, or *price quotations* will be used depending on the amounts involved for each specific contract.

3/ Bank procedures will be applied depending on the amount of the contract.

4/ Procedures agreed on by the Bank and the executing agency will be applied.

PROPOSED RESOLUTION

**EL SALVADOR. LOAN No. ____/OC-ES TO THE REPUBLICA DE
EL SALVADOR**

(Multi-Phase Program for Sustainable Roads in Rural Areas, Phase I)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the República de El Salvador, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a Multi-Phase Program for Sustainable Roads in Rural Areas, Phase I. Such financing will be for the amount of up to US\$58,000,000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the "Special Contractual Conditions" and the "Financial Terms and Conditions" of the Executive Summary of the Loan Proposal.