

ECUADOR

LOCAL ROADS PROGRAM

(EC-0211)

LOAN PROPOSAL

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BASIC SOCIOECONOMIC DATA

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

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

INFORMATION AVAILABLE IN THE RE3 TECHNICAL FILES

Preparation:

Rural transportation infrastructure program (PIRT). Loan 1282/OC-EC. Document and loan agreement

Monitoring of PIRT performance indicators. Ayala Consulting Cia Ltda. Quito, Ecuador, June 2003

Social evaluation of beneficiaries and socioeconomic, cultural, environmental, and gender impact. Fundación Consultora Prosperar. Quito, Ecuador, March 2003

Local Roads Program. Framework Document. Local Roads Unit, Public Works Ministry. August 2003

Methodology for economic evaluation of rural road rehabilitation projects. PIRT. Development Ideas, Inc. Final report of consulting services. January 2002

Legal bases for application of the Organic Act on Fiscal Responsibility and Transparency and for the institutional consolidation of the Assistant Secretariat for Public Investment in the Ministry of Finance and the Economy. Juan Pablo Aguilar, consultant. IDB. Quito, November 2002

Environmental and social report. Typical package of 10 roads, 165 km. Local Roads Unit. Quito, Ecuador. September 2003

Ex post evaluation report on execution of the technical specifications. Local Roads Unit. Quito, Ecuador. November 2002

Drafting of the manual for participatory road planning and pilot application in one province. Local Roads Unit. Emilio Salomón. Quito, March 2002

Design of the operating system for routine maintenance of local roads with microenterprises: Guide No. 1, criteria for classification of surfaced local roads; Guide No. 2, methodology for determining levels of service; Guide No. 3, methodology for drafting basic plans for routine maintenance; Guide No. 4, methodology for fixing differential rates; Guide No. 5, promotion, organization, and hiring of road maintenance microenterprises; Guide No. 6, technical support, supervision, and evaluation of road maintenance microenterprises. José Yeng. PIRT. Local Roads Unit. Quito, October 2002

Design of the operating system for routine local road maintenance by microenterprises. Trainer's Guide: courses for management and road training for routine maintenance associations. José Yeng. PIRT. Local Roads Unit. Quito, October 2002

Institutional and financial framework for sustainable management of rural roads in six Ecuadorian provinces. Emilio Salomón. Quito, November 2001

Tripartite agreement between the Local Roads Unit UCV-MOP, the Municipality of Urcuquí, and the Imbabura province government on joint financing for routine maintenance of the Imantag-Quitaumba-Coñaquí-Peribuela local road. Quito, Ecuador. October 2000

Study of financial alternatives for provincial rural road management. Working paper. Emilio Salomón. PIRT. Local Roads Unit. Quito, July 2001

Manual on consultation and involvement of the community and provincial and local officials. Project cycle. Gioconda Benavides Vinuesa. PIRT, Local Roads Unit. Quito, March 2002.

Execution:

Program operations manual, preliminary version. Local Roads Unit, Public Works Ministry. November 2003

Local roads program. Rehabilitation plan for the first year. Economic analysis. Imbabura and El Oro provinces. Local roads unit, MOP. October 2003

Participatory road plan for Imbabura province. Ibarra, Imbabura, Ecuador. August 2002

Certificate of incorporation of the Imbabura Province Road Management Corporation. Ibarra, Imbabura, Ecuador. August 2002

Strategic social and environmental evaluation. Fundación Natura. Quito, October 2003

Road and management training courses for road maintenance associations. PIRT, Local Roads Unit. José Yeng. Quito, October 2002

ABBREVIATIONS

ADC	Andean Development Corporation
AME	Asociación de Municipalidades de Ecuador [Association of Ecuadorian Municipalities]
AOP	Annual operating plan
BCE	Central Bank of Ecuador
CCE	Comité de Coordinación Estratégica [Strategic Coordination Committee]
CESI	Committee on Environment and Social Impact
CI	Income accounts
CODENPE	Consejo de Desarrollo de las Nacionalidades y Pueblos del Ecuador [Council for Development of the Nations and Peoples of Ecuador]
CONAJUPARE	Consejo Nacional de Juntas Parroquiales de Ecuador [National Council of Ecuadorian Parish Boards]
CONAM	Consejo Nacional de Modernización del Estado [National Council for Modernization of the State]
CONCOPE	Consortio de Consejos Provinciales [Association of Provincial Councils]
CRP	Revolving payment accounts
CVC	Comité Vial Comunal [Local Road Committee]
DC/PCV	Framework document. Local Roads Program
ESSA	Environmental and Social Strategy Assessment
GOE	Government of Ecuador
GS	gobierno seccional [subnational government]
IBRD	International Bank for Reconstruction and Development (IBRD)
IGVPs	Institutos de Gestión Vial Provincial [Provincial Road Management Institutes]
ILO	International Labor Organization
INEC	Instituto Nacional de Estadísticas y Censos [National Statistics and Census Institute]
ICB	International competitive bidding
IRR	Internal rate of return
JP	Juntas Parroquiales [Parish Boards]
LORETF	Organic Act on Fiscal Responsibility, Stabilization, and Transparency
MEF	Ministry of the Economy and Finance
MEMV	Microempresas de Mantenimiento Vial [Road Maintenance Microenterprises]
MOP	Ministry of Public Works and Communications
NGO	Nongovernmental organization
OC	Ordinary Capital
ODEPLAN	Oficina de Planificación Nacional [National Planning Office]
OM	Operations Manual
PCR	Program completion report

PCV	Programa de Caminos Vecinales [Local Roads Program]
PIAV	Plan de inversión anual vial provincial [Annual Provincial Road Investment Plan]
PIRT	Programa de Infraestructura Rural de Transporte [Rural Transportation Infrastructure Program]
PPI	Multiyear Investment Plan
PVPP	Plan Vial Provincial Participativo [Participatory Provincial Road Plan]
RED	Roads Economic Decision Model
SBQC	Selection based on quality and cost
SIGAS	Sistema de Gestión Ambiental y Social [Environmental and Social Management System]
SIGEF	Sistema de Gestión Financiera [Financial Management System]
SUMA	Sistema único de manejo ambiental [Unified system for environmental management]
UCV	Unidad de Caminos Vecinales [Local Roads Unit]
VAT	Value added tax



ECUADOR

IDB LOANS

APPROVED AS OF SEPTEMBER 30, 2003

	US\$Thousand	Percent
TOTAL APPROVED	3,873,243	
DISBURSED	3,690,434	95.28 %
UNDISBURSED BALANCE	182,809	4.71 %
CANCELATIONS	539,490	13.92 %
PRINCIPAL COLLECTED	1,724,641	44.52 %
APPROVED BY FUND		
ORDINARY CAPITAL	2,848,942	73.55 %
FUND FOR SPECIAL OPERATIONS	935,637	24.15 %
OTHER FUNDS	88,664	2.28 %
OUTSTANDING DEBT BALANCE	1,965,792	
ORDINARY CAPITAL	1,374,948	69.94 %
FUND FOR SPECIAL OPERATIONS	583,813	29.69 %
OTHER FUNDS	7,031	0.35 %
APPROVED BY SECTOR		
AGRICULTURE AND FISHERY	1,119,355	28.89 %
INDUSTRY, TOURISM, SCIENCE AND TECHNOLOGY	471,374	12.17 %
ENERGY	322,579	8.32 %
TRANSPORTATION AND COMMUNICATIONS	330,433	8.53 %
EDUCATION	209,597	5.41 %
HEALTH AND SANITATION	374,645	9.67 %
ENVIRONMENT	96,219	2.48 %
URBAN DEVELOPMENT	239,532	6.18 %
SOCIAL INVESTMENT AND MICROENTERPRISE	296,405	7.65 %
REFORM AND PUBLIC SECTOR MODERNIZATION	383,285	9.89 %
EXPORT FINANCING	0	0.00 %
PREINVESTMENT AND OTHER	29,819	0.76 %

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



ECUADOR

STATUS OF LOANS IN EXECUTION AS OF SEPTEMBER 30, 2003

(Amount in US\$ thousands)

APPROVAL PERIOD	NUMBER OF PROYECTS	AMOUNT APPROVED*	AMOUNT DISBURSED	% DISBURSED
<u>REGULAR PROGRAM</u>				
Before 1997	1	20,373	20,279	99.54 %
1997 - 1998	7	203,593	166,434	81.75 %
1999 - 2000	4	36,400	25,043	68.80 %
2001 - 2002	6	135,000	5,792	4.29 %
2003	1	200,000	100,000	50.00 %
TOTAL	19	\$595,366	\$317,548	53.34 %

* Net of cancellations. Excludes export financing loans.



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

Ecuador

Tentative Lending Program

2003

Project Number	Project Name	IDB US\$ Millions	Status
EC0216	Social Sector Program	200.0	APPROVED
EC0193	Coastal Resource Management Program II	13.0	
EC0211	Rural Road Program	40.0	
EC1001	External Trade Support Program	5.0	
Total - A : 4 Projects		258.0	
TOTAL 2003 : 4 Projects		258.0	

2004

Project Number	Project Name	IDB US\$ Millions	Status
EC0101	Strengthening of the Seguro Social Campesino	5.0	
*EC1002	Banco Pichincha Trade Finance Facility	20.0	
EC1003	Prevention and early warning - Cotopaxi volcano	5.0	
*EC0208	Interagua (Guayaquil Water and Sanitation Project)	28.0	
EC1004	Competitiveness Program	80.0	
*EC1005	Quito International Airport	75.0	
Total - A : 6 Projects		213.0	
*EC0214	Pichincha Bank Mortgage Bond	18.0	
Total - B : 1 Projects		18.0	
TOTAL - 2004 : 7 Projects		231.0	
Total Private Sector 2003 - 2004		141.0	
Total Regular Program 2003 - 2004		348.0	

* Private Sector Project

LOCAL ROADS PROGRAM

(EC-0211)

EXECUTIVE SUMMARY

Borrower:	Republic of Ecuador	
Executing agency:	Ministry of Public Works and Communications (MOP) through its Local Roads Unit	
Amount and source:	IDB (OC):	US\$30 million
	Cofinancing (WB):	US\$30 million
	Local:	US\$33 million
	Total:	US\$93 million
Financial terms and conditions:	Amortization period:	20 years
	Grace period:	5 years
	Disbursement period:	
	Minimum term	3 years
	Maximum term	5 years
	Interest rate:	LIBOR-based option
	Inspection and supervision:	0%
	Credit fee:	0.25%
	Currency:	U.S. dollars under the Single Currency Facility
	The interest rate, credit fee, and inspection and supervision fee mentioned in this document are established pursuant to document FN-568-3 Rev. and may be changed by the Board of Executive Directors, taking into account the Finance Department's semiannual recommendation. In no case will the credit fee exceed 0.75%, or the inspection and supervision fee exceed 1%, of the loan amount. ¹	
Objectives:	The main objective of the program is to improve the poor rural population's access to social services, markets, and other income-generating activities, thus improving their quality of life and supporting the fight against poverty.	

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

Its specific objectives are to: (i) improve road infrastructure and rural transportation services, ending the physical isolation of much of the country's rural population; (ii) develop efficient and sustainable systems for decentralized management of rural transportation, while strengthening the institutional, technical, and operational capability of the provincial and municipal councils; (iii) improve the quality of spending on local roads which is considered sufficient to maintain the network; (iv) encourage public participation in the entire project cycle; and (v) support development of the local market for small road contractors and consultants.

Description:

The program draws on the experience of the *Rural Transportation Infrastructure Program* (PIRT, innovation loan 1282/OC-EC), deepening a sustainable model for decentralized management of rural roads to give permanent access to poor rural communities. To do this, subnational governments (provincial and municipal councils) will rehabilitate a substantial portion of the local and tertiary road network under their jurisdiction, applying technical standards that are low cost but good quality and suited to the demand for and nature of the roads, to expand coverage in terms of geography and population and guarantee the preservation of the roads by immediately establishing a system for their routine maintenance by microenterprises organized by local residents. This approach has proved highly efficient for guaranteeing the roads' useful life. The program will also repair paths for nonmotorized transportation (footpaths or pack trails) by using partially remunerated unskilled local labor, to link extremely remote communities.

The program will promote the organization and coordination of subnational governments in a given province by setting up Provincial Road Management Institutes (IGVP) with a high degree of technical, financial, operational, and administrative autonomy to make road management more professional and improve the quality of subnational governments spending on them. Through the Local Roads Unit (UCV), the program will promote the establishment, consolidation, and strengthening of these IGVP. Division of responsibility will be explicit to prevent overlapping and ambiguities: the UCV will be responsible for providing technical, institutional, and financial assistance and monitoring the IGVP, and will ensure that they adhere to the program regulations; the IGVP will be responsible for hiring contractors for the works, design and supervision, and road maintenance.

Coordination with other donors:

Coordination with other donors is critical because of the nature of the program. In addition to the cofinancing with the IBRD there will be activities with the Andean Development Corporation (ADC), the principal financial supporter of the MOP, to guarantee there is no duplication of effort. Other activities involve the Public Finance Management Project (WB) for implementation of the financial management system, the International Labor Organization (ILO) for routine maintenance microenterprises, and several agencies, through the Bank's Country Office in Ecuador, for social inclusion of indigenous groups and Afro-Ecuadorians (paragraph 1.19 to paragraph 1.22).

The Bank's country and sector strategy:

There are four pillars in the Bank's strategy: (i) economic stabilization; (ii) poverty reduction, human capital formation and social inclusion; (iii) efficient management of the infrastructure with private sector participation; and (iv) modernization of the State and decentralization. The sector strategy identifies tertiary and local roads and decentralized management as essential elements. The program addresses key elements for both concerns by improving basic infrastructure, such as roads, as a precondition to alleviate and reduce rural poverty while creating jobs and social opportunities for residents currently without access to social, public, civic, and economic services. By supporting improvements in the decentralized management of tertiary and local roads—a major factor in the institutional and financial responsibility of subnational governments, the program will contribute to modernization of the State, the governance of local institutions, and citizen participation in a matter that is vital for their well being.

Environmental and social review:

The program works, like those of the PIRT, will be small-scale, involving repair of surfacing but not including paving, widening, or changes in alignment, and the improvement of trails (used for nonmotorized transportation). In this context most of the potential adverse direct environmental impact will be minor and concern the construction stage, and it can be avoided and controlled through standard mitigation measures. No negative indirect social and environmental impact is expected in the projects in the previously consolidated areas of the highlands and the coast, although there could be some in projects in some areas in the east, near protected areas or those with significant indigenous or Afro-Ecuadorian populations.

The program has an *environmental and social management system* (SIGAS), developed under the Environmental and Social Strategy Assessment (ESSA) conducted during preparation of this operation, which included: environmentally appropriate criteria for the selection of roads; procedures for evaluation and mitigation of social and

environmental impacts; environmental guides and manuals for road repair and maintenance; measures for protection and development of vulnerable groups, including indigenous and Afro-Ecuadorian populations; training and education in social and environmental issues for the IGVP, contractors, and local consultants; mechanisms for community participation and inclusion of ethnic groups and gender issues in the entire project cycle; and a system for monitoring and evaluating effective applications of the SIGAS.

The program was reviewed by the CESI at its meeting of 17 October 2003 and the ESSA was published on 14 October 2003.

Benefits:

The program's extensive benefits will include widespread economic and social effects; among short-term results it is expected to benefit about 300,000 rural residents, of whom 85% are poor and 54% extremely poor, by: (i) reducing the time and cost of transportation; (ii) reducing the time roads are closed and impassible; (iii) increasing and diversifying the supply of transportation and reducing fares for passengers and charges for freight; (iv) increasing school attendance and use of health centers; and (v) improving access to markets in general, and also to those that are more complex. In the medium and long terms these results will be consolidated, especially the impact on production and improved socioeconomic conditions of the target population. In addition, the establishment of 130 microenterprises for road maintenance will give permanent and stable jobs to 750 residents in the area of influence of the roads.

The institutional benefit is expected to be improved road management, incorporating road planning, and organizing spending by subnational governments on roads—currently disorganized and fragmented—through planned, orderly, transparent management through the IGVP, which will be accountable to the public. Given the importance of road management in the subnational governments responsibilities the program is expected to improve the quality of the decentralization of functions and the governance of local governments. The program will also develop the local market for consulting services, small road contractors, and road maintenance microenterprises, bringing local residents into the market economy and tapping their productive potential.

Risks:

The program risks are political, institutional, financial, technical, and social (acceptance):

- a. *Political*: the political risk includes acceptance by the subnational governments of the institutional and technical structure proposed by the program, without it being perceived as undercutting their authority. To mitigate this risk, the UCV will work closely with these officials.
- b. *Institutional*: establishment of the IGVP demands a radical change in the way roads are managed at the provincial level. The IGVP could be viewed with mistrust by the traditional technical structures, which could resist the transfer of responsibility or refuse to accept the new reporting structure. To mitigate this risk there are plans for transition strategies to demonstrate the ability of the IGVP to transform road management.
- c. *Financial*: for the subnational governments, payment of the counterpart funding will require reallocating financial resources to unforeseen activities. There is also the cultural factor that according to the traditional view public goods should be provided by the Ecuadorian government at no cost to users. To mitigate this risk, the program will have clear financial conditions for participation, will keep these obligations in line with subnational government resources and implement direct deposit systems for the counterpart funding so that there will be no loan disbursement for a given project unless local funds are available for it.
- d. *Technical*: the subnational governments have no experience in low-cost repair of roads, which are considered ill suited to meet demand and the climatic conditions. The PIRT experience, with hundreds of kilometers open, demonstrates that the approach adopted is sound, thereby mitigating the operation's technical risk.
- e. *Social and public acceptance*: the lack of road maintenance under the current management system, causes people to demand higher technical standards than needed (paving). Thus, a program to repair surfacing will likely encounter some resistance from the beneficiaries and local officials. This risk will be mitigated by well-defined technical standards and management that gives priority to road maintenance and intensive public consultation and participation throughout the project cycle. The risk will also be mitigated by the measures established in the participatory road planning and the geographical allocation and timeline for disbursement of the resources, which will ensure predictability in the program activities.
- f. *Sustainability of the IGVP*: IGVP sustainability upon program completion is a risk requiring complex measures for mitigation, such as criteria for merit-based distribution of resources (sustainability

criteria, paragraph 2.19b) in order to provide an incentive for proper operation of the IGVP, and as a result the subnational governments will transfer increasing resources and responsibilities to the IGVP, thus guaranteeing the program's success. If this should not occur, the program will in any event have: (i) demonstrated the management model's viability; (ii) helped to develop local technical capability (government and private); (iii) developed a system for participatory planning; (iv) included the community in the follow-up and civil control; (v) left a substantial part of the rural road network repaired; and (vi) won public acceptance for institutional and technical sustainability.

**Special
contractual
clauses:**

Conditions precedent to the first disbursement

Subject to the Bank's nonobjection, the UCV will (i) have the program's Operations Manual, duly approved by the MOP in force (paragraph 2.6); (ii) present the annual operating plan (AOP) for 2004, including activities and projects to be financed, timeline, and estimated budget (paragraph 3.20); (iii) have signed framework agreements with at least two provinces; (iv) have signed an agreement for additional financing with the IBRD or identified satisfactory alternative sources; and (v) have implemented and functioning to the Bank's satisfaction the UCV's system of internal accounting and control (paragraph 3.39).

Other conditions

For implementation

1. Prior to the first disbursement for a given province, it must be demonstrated to the Bank's satisfaction that: (i) framework and participation agreements implementing the program have been signed; (ii) the IGVP have been created and their officials duly appointed (provincial ordinances); and (iii) interagency agreements for financing (with provincial and municipal councils) and annual operation of the IGVP and their activities and for the counterpart contribution (paragraph 3.5);
2. If a province fails to comply with the obligations of the framework agreement, participation agreement, or annual operation agreement to the satisfaction of the UCV and the Bank: (i) no new activities will be included in that jurisdiction until the province has taken corrective steps to the Bank's satisfaction; (ii) the province in question will be excluded from the annual program of activities; and (iii) the province will be required to reimburse to the central government the amounts it received for execution of the program that were not properly applied (paragraphs 3.3 and 3.5).

For monitoring and evaluation:

The UCV will submit quarterly progress reports to the Bank (paragraph 3.19); it will contract for technical, environmental, and performance audits (paragraph 4.18g); it will hold semiannual meetings with the Bank to review program execution (paragraph 3.22); no later than 30 September each year starting in 2004 it will present the AOP, prepared with the participating IGVP (paragraph 3.20); and it will organize a special meeting for mid-term review 30 months after program startup or once 50% of the disbursements have been made, whichever occurs first (paragraph 3.26).

Poverty-targeting and social sector classification:

This operation qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). Furthermore, this operation qualifies as a poverty-targeted investment (PTI) according to the geographical criteria, since it will be carried out in rural areas with high poverty rates (paragraph 1.1). The borrowing country will not be using the 10 percentage points in additional financing (paragraph 4.15).

Exceptions to Bank policy:

The program will partially finance routine maintenance of the roads it repairs, on a gradually declining scale, until the function is fully assumed by the subnational governments. An exception to the applicable Bank policy is therefore requested (paragraph 2.34).

Exceptions to procurement procedures: (i) works: the IGVP will be allowed to hire local road committees directly to repair pack trails and microenterprises for routine maintenance of local and tertiary roads for amounts not greater than US\$50,000 (paragraph 3.35); and (ii) consulting services: the UCV will be allowed to hire individual consultants directly for amounts not greater than US\$30,000 (paragraph 3.31).

Revolving fund: in view of the program's multiple coexecutors, for whom collection of information documenting expenditures may be delayed and hamper the operation of the program, authorization is requested to use up to 10% of the financing to establish a revolving fund (paragraph 3.42).

Procurement:

Contracting for works and consulting services and procurement of goods will be done in accordance with the Bank's procurement policies and procedures, with the above-mentioned exceptions.

International competitive bidding (ICB) will be required as follows: for the procurement of goods, contracts equal to or greater than US\$250,000; for works, contracts equal to or greater than US\$3 million; and for consulting services, contracts equal to or greater than US\$200,000.

I. FRAME OF REFERENCE

A. Rural poverty and local roads

- 1.1 Ecuador has a high rural poverty rate; 86% of the rural population lives below the poverty line and a high percentage (54%) below the extreme poverty line.¹ This circumstance is aggravated by a lack of access for the poor to economic services (markets, job opportunities, agricultural extension, etc.), social services (education, health), public services (transportation, power, potable water, irrigation, telecommunications), and civic and political services (safety and effective representation), due primarily to their isolation. Improved access, though insufficient by itself, is necessary to solve the problem, because it topples one of the main pillars of poverty, isolation.
- 1.2 Ecuador's road network is about 43,200 km, of which 5,600 (13%) are paved, 25,500 km (59%) are surfaced or have a light coat of asphalt, and the remaining 12,100 km (28%) are dirt or gravel roads. More than half (51%) of the road network is in the highlands (22,000 km), 38% along the coast (16,400 km), and the remaining 11% in the Amazon or the islands (4,800 km). The main network, officially called the state road system, includes primary and secondary roads under the direct responsibility of the Ministry of Public Works and Communications (MOP), which total 9,500 km. The remaining 33,700 km of roads are the networks of tertiary and local (rural) roads, representing 78% of the national road system. Provincial and municipal councils share jurisdiction for rural roads, subject to technical, institutional, and financial limitations that prevent them from providing quality service.
- 1.3 Rural roads, which support the development of local and regional socioeconomic relations, are barely passable, owing largely to management (or lack of it) based on the cycle of repair, neglect, deterioration, and the need for more repair. This causes long travel times, limited use or impassability in some seasons, and problems of accidents with people and animals, thus aggravating the isolation of the rural communities.

B. Legal and institutional framework related to the program

- 1.4 Under the Constitution, the MOP is the governing body for roads; its road policy is to modernize and deconcentrate its operations and lay the foundations for

¹ The population whose income level makes the basic shopping basket unaffordable. The general poverty rate in the country is 61% of the total population; the rate for the 19 provinces covered in the program is 69%.

subnational governments² to effectively discharge their responsibility for the legally decentralized rural road network through the implementation of a sustainable management model.

- 1.5 The Constitution tasks provincial governments with responsibility for local roads, while the laws governing municipal and provincial systems specify the administrative and financial autonomy of the subnational governments and give them authority to manage local roads. This authority was ratified in the laws for decentralization and modernization of the State. This legal framework does not differentiate the jurisdiction of provinces and municipalities. Provincial governments are responsible for rural road management, taking into account the active participation of the municipalities and parish boards. This relative institutional ambiguity has not led to disputes over authority, but the results in terms of management have been unsatisfactory because of problems of technical ability, internal organization, and budgetary constraints. The MOP has refrained from involvement in this network except to resolve emergency problems and the isolation of communities with critical urgent needs.

C. Legal framework for program financing

- 1.6 The Organic Act on Fiscal Responsibility, Stabilization, and Transparency (LORETF) and its regulations establish certain restrictions on the Government of Ecuador's public debt, especially its interaction with subnational governments. The act authorizes the government to borrow from multilateral organizations, to transfer resources to the subnational governments when they do not have access to credit because of inability to pay, lack of management skills, or an inability to satisfy their citizens' unmet basic needs. The MOP and the Bank consider the program fully consistent with these assumptions, given the lack of management capacity on the part of the subnational governments to undertake the effort as conceived. Evidence of this is the current deteriorated state of rural roads, explaining why it is proposed that this program's objectives include strengthening of the institutional management capacity of the subnational governments to make the necessary investments in repair and maintenance of rural roads through the establishment of the Provincial Road Management Institutes (IGVP).

D. The road problem from a technical and operational standpoint

- 1.7 The present model for rural road management concentrates on corrective rather than preventive measures. It tries to solve emerging or urgent problems arising from the isolation of communities without any planning, programming, preparation, execution, and evaluation with defined goals and objectives. This model does not

² Article 228 of the Constitution provides that "autonomous subnational governments shall be the provincial and municipal councils, parish boards, and agencies established by law to administer indigenous and Afro-Ecuadorian territories." For the purposes of this document, subnational governments will be understood as the provincial and municipal councils.

include the network concept, and therefore fails to consider operational continuity and the concept of a useful life cycle for roads, with phases of repair, maintenance, and operation. Accordingly, it is not efficient in its investments and technical standards are not consonant with the demand for and use of the roads.

- 1.8 The model lacks a maintenance culture, with properly programmed routine periodic and emergency maintenance to preserve the investments being made on an ongoing basis. Nor do users and communities have a culture of proper use of and responsibility for roads. For example, there are no restrictions on the use of vehicles that the roads were designed to support, on access in severe weather conditions, on proper use of road runoff by the adjacent irrigation system, or on final disposal of waste in the road right of way.
- 1.9 There is also a basic constraint; the size of the road network managed by the subnational governments³ is too small for each of them (the provincial government and each of the municipal governments) alone to develop the technical scale needed to have the institutional, technical, and financial resources for proper management.
- 1.10 These weaknesses in the model have the following negative effects and impacts:
 - a. The roads are not permanently passable, which causes losses in agricultural and agroindustrial production that cannot move out of production centers.
 - b. Large segments of the rural population, generally the poor, are physically isolated during the rainy season.
 - c. The rural population feels neglected and with no incentive to stay in the countryside because it lacks permanent access to communities with public services, which contributes to migration.

Current framework for road financing. A pilot study done in six provinces and 34 municipalities shows that the average budget for roads in the 1997-2000 period was about 18% of provincial spending and 9% of municipal spending. But road management, usually designed and executed in an isolated fragmented manner, by the subnational governments, and the lack of spending on routine maintenance make the budgets insufficient to meet sector needs.

However, if an integrated management system for the province and its municipalities were established, pooling resources and rationalizing expenditures, routine maintenance would consume 40% of the current road budget when the province's whole tertiary and local road network was repaired., and the remaining 60% could be used for expansion and improvement of the network.

³ The master road plan, prepared by the MOP in 2001 and approved by ministerial agreement, establishes that the tertiary road network, associated primarily with the provincial councils, is 11,100 km, which averages 530 km per province. The local road network, managed by the municipal councils, is about 22,500 km, or an average of 110 km per municipality. These figures point up the impossibility of each of the jurisdictions independently achieving the technical scale required for proper road management.

- d. The model provides for only sporadic repair and no maintenance, which has economic implications, since maintenance costs are higher due to the lack of economies of scale in road repair and maintenance.
- e. The occasional maintenance done on the roads is limited to opening a road to traffic or clearing the wearing course, without prevention works such as cleaning of drains and ditches. Consequently, the local roads are impassable again in a few months.
- f. There is no incentive for institutional agreements among the various subnational governments that could lead to coordination and intraprovincial support for planning and execution of road network management.
- g. Expenditures for roads, which is one of the biggest items for subnational governments, are very inefficient because of the technical and organizational weaknesses, and do not result in lasting tangible benefits.

E. The rural transportation infrastructure program

- 1.11 The MOP, through its Local Roads Unit (UCV), is in the final stage of execution of an innovation loan for the *Rural Transportation Infrastructure Program* (PIRT).⁴ The main objective of the PIRT is to lay the foundation for a sustainable model for decentralized management of rural roads that can be replicated on a larger scale in the rest of the country.
- 1.12 The PIRT has involved in six provinces⁵ and, according to the evaluations conducted,⁶ its results are satisfactory:
 - a. *Participatory provincial road planning and management system.* The PIRT developed a methodology that reflects discussion of the new institutional arrangements for provincial road management based on a participatory process, with involvement of the subnational governments and the affected communities. Vital aspects of the system are discussed and consolidated, such as: the provincial road plan with the selection and prioritization of the roads to be repaired; the technical, institutional, and financial model for operation of the

⁴ Loan 1282/OC-EC. The contract is for US\$10.2 million, of which US\$9 million is being financed by the Bank and US\$1.2 million with local counterpart funding. The loan was approved in November 2000 and the agreement was signed in July 2001. The PIRT has disbursed 94.3% of the resources, and execution is expected to be completed in December 2003.

⁵ Bolívar, Chimborazo, Cotopaxi, and Tungurahua in the highlands, are among the country's poorest provinces; Imbabura is the pilot subnational government with the greatest institutional and financial capacity; Los Ríos province is reviewing the condition of coastal roads.

⁶ *Monitoring of the PIRT performance indicators.* Ayala Consulting Cia Ltda. Quito, Ecuador, June, 2003. *Social evaluation of beneficiaries and socioeconomic, cultural, environmental, and gender impact.* Fundación Consultora Prosperar. Quito, Ecuador, March 2003.

management system; and cofinancing for repair and routine maintenance of the roads repaired. The project initially did not include the participatory provincial road plans (PVPPs); they were a result of the innovative nature of the PIRT and required reorienting efforts and resources for their execution in 10 provinces,⁷ thereby laying the foundations for implementation of the program. To date there have been 308 parish workshops and 27 municipal workshops, and PVPPs are ready in Imbabura and El Oro provinces, five more will be finished this year and four early in 2004. During

Imbabura Provincial Road Management Corporation.

Local participation in road planning supported by the UCV in Imbabura province has produced a process driven by communities and parish boards, which have held 40 workshops to discuss and channel their road needs and priorities. These priorities were first established at the municipal level in six workshops,

The participatory process also enabled municipal and provincial officials to discuss and agree upon the best management and financing model to meet their needs and possibilities, the *Imbabura Provincial Road Management Corporation*. This corporation, established by provincial ordinance confirmed by the respective municipal ordinances, has legal status and operational and financial autonomy. It is headed by a governing board composed of the provincial prefect, six municipal mayors, and representatives of the transport association and the engineer's association. It has a technical secretariat. The Corporation is charged with executing the program, which is set to begin in the first half of 2004.

the various meetings held the subnational governments said they are convinced that this is the way to solve their problems in the road sector; furthermore, Imbabura province has already begun to use this methodology to plan other important sectors, such as tourism, and the UCV is coordinating workshops with the National Planning Office (ODEPLAN) to make road planning an integral part and one of the most important elements of the provincial development plans.

- b. *Cofinancing.* The PIRT had envisioned that the subnational governments would cofinance 30% of the cost of routine maintenance and that the communities would provide the equivalent of 20% of the cost of repairing trails; these goals were attained. In addition, the PIRT developed innovative mechanisms for cofinancing projects, not originally planned, which brought in additional contributions to the subnational governments that amounted to 16% of the total cost of repairing the local roads. Under the PIRT, a framework agreement between the UCV and subnational governments was developed, along with contracts for cofinancing of maintenance, legal documents for the establishment of the community road committees, cofinancing of repair for the dirt roads, etc.
- c. *Community involvement in the project cycle.* The PIRT successfully encouraged community involvement in the selection of roads to be repaired and in the establishment of 36 road maintenance microenterprises (MEMV), composed of

⁷ The six PIRT provinces plus El Oro, Napo, Pastaza, Loja, and Carchi.

residents from the area directly affected by the roads; however, there were problems in linking the local residents with the consultants and contractors. The bidding documents for the program studies and works already included the requirement that meetings be held with local residents and penalties for failure to hold them.

- d. *Local market stimulation.* The PIRT created 175 permanent jobs in the MEMV and nearly 1,140 temporary jobs during the execution of the works. However, the impact from the hiring of local consultants, supervisors, and contractors was less than anticipated, because they did not respond to the invitation that the UCV made in the national media. This situation is expected to improve as a result of the decentralized execution and plan for outreach and training of consultants and contractors under the program, in cooperation with local trade associations and universities.
- e. *Environmental and technical procedures for works and maintenance.* Under the PIRT, 432 km of local roads and 86 km of trails were repaired and maintained within the established per-kilometer costs, directly benefiting 184,000 rural residents and indirectly an additional 81,000. In addition, the following were developed: (i) procedures for technical and management training for the MEMV; (ii) methodologies to evaluate the quality of maintenance; (iii) bidding specifications for contracts for works and their monitoring; (iv) technical specifications and average costs for repair and routine maintenance by geographical area and level of use required; and (v) technical and environmental manuals for the execution of works and their maintenance.
- f. *Impact assessment.* A methodology was designed to assess impacts and establish the baseline data for eight PIRT roads and eight control roads that will help identify not only the above-mentioned technical and institutional results but also the socioeconomic, cultural, environmental, and gender benefits from improved accessibility, reducing days lost because of road closings, transportation costs and travel times, etc.

F. The Bank's country and sector strategy

- 1.13 There are four pillars in the Bank's strategy: (i) economic stabilization; (ii) poverty reduction, human capital formation and social inclusion; (iii) efficient management of the infrastructure with private sector participation; and (iv) modernization of the State and decentralization. The sector strategy identifies tertiary and local roads and decentralized management as essential elements. The program addresses key elements for both concerns by improving basic infrastructure, such as roads, as a precondition to alleviate and reduce rural poverty while creating jobs and social opportunities for residents currently without access to social, public, civic, and economic services. By supporting improvements in the decentralized management of tertiary and local roads—a major factor in the institutional and financial responsibility of subnational governments, the program will contribute to

modernization of the State, the governance of local institutions, and citizen participation in a matter that is vital for their well being.

- 1.14 The proposed program builds on the Bank's experience in the management and financing of rural roads, especially in Peru (Rural Roads Program, 901/OC-PE and Rural Roads Program, second phase, 1328/OC-PE, under way) and Ecuador (Rural Transportation Infrastructure Program, 1282/OC-EC, under way). These programs have proved highly successful in terms of physical results and the consolidation of development and institutional objectives.

G. Program strategy

- 1.15 The proposed program takes advantage of existing local capacities and taps their potential in a way that will not replace or undercut local governments but rather build on them and support them in their development. It has a strong technical base, because the roads must achieve the specific objective of ending the physical isolation of much of the rural population, caused mainly by deficient rural transportation infrastructure, but it also has a clear focus on the positive social impact it could have and will pursue them in a proactive and participatory manner.
- 1.16 To this end, the program will promote:
- a. *Repair of tertiary and local road and trails*, with low-cost technologies and appropriate standards for meeting the demand, ensuring stability and continuity of the works by introducing permanent routine maintenance activities with microenterprises organized by local residents. The low cost of the roads will facilitate broad coverage in terms of geography and population, thus giving social support to the program;
 - b. *Consolidation of road management* in institutes established by the subnational governments (IGVPs) in a given province, thus putting them on a technical and operational scale that will permit them to become operationally efficient;
 - c. *Development of participatory planning and programming systems*, with clear technical, economic, environmental, and social criteria for eligibility and prioritization of the works, giving special attention to the neediest;
 - d. *Application of participatory, transparent methodologies* by the program institutions and local authorities throughout the project cycle, with an emphasis on transparency, accountability to the public, and citizen oversight of management;
 - e. *Rationalization of subnational governments public spending* on roads through the incentive of the program resources so that they can be planned with a medium-term perspective;

- f. *Involvement of the population*, communities, parish boards and local governments in the monitoring and oversight of roads, which is indispensable if the roads are to last their useful life through careful use, because the repair standard—which is low but of a quality consistent with the level and characteristics of the demand—requires a community commitment in order to achieve the best results; and
- g. *Strengthening of local capability*, including training for the subnational governments through the IGVP so that they fully assume responsibility for road management, training the community so that it can participate in the microenterprises, and promoting and developing the market for small contractors and local consultants.

H. Coordination with other institutions and multilateral credit agencies

- 1.17 The program's characteristics call for broad participation and institutional coordination on three levels: local, national, and international. At the international level, the participation in financing of the program by the IBRD, with which it is being prepared jointly and simultaneously, will enable the program to achieve economies of scale and have financing commensurate with its objectives and scope, thus covering practically the whole country, improving the infrastructure available to the most deprived and neediest communities, with application of a uniform policy for technical, institutional, and financial assistance from the central government to the subnational governments for local roads, thus ensuring attainment of the expected results.
- 1.18 On the national level the program has closely coordinated with other public sector institutions and representatives of the subnational governments (paragraph 3.9). At the local level, the program includes special procedures to ensure participation of citizens and representative organizations, especially indigenous and Afro-Ecuadorian communities (paragraph 4.18).
- 1.19 The principal multilateral donor in transportation sector financing is the Andean Development Corporation (ADC), which has made significant loans for roads at the level of the MOP. The program is in constant contact with this agency, coordinating actions; a new loan to the MOP for repair, construction, and maintenance of the primary and feeder networks would complement the one proposed here.
- 1.20 There will also be formal institutional cooperation between the program and the Public Finance Management Project (IBRD-7110-EC), funded by the IBRD, in order to implement and use the financial management system in the IGVP. The system will tighten control of the program's accounting and financial transactions at the provincial level and overall in the UCV.
- 1.21 The program will continue to exchange information compiled during the execution of the PIRT between the International Labor Organization (ILO) and the MOP,

especially as regards the conceptual design and evaluation of routine maintenance microenterprises.

- 1.22 The Bank has substantial experience in other areas. A relevant case is the coordination between external agencies on the social inclusion of both indigenous groups and Afro-Ecuadorians as participants in the programming and beneficiaries of the projects financed with external loans.

II. THE PROGRAM

A. Objective

- 2.1 The main objective of the program is to improve the poor rural population's access to social services, markets, and other income-generating activities, thus improving their quality of life and supporting the fight against poverty.
- 2.2 Its specific objectives are to: (i) improve road infrastructure and rural transportation services, ending the physical isolation of much of the country's rural population; (ii) develop efficient and sustainable systems for decentralized management of rural transportation, while strengthening the institutional, technical, and operational capability of the provincial and municipal councils; (iii) improve the quality of spending on local roads, which is considered sufficient to maintain the network; (iv) encourage public participation throughout the project cycle; and (v) support development of the local market for small road contractors and consultants.

B. Description

- 2.3 To achieve these objectives, the program will build on the foundation laid by the PIRT, deepening a sustainable model of decentralized management of rural roads.

Through the subnational governments it will repair close to 3,050 km (8%) of the local and tertiary network under their control, applying technical standards of low cost but good quality, tailored to the level and nature of demand, in order to expand geographical coverage of the population served, guaranteeing the stability of the roads by immediately incorporating them into a routine maintenance system operated by microenterprises organized by local residents, an arrangement that proved to be very efficient for ensuring the useful life of the roads. The program will also repair about 500 km of trails for nonmotorized traffic (paths or pack trails known as *chaquiñanes*), thus connecting smaller villages that are now extremely isolated.

Pack trails. *Chaquiñanes* trails for pedestrians and pack animals that connect isolated communities with larger population centers or roads with vehicular traffic. The program will widen and improve them to a width of no more than 1.5 meters to permit safe travel. These trails, which cost about US\$2,000/km and are maintained by the user communities, will be repaired with the program paying for design and supervision of the works, materials, equipment, and skilled labor, while the community will supply the unskilled labor for up to 30% of the total cost.

The works will be done through direct hiring of a Community Road Committee (CVC), composed of the communities that will benefit from the works, headed by the same NGO that does the technical studies. This system has proved highly effective for rapidly finishing projects without cost overruns while organizing the unpaid labor called for in the program. Given the size of the works, these direct contracts will not exceed US\$50,000 and are for one time only.

- 2.4 The program will promote organization and coordination of the subnational governments in a given province by establishing provincial road management institutes (IGVP), with a high degree of technical, financial, operational, and

- administrative autonomy, in order to make the operation more professional and improve the quality of subnational governments road expenditures. The program will encourage the development, consolidation, and strengthening of these IGVP, training them and monitoring their performance in their province. The division of responsibilities between these institutions will be clearly defined to avoid duplication and ambiguities; the UCV will be responsible for providing technical, institutional, and financial assistance, and for monitoring the IGVP and ensuring that they comply with the program requirements. The IGVP will be responsible for contracting for works, their design and supervision, and their maintenance.
- 2.5 The program will encourage broad-based participation by the community at all stages, especially during the selection and prioritization of local community needs, using a highly participatory planning system, established with the PIRT (paragraph 1.12) and improved and expanded during the preparation for this operation. The program will extend it to virtually the whole territory. These mechanisms for citizen participation, in addition to public planning of the activities, will commit the authorities to carrying out road projects that citizens deem most essential for their social and economic development, giving stability and predictability to government activities, rationalizing road expenditure, bringing transparency to a sector with great budgetary and economic weight, and supporting decentralization and the governance of the subnational governments.
- 2.6 The program will actively promote transparency in its operations and those of its executing agency (UCV) and coexecuting agencies (IGVP), with introduction of a public and periodic system for accountability to the community. As part of it, the program will have clearly established procedures in its Operations Manual (OM)⁸ and a comprehensive system for monitoring oversight, and evaluation of its actions and results by the UCV with regard to the IGVP, and by the technical, operational, and financial external auditors.
- 2.7 A related objective is development of the local market at the level of the subnational governments for consultants (engineering studies, works supervisors, etc.) and small contractors for the works, so that the subnational governments, which currently manage most of the works, will have valid alternatives for contracting out the road projects. For this purpose the program will support training for local consultants and contractors through professional associations of engineers and architects and local universities.
- 2.8 The program will be open for participation by any subnational governments that voluntarily accept its conditions. The main conditions are a certain level of institutional organization and the financial commitment that the subnational

⁸ The UCV has the OM of the PIRT. It is being updated and expanded to include the new mode of execution of the PCV and the relationship with the IGVP. The new manual is already in a draft version that has been reviewed by the project team. The final manual, approved and in force with the Bank's nonobjection, will be a condition precedent for the first disbursement.

governments in the same province must make in order to participate in the program. These basic conditions for inclusion, which are part of the framework agreement, are:

- a. *Willingness of the subnational governments to organize by sectors*, exercising part or all of their jurisdiction for provincial roads through the IGVP. The subnational governments will establish the IGVP and their legal, structural, technical, financial, and budgetary characteristics in accordance with the political reality in each province, under terms of acceptance previously established by the UCV in an agreement;⁹
- b. *having a multi-year PVPP* that identifies the road needs and prioritizes them in accordance with decisions made in public workshops where communities, parish boards, and local officials are consulted;
- c. *financial commitment* to defray the expenses of the IGVP and to make the local counterpart contributions for the program for the activities carried out by the IGVP;
- d. *acceptance of the program procedures*, including principally the establishment of accounts for management of the IGVP resources, with automatic transfers to them from the subnational governments (paragraph 3.7);
- e. *acceptance of the program regulations* and technical, environmental, and social standards in order to attain the broad geographical and social coverage desired;
- f. *road maintenance*, including roads repaired in a routine maintenance program operated by microenterprises organized with residents the area of influence of the road;
- g. *shared financing of the program* by the subnational governments, including the local counterpart contribution and an increasing share of the cost of routine maintenance; and
- h. *access to publicity for and dissemination of* the program activities and promotion of social oversight by the community and the IGVP of the activities.

2.9 Most of these concepts are set forth in a document¹⁰ prepared by the UCV and approved by the Strategic Coordination Committee (paragraph 3.9). This document

⁹ A framework agreement developed in the PIRT (paragraph 1.12) is being improved to include the new powers of the subnational governments established by the Local Roads Unit (PCV). Partial agreements in force show the willingness of the subnational governments to participate in the program. The agreement signed with a given province will be a condition precedent for transferring resources to it.

¹⁰ Local Roads Program. Conceptual Document (DC/PCV). Local Roads Unit, Ministry of Public Works. August 2003.

sets out the program's conceptual foundation, as interpreted by the Government of Ecuador, which is consistent with the Bank's vision and consolidates the governmental position in its discussion with the subnational governments.

C. Institutional organization for road management

- 2.10 The greatest challenge for the Program is undoubtedly the institutional organization the subnational governments need to participate in the program. The subnational governments have the authority, although shared with each other, for independent action on the rural road network. The inefficiency of this approach is due to institutional weakness, the small size of the network under their supervision, which means that acting alone they cannot achieve a technically efficient scale of operation, and a lack of resources. The program therefore proposes a new organization to combine the efforts and capabilities of one and all. This seemingly difficult objective is being pursued in Imbabura and El Oro provinces, which have organized to become the provinces in the representative sample, while the UCV is working with resources from the PIRT in nine other provinces that have expressed interest and will be ready when the program is launched.
- 2.11 There is much evidence that institutional coordination is possible. The participating provinces are moving in the direction of institutional coordination and internal reorganization: agreements have been signed for participatory road planning in 11 provinces, the Imbabura Road Corporation has been established, the partial financing provided for the engineering studies for roads in the representative sample by the provincial governments of Imbabura and El Oro, a financial contribution made by Loja to the PVPP, and a commitment made by all its municipalities to establish the IGVP.
- 2.12 The program's flexibility, in not imposing rigid schemes for organization and participation, allowing each political jurisdiction to establish its own criteria (provided they are compatible with the program's principles and gradually incorporating all the stakeholders with a minimum compatible with the scale of intervention), minimizes any resistance that might be encountered by a new operational and organizational pattern with which they are unfamiliar.¹¹ Although the program allows for flexibility in organization, the IGVP must be established according to well-defined requirements:
- a. *Political consensus*: the IGVP must be determined freely and openly in consultation with the public, not forcing all local governments to participate but encouraging and persuading them to accept the viability of the model.

¹¹ Although ideally all the subnational governments would decide to adopt the basic structure of the IGVP, this may not happen due to organizational, technical, financial, geographical, political, or other problems. The program will therefore be flexible to permit new legal, institutional, and organizational alternatives, such as the IGVP without the participation of the provincial government, the IGVP with participation of fewer than all the municipalities, transfer of responsibilities from the municipalities to the provinces, etc.

- b. *Legal status:* the IGVP must be freely adopted by the subnational governments and accepted by the public, with full legal status and the authority to enter into contracts and make payments, subject to financial and operational audits and accountability to the subnational governments that comprise them, to the UCV, and to the community, all within the legal framework currently governing responsibilities for road management.
 - c. *Institutional organization:* the IGVP must operate in cooperation with the Committee for Provincial Development or the corresponding agency, with participation of the subnational governments through the governing board of the IGVP, in the definition and approval of the multiyear investment plan (PPI) and the annual operating program (AOP) and in monitoring, oversight and evaluation of their implementation, linked technically, administratively, and financially with the UCV.
 - d. *Administration and finance:* the IGVP must have the capacity to operate the SIGEF; apply bidding and contracting procedures of the banks and national legislation; submit financial reports to the subnational governments and the UCV; receive resources from the subnational governments, the MOP, and other sources; and have a dedicated budget with a breakdown of the program resources.
 - e. *Technical capacity:* the IGVP must have the capacity to propose and execute the PPI, AOP, and the respective updates; to contract with third parties and supervise studies, works, and routine, periodic, and emergency maintenance; to comply with the environmental and social technical requirements of the program as established in the OM; to establish, strengthen, and supervise the MEMV; to disseminate information to the beneficiaries (subnational governments and communities); and to encourage social and community participation, including indigenous and Afro-Ecuadorians groups, with gender perspective.
 - f. *Organization:* the IGVP must have a streamlined, efficient organization, with human and material resources suited to the program's implementation in accordance with its operations manual.
 - g. *Operations:* the IGVP must ensure the proper use of the roads by users and the target community, involving them in oversight of the roads.
- 2.13 The basic structure of the IGVP will be: (i) a governing board with decision-making authority, whose members will include the provincial prefect, who will chair it, the mayors of the participating municipalities (each province will decide whether or not to include others, such as representatives of parish boards or the private sector); (ii) a technical secretariat, with operational functions, highly qualified, preferably chosen through competitive selection, composed of a small technical team highly qualified in the technical, social, environmental, and economic aspects of road planning, budgeting, and contract administration. The IGVP will not act on its own,

because only the program can authorize contracting for works with third parties, and it will not have the authority to execute works on force account. The IGVP will have its own budget, act with the greatest transparency, and be accountable to its supervisors, the local authorities, the UCV and the community.

D. Geographic distribution and scheduling of resources by province

- 2.14 To facilitate equitable distribution of resources among the provinces and at the same time ensure its predictability, thereby reducing political pressure on the program, the Ecuadorian government established criteria for geographic distribution and scheduling of resources¹² that specify the amount each province could technically expect to receive. The geographical distribution was based on the following indicators:
- a. *Rural population*: measured according to the number recorded in the official national statistics (population census of the National Statistics and Census Institute, INEC, 2001). This indicator has a weight of 30%.
 - b. *Rural poverty gap*: the number of poor as a percentage of the rural population. The poor are defined as those persons who belong to households whose per capita consumption is below the extreme poverty line. This indicator has a weight of 40%.
 - c. *Length of the local road network*: reflects the rural road demand generated over time. Includes the tertiary and local network targeted by the program. This indicator has a weight of 20%.
 - d. *Amount of government transfers*: reflects the per capita contribution by the Ecuadorian government to each province. This is an inversely proportional indicator and has a weight of 10%.
- 2.15 The application of these criteria results in a distribution of program resources that ranges from a maximum of US\$35/person in Carchi province to a minimum of US\$19/person in Los Ríos. As noted, Guayas, Pichincha, and Galápagos provinces are excluded from this distribution.
- 2.16 As for the schedule, given the limitations in the availability of resources, development of local capabilities, and rate of signing on to the program, as well as the institutional limitations of the UCV (inability to launch simultaneous activities throughout the country), a timetable for entry into the program had to be devised, assigning priority to those provinces with greatest needs or those that are already in the PIRT, have expectations for continuing in the program, and are best equipped for its early implementation.

¹² The payments total approximately US\$72 million for the provinces to carry out the plans, works, and supervision of repair, and routine maintenance (paragraph 2.43).

- 2.17 Both the geographical distributions and the schedule, approved by the Committee for Strategic Coordination (CCE) and made public, will become an obligatory guide for the UCV, protecting it from political pressure and giving the subnational governments certainty about what resources they can expect. Although some subnational governments signed up for the program earlier, they will all have an active part in it from the outset, because planning in all of them is set to begin no later than the second half of 2004. However, this time lag makes it necessary to divide the provinces into two groups, with the first composed of the 11 provinces that have begun the participatory planning process and the institutional agreements, and the second with the remaining eight provinces (paragraph 2.22). Different criteria for distribution will apply to these two groups.

E. Access to program resources

- 2.18 The program seeks to have the subnational governments gradually make a permanent change in the road management model they currently use. To achieve this goal, it is essential to stipulate increasing use of the proposed model by the subnational governments in execution of the program works as well as to entrust the IGVPs with other road activities. In order for this to occur, the IGVP must demonstrate through their performance that they are an alternative that can address current constraints and inadequacies.
- 2.19 To this end, the program is designed to provide an incentive for use of the new road management model, applying two basic criteria (paragraph 2.14) for the distribution of resources previously allocated to each province to the IGVP (paragraph 2.22).
- a. *Participation in the program:* on an indicative basis, this criterion assigns at least 60% of the program's investment resources to IGVP that meet the minimum entry requirements (paragraph 2.8); and
 - b. *Sustainability:* Up to 40% of the program's investment resources will be allocated as an incentive once the IGVPs meet the following conditions: (i) a greater financial contribution by the subnational governments, increasing the resources transferred from the program if the subnational governments increase the ratio of own funds/transferred funds; and (ii) proper IGVP performance¹³ in the technical, environmental, and social areas and as regards costs, procedures, attainment of fiscal goals, timeliness and quality of the maintenance system—in short, the quality of the road system.
- 2.20 Resources for the sustainability criteria will be put in a competitive “pool” available to all; however, each year the IGVPs may only have access to an amount of the resources available to it based on the geographical distribution. The project team

¹³ As certified by the UCV, the external technical and financial audits, and Bank oversight of the program.

will closely monitor the recipient and use of these resources so that in the mid-term evaluation it can recommend any necessary changes in this procedure.

- 2.21 There are several stages¹⁴ in the cycle for a province's incorporation into the program. The provinces in Group 2, which will not begin the process until 2004 and 2005, would receive investment resources for works starting in the second half of 2005 or early in 2006, which would delay their learning and assimilating the program concepts and procedures, thus compromising their ability to comply with the performance criteria. This makes it necessary to offer greater flexibility in access to resources based on the sustainability criteria, allocating them wholly on the basis of a larger counterpart contribution.
- 2.22 The following table summarizes the criteria for distribution of resources and counterpart requirements for access to them (with indicative dates).

¹⁴ These include (i) development of the road planning process (six months); (ii) legal establishment of the IGVP and its financial management mechanisms (two months); (iii) setting up and strengthening of the IGVP (six months); (iv) contracting and execution of technical studies on the roads to be repaired (six months); (v) contracting for the works (six months); (vi) execution of the works (six months); and (vii) startup of maintenance activities.

Provinces		Entry in the program semester/year	Allocation of resources (%)		Conditions for access to the resources	PCV: GS ratio	
			Total	Distribution plan			
Group 1	Imbabura	II/2003	100	60		Meeting entry requirements	PCV 4:1
	El Oro	II/2003		40	20	Greater GS counterpart contribution	1:1
	Loja	III/2003					
	Bolívar	III/2003					
	Chimborazo	III/2003					
	Cotopaxi	III/2003					
	Carchi	III/2003					
	Napo	II/2004					
	Tungurahua	II/2004					
	Los Ríos	II/2004					
	Pastaza	II/2004					
Group 2	Cañar	I/2005	100	80		Meeting PCV entry requirements	4:1
	Manabí	I/2005		20	Greater GS counterpart contribution	1:1	
	Orellana	I/2005					
	Azuay	I/2005					
	Esmeraldas	II/2005					
	Morona, Santiago	II/2005					
	Sucumbíos	II/2005					
	Zamora, Chinchipe						

F. Counterpart contribution

2.23 As noted, each executing agency and coexecuting agency will be responsible for making the corresponding counterpart contribution to the activities entrusted to it.¹⁵ For the road repair, periodic and routine maintenance, technical studies, and supervision of works contracted by the subnational governments through their IGVP, the subnational governments will provide the counterpart funding in a 1:4 ratio with the program resources. In those components entrusted to the UCV (institutional strengthening and supervision of the operation), the central government will be responsible for the counterpart. This contribution, to which project administration costs must be added, can easily be covered by the MOP budget, so no problems are anticipated during execution.

2.24 The bulk of the counterpart contribution of about US\$33 million will be the responsibility of the subnational governments. This amount, though significant, will be split among the number of participating provincial councils (19) and municipalities (178), and spread over the program execution period and is therefore

¹⁵ Although the subnational governments will be responsible for the local counterpart contribution for their activities, the Government of Ecuador will still have the contractual obligation for these contributions.

compatible with available budgetary resources. The average annual contribution of each province is expected to be less than US\$300,000, while the municipalities' contribution will be about one-tenth of that figure.

- 2.25 The counterpart breakdown within a given province has important implications. Several variables enter into play when deciding how to divide these contributions among the various organizations involved in the IGVP that are responsible for its funding and its works. Although this decision is up to the subnational governments, the program has developed guidelines for analysis and discussion, with a view to reaching fair agreements for all participants, in order to achieve stable and

Counterpart breakdown within a province. Since the investment has been predetermined, counterpart contributions are set in advance. But the breakdown of these contributions between province and municipality is the exclusive responsibility of the participating subnational governments. Some of the questions that must be answered are: How much must I put in for my road and how much help can I get from the province? Why do I have to contribute this percentage of the cost when the province is helping another municipality with a larger share? Why do I have to pay toward this road, which although in my jurisdiction actually benefits another municipality? Do I need to contribute today to reduce the financial cost of future investment? Why should I contribute to the program when the road is not in my municipality? The road is necessary, but it costs more than the municipality can afford in its annual budget. How can I meet this economic challenge?

To help them with this difficult decision, which must be made in order to have the necessary instruments to receive funds from the program, the UCV has developed some guidelines: (i) strictly proportional contributions for the length of a road in a given municipality, with the province providing supplementary financing; (ii) "road insurance," with all paying a percentage of their revenue needed to cover the counterpart, regardless of expected benefit; and (iii) variable percentages, with a maximum amount per municipality

lasting results. There are two basic principles. The first is that the provincial contribution is supplementary, reducing the financial burden with a "subsidy" to mayors with insufficient resources to execute the work. The second principle is that all the subnational governments support the operation of the IGVP regardless of its level of activity in a given municipality. The UCV is working with the subnational governments to develop financial agreements that will make it possible to implement the local counterpart contribution mechanisms. These agreements must be in place before program disbursements begin in a given province.

G. Participatory planning system

- 2.26 The PIRT demonstrated that to win support for the program it is essential to instill a sense of ownership of and empowerment over the roads. This feeling was very pronounced and appeared early in the implementation of the PIRT, leading it to incorporate the system of participatory planning that has been adopted by the proposed program. In turn, this planning process evolved as UCV gained experience in several provinces. The *participatory provincial road plan* (PVPP) involves a series of actions and methodologies to generate social and political support, including:
- a. *Local workshops*: the PVPP will begin with workshops at the level of each of the parish boards (JP) in a given province, with broad-based participation by the communities and organizations of campesinos, indigenous groups, and Afro-

Ecuadorians, to explain the program's scope, identify needs, and set initial priorities for roads.

- b. *Municipal workshops*: results of the parish workshops will be compiled in workshops in each municipality, with participation of local officials (mayor, JPs chairs) and representatives of the civil society and the private sector. Needs of the municipality will be consolidated and ranked.
 - c. *Restrictions and eligibility criteria*: in the municipal workshops the UCV will present criteria for eligibility of the roads, including: economic criteria (rate of return, productive potential of the area of influence), functional criteria (road use and beneficiaries), environmental restrictions (such as whether the roads cross protected areas, national parks, high-risk areas, etc.), social criteria (Indian reservations or communities, Afro-Ecuadorian communities, number of residents served, presence of health and education facilities, etc.), technical criteria (acceptable standards for road repair), and related costs. A project meeting all the criteria will be eligible for financing.
 - d. *Technical support*: for the municipal workshops the UCV will have a geographical information system with secondary information from the road inventory and social and environmental topics. This information will be updated and supplemented in the workshops. In addition, with secondary information, the UCV will do a preliminary economic evaluation of the main roads (applying the Roads Economic Decision model (RED) developed by the IBRD).
 - e. *Provincial workshop*: the results of the municipal workshops will be consolidated in a provincial workshop. All provincial officials (prefect, mayors, and parish board chairs) will participate, reconciling the PVPP with the regional development plan. They will establish the priority of the projects to be financed by the program and the timing of the works. The PVPP will be disseminated and public commitment to it will be obtained.
 - f. *Institution-building and cofinancing*: the provincial workshops will discuss and define the basic characteristics of the IGVP and methods of cofinancing, and political commitments will be signed for their startup.
- 2.27 Participatory planning thus has many facets: the commitment of the community and its authorities, the joining forces of authorities to face the challenge, analysis of the institutional and financial viability of the proposed IGVP, establishing the guidelines for technical work in the provincial road sector, periodic review of priorities, and submission of accountability.

H. Technical standards for road repair and costs

- 2.28 The program will work with simple but rigorous technical standards for repair, adapted to the geographic characteristics where the roads are located, the nature and level of demand, availability of resources, and compatibility with safe operation and

- year-round passability, with some restrictions (e.g., no heavy vehicles during the rains). Repairs will respect the grid of the roads, avoiding changes in alignment and widening (although it will standardize widths and address critical points related to road safety).
- 2.29 Regardless of the volume of the demand, the roads will share the following characteristics: improvement of the drainage system (culverts and ditches) and bridges (all of them small, generally made of wood and local materials), improvement of the wearing course (usually surfaced but never with asphalt) and stabilization of slopes, to achieve the structural stability of the roads.
- 2.30 When the road carries more than 70 vehicles per day, the roadway width may be up to 7.2 meters, provided that does not exceed the width of the current roadway, since the program will not authorize widening except in short stretches where it is justified or needed for road safety reasons; the wearing course surfacing may be up to 20 cm, at an estimated cost of about US\$25,000/km. Roads with less traffic will be repaired to between four and five meters wide, depending on the width of the existing roadway, and the wearing course surfacing may be up to 15 cm, at a cost of US\$15,000/km. Trails no wider than 1.5 meters will receive an investment of about US\$2,000/km.
- 2.31 If a lightly traveled road does not meet the established requirements for profitability or cost/efficiency, the program may repair it with lower technical specifications, improving critical points that impede year-round passability and stabilizing the road structure to keep it within the previously established costs and responding to the needs of the population (paragraph 4.5).

I. Road maintenance and sustainability

- 2.32 As noted, one of the main weaknesses of the current road management system is the lack of all forms of maintenance: routine, periodic, and emergency. The program will address this problem decisively, because one of its basic pillars is to promote road maintenance, starting immediately after a road is repaired.
- 2.33 The most important of these activities is routine maintenance, indispensable for the road to last its useful life and give stability to the program works, which would otherwise not achieve their useful life. Maintenance has proved effective for achieving these results in the experience of the PIRT and other countries. Accordingly, the program will make a great effort to continue and expand upon this methodology.
- 2.34 Maintenance will be contracted to road maintenance microenterprises (MEMV) established by local residents who generally live along the road. The microentrepreneurs will receive assistance to establish their company, training, and technical and managerial assistance for at least six months. The program will

cofinance routine maintenance on a declining scale¹⁶ until at the end of the program execution period, when the subnational governments will be totally responsible for their financing.

2.35 Sustainability of maintenance, especially routine maintenance, will be ensured by the following factors:

- a. *Overall system design*: includes prioritization of routine maintenance and development of MEMV, based on the sociocultural characteristics of the population residing along the road.
- b. *Community participation in MEMV makeup*: includes early and ample dissemination of the role of the MEMV so that the population understands their potential and limitations and consciously decides to take part in one of them. Social acceptance of the MEMV concept is essential if the work of its members is to be supported later by the community.
- c. *Legal format of the MEMV* will be such that it will have good technical results but it will also be a vehicle for the socioeconomic development of its members and the community to which they belong.
- d. *Training of microentrepreneurs*: technical and management training, will include initial instruction and monitoring by monitors for at least six months after startup of their activities. The UCV will also provide technical and management manuals.
- e. *Monitors* will carry out the basic system for training, assistance, and monitoring of the MEMV for at least six months and will consist of technical and business monitors, recent university graduates in engineering, business administration, and economics, respectively. The monitors are essential if the MEMV are to develop their technical and managerial capabilities. The monitors will be the responsibility of the UCV (they were part of the PIRT), but application will be the responsibility of the IGVP.

Microenterprises and the business initiative. At the community level the MEMV will generate capacity for savings. This, in turn, will make it possible to undertake productive projects that were formerly unaffordable. The MEMV of the PIRT demonstrate this capacity for initiative for such projects as: (i) purchase of poultry and starting a minifarm; (ii) renting a vacant community store to sell cheaper merchandise because of improved access; (iii) use of the savings fund as a community bank; and (iv) additional contracts for road maintenance with the municipal government.

There are also personal initiatives, such as marketing of farm products or raising small animals.

¹⁶ The program will finance routine maintenance through MEMV, immediately after repair of a road, as follows: (i) in the first year, 70% of the contract amount; (ii) in the second year, 30% of the contract amount; and (iii) beginning in the third year, the IGVP will fully cover the contract amount. These financial responsibilities will be stipulated in the framework agreement, the participation agreement and the OM. The necessary exception to Bank policies is requested for partial declining financing of routine maintenance.

- f. *Monitoring and supervision of the MEMV and its work* will be conducted by the monitors, but also by local authorities and the social oversight exercised by the community;
 - g. *Periodic performance evaluation* will be conducted through inspection visits, surveys of users and beneficiaries, and special studies. These tasks will make it possible to evaluate the quality of the results, link results to the structural methodology (legal format of the MEMV), the methodology for organization of the work, etc.
 - h. *Road use*: the low-traffic roads have their regular users. They must be encouraged to adhere to proper use of the road, avoiding practices that can shorten its useful life, such as travel during periods of heavy rains, or with overloaded vehicles. The community must also exercise social oversight, avoiding road damage to enter their property and not using road ditches as irrigation canals.
 - i. *Performance based payment of the MEMV* will be stipulated in overall contracts that clearly set forth the technical conditions that must be met by the road and the penalties applicable in the case of noncompliance. The monitors will be responsible for evaluating the results of the MEMV activities, which the municipalities must approve prior to monthly payment.
 - j. *Increasing financing by the subnational governments* will ultimately demonstrate acceptance of the management model. Partial initial financing by the program will help ensure acceptance of its principles and allow time for the model to demonstrate its merits.
- 2.36 The legal, technical, and social framework for the establishment of the MEMV, already in operation, will be provided by the UCV. The IGVP will be responsible for carrying it out with technical and institutional assistance from the UCV. Similar work must be done to prepare the team of technical and management monitors needed to monitor and oversee MEMV activities. The UCV also has methods, manuals, and systems to train the IGVP and the subnational governments in evaluation of the results of the maintenance work and implement a system for monitoring and comparison that will determine yield, work and organizational methods, costs, quality, etc., to draw lessons learned and disseminate them.

J. Components

1. Repair and maintenance (US\$62.2 million)

- 2.37 This component covers sustainable activities on the local road network, guaranteeing the expected benefits and achieving a useful life of four to six years for the roads repaired. It includes:

- a. *Repair and upgrading of 2,520 km of local roads* (US\$42.3 million). The roads to be repaired are existing local roads that link small villages to connecting roads or larger towns, to facilitate access to consumer and service centers. They are unpaved roads between four and five meters wide, and there will be no changes in alignment or construction of new roads. The proposed repair works are technically simple and low-cost, with repair standards that guarantee year-round passability. Repair will include patching, surfacing the wearing course with gravel or stone, removal of landslides, small works for stabilization and retention of slopes, and improvement of the drainage system and erosion control.
- b. *Repair and upgrading of 530 km of tertiary roads* (US\$14.8 million). The program works will be on existing roads in the tertiary road network in 19 provinces where necessary to connect the local road network. The works are technically simple and low-cost, aimed at restoring accessibility, making them serviceable and passable. No paving, changes in alignment, or widening will be carried out on these roads, which are five to six meters wide.
- c. *Routine maintenance of repaired roads* (US\$4.1 million). Routine maintenance will be financed mainly with local counterpart resources, and on a declining scale with program resources through the MEMV.
- d. *Upgrading of trails* (US\$1 million). The program will finance 70% of the cost of improving 500 km of trails (materials, equipment, and skilled labor), while the remaining 30% will be supplied by the beneficiary communities in the form of unpaid labor. These trails connect small settlements to the local road network and are used for foot traffic and pack animals. The works will be done by a Local Road Committee (CVC), a community organization of road users with legal status, assisted by a nongovernmental organization (NGO) that will help it with internal organization, technical work, supervision of the works, and road maintenance. The technical and socioeconomic studies for repair of the trails and supervision and training of the CVC will be the responsibility of the NGO active in the area, to be hired by the program for these activities.

2. Institutional strengthening (US\$6.9 million)

2.38 Since the program seeks to establish and support multiple coexecuting agencies, this component is a critical element in the implementation strategy. It includes:

- a. *support for the IGVP*, including their establishment and monitoring of their work in terms of legal aspects, planning, institutional, technical, administrative, and logistical aspects, personnel management, finances, monitoring, etc.;
- b. *technical assistance for the UCV*, which will include training in its new duties and the various matters for which it is responsible;
- c. *establishment of the MEMV*, covering approximately 205 of them, their supervision and consolidation, monitoring and evaluation of their activities (both

technical and managerial), the corporate and organizational forms they take, their links to the community, etc., and including the system of technical and managerial monitors, essential for developing the needed capacity to carry out their work;

- d. *technical and environmental standards for road management* and their development, approval, and application, including technical and environmental manuals and training in their use for the UCV and the IGVP;
- e. *participatory road planning*, the implementation and supervision of the work, introduction of new methods, coordination with other national planning offices (ODEPLAN) and regional agencies (development corporation) and their link with annual investment and maintenance plans;
- f. *local market for small contractors and consultants* and its development through the promotion of works suited to the capability of the market, and especially the training and organization of the existing contractors and consultants, minimizing the risk of noncompliance with contracts through close monitoring;
- g. *supervision, monitoring, and review* of the work of the IGVP and the UCV and the program impact and results in accordance with the provisions of the logical framework, and external technical and environmental audits;
- h. *training of the IGVP* in various aspects involved in the planning and the technical, environmental, social, and financial management of the road network, its periodic and emergency maintenance, procedures and contract administration, community relations, etc.; and
- i. *procurement of computers, software, and office equipment* for the IGVP and UCV, so they all have the necessary equipment to operate the various information and monitoring systems required for the program. Up to three vehicles will be procured for the UCV to support the supervisory work.

3. Engineering and supervision (US\$10.1 million)

2.39 This item includes the following studies and activities:

- a. *technical and environmental studies* (US\$5.2 million), covering economic and environmental feasibility, and final engineering design studies for about 2,900 km of roads needed to contract for the program's works, in addition to those included in the representative sample;
- b. *technical, socioeconomic, and environmental studies* (US\$400,000) for the repair of 500 km of trails as well as supervision and training of the CVC; and
- c. *supervision of works* (US\$4.6 million), including repair of local and tertiary roads.

4. Program administration (US\$8.3 million)

- 2.40 This item includes the expenditures of both the UCV and the IGVP participating in the program.

K. Cost and financing

- 2.41 The program will be financed by a multiyear investment loan, appropriate for the type of works to be done, which will be selected gradually during the program execution period, as the coexecuting agencies, the subnational governments, join the program. The size is adequate to achieve national geographical and operational coverage without putting too much strain on the financial capacity of the subnational governments, which are responsible for the local counterpart, and is compatible with the Ecuadorian government's capacity for indebtedness and allocation of external resources without jeopardizing other projects.
- 2.42 The program's cost will be US\$93 million, broken down as follows: (i) Bank financing, US\$30 million; (ii) cofinancing by the IBRD, US\$30 million; and (iii) local counterpart contribution of US\$33 million. The counterpart for the repair and maintenance works and the related studies (engineering design and supervision) is the complete responsibility of the subnational governments, while the MOP, through its UCV, will cover the counterpart for the institutional strengthening of the component and the UCV's administration costs. The execution period for the program will be four and a half years. The above amounts include the 12% value added tax (VAT).
- 2.43 A simplified table of costs and financing (full table is attached as Annex 3) is presented below (figures in thousands of US\$):

Component	IDB	IBRD	Sub-national governments	Govt. of Ecuador	Total
Repair	21,771	21,771	18,664		62,206
Local roads	15,241	15,241	11,854		42,336
Tertiary roads	5,342	5,342	4,155		14,840
Non motorized veh. roads	353	353	274		980
Routine maintenance	835	835	2,380		4,050
Engineering and supervision	3,644	3,644	2,834		10,121
Institutional strengthening	2,495	2,495		1,940	6,930
Program administration			3,276	5,000	8,276
Financial audit	200	200		48	448
Contingencies and price escalation	1,890	1,590	992	247	4,719
Financing costs		300			300
Total	30,000	30,000	25,766	7,236	93,000
<i>Percentage</i>	32	32	28	8	100

L. Use of loan resources

- 2.44 As noted above, no problems are anticipated with the counterpart funding because the MOP contribution, about US\$7.2 million, mostly for the program's administrative expenses, is within the range of funds currently handled by the UCV. However, there is a risk of problems with the use of the loan proceeds and ensuring that within the MOP they be used for the intended purpose. The Ecuadorian government has assigned high priority to the program, and the MEF agrees on the proposed timeline for disbursements, which is compatible with the macroeconomic goals and the MOP's budget.
- 2.45 Nevertheless, the new financing proposed from the ADC, together with the current financing, could affect the rate of absorption of the disbursements. The program therefore takes these constraints into account and reflects them in the design of its execution schedule.

III. PROGRAM EXECUTION

A. Borrower and executing agency

- 3.1 The borrower will be the Republic of Ecuador. The executing agency will be the Ministry of Public Works and Communications, through its support unit, the Local Roads Unit. The program's coexecuting agencies will be the provincial road management institutes (IGVP) as subnational government agencies, established to manage their local road networks.

B. Execution and administration of the project

- 3.2 Responsibilities' program execution will be clearly divided among the UCV, the IGVP, and the subnational governments. All the physical works and related activities (repair and maintenance of local and tertiary roads, repair of trails, routine maintenance, technical studies and supervision of works) will be the exclusive responsibility of the IGVP, which will carry them out according to the program regulations, established in the Operating Manual (OM), which must be in force as a condition precedent to the first disbursement.
- 3.3 To participate, the subnational governments must sign a framework agreement with the MOP that establishes the commitments of the provincial governments and the respective municipalities to join in the program (paragraph 2.8), including the obligation to form the IGVP using structural, legal, and institutional models of their free choice provided they meet the program requirements (paragraph 2.12), which the program will help them to do. This requirement is needed because the subnational governments currently lack institutions capable of handling road management due to the technical scale and fragmented structure with which they operate. The program will therefore promote the concentration and consolidation of these activities, through which the subnational governments will turn over road activities to the IGVP that they will establish and control. This transfer of functions is expected to be gradual, and as the IGVP become established the subnational governments will give them an increasing share of the responsibilities, duties, and resources, guaranteeing the sustainability of the IGVP and its management model, independently of program continuity. The program will have financial incentives in the form of increased investment resources to stimulate and encourage this transfer so that it is attractive and beneficial for the participating provinces. As a penalty for noncompliance with the commitments stipulated in the agreements and the OM, the subnational governments will agree to repay resources already received that were not properly executed and may be excluded from the program.
- 3.4 The UCV will be responsible for execution of the institutional strengthening component, offering technical, institutional, and financial support to the subnational governments for the proper management of their part of the network. The UCV's work will focus on: (i) support for establishment of the IGVP, their development

and strengthening, supervising their activities, and ensuring they achieve their objectives while preserving their autonomy; (ii) support for the development of the PVPP and its periodic updates, guaranteeing a clear process with participation by communities and local authorities in the identification of needs, prioritization of the works and honoring of these priorities; (iii) centralization of knowledge and lessons learned, ensuring the dissemination of experiences among the various participating subnational governments; (iv) implementation of the systems for monitoring and evaluation of the program; (v) updating of technical and environmental regulations and development of manuals to facilitate their implementation, providing training to the IGVP; (vi) supervision and monitoring of the IGVP activities and compliance with the regulations contained in the OM; (vii) submission of financial reports to the Bank on the use of the loan proceeds; and (viii) modernization of the Government of Ecuador's road policy for local roads, as well as the development of a policy on rural transportation and accessibility.

C. The program's regulatory framework

3.5 The LORETF (paragraph 1.6) provides that for the transfer of resources from the central government to the subnational governments as called for in this program, relations between the parties will be governed by specific agreements. In this case several agreements will be established, given the variety of stakeholders involved. These agreements regulate not only relations between the central government and its agencies but also relations among the subnational governments. The agreements, and the instruments for their approval, will be a condition precedent for the first disbursement to a given province.¹⁷ These agreements are:

- a. *Framework agreement*: as explained above (paragraph 3.3), the framework agreement expresses the political decision of the subnational governments to participate in the program; it is only signed once. The signatories are the MOP on the one hand, and the provincial and municipal councils, on the other hand. The agreement specifies the general rights and duties of the parties, especially the UCV's obligation to provide technical, institutional, and financial assistance and the subnational governments' obligation to establish the IGVP, to comply with the program's procedures, and to make the counterpart contribution. The framework agreement is signed by the provincial prefect and ratified by the municipal councils. Finally, and in order to make it operational, a provincial ordinance is issued for establishment of the IGVP.
- b. *Participation agreement*: signed between the UCV and each of the IGVP, defining their roles, rights, and responsibilities within the framework established

¹⁷ If a province fails to fulfill the obligations of the framework agreement or participation agreement to the satisfaction of the UCV and the Bank, the UCV: (i) will not include any new activities in that jurisdiction until the province has taken corrective measures satisfactory to the Bank; (ii) will exclude that province from its annual program of activities; and (iii) the province will be required to repay to the government the sums previously transferred to it for execution of the program.

in the above-described agreement. It too is signed only once. It spells out the responsibilities of the IGVP (execution of works and their supervision, designs, receiving institutional support and applying and complying with the program's procedures and regulations, submitting reports to the program and the community, establishing mechanisms for transfer of funds and opening of accounts, etc.) and those of the UCV (financing activities, conducting activities for institutional strengthening regulation, standard-setting, monitoring, and oversight). This agreement cannot be signed until the governing board of the IGVP is established and its authorities are appointed.

- c. *Operations and financing agreement*: signed annually by the UCV and the IGVP, this agreement establishes the annual provincial road investment plan (PIAV), identifies eligible roads and the activities to be carried out on them, as well as the parties' financial obligations (financing of the program and the subnational governments counterpart). The agreement establishes the sources of financing for the local counterpart contribution, giving preference to automatic transfer from central government sources, although the subnational governments may offer alternative sources with similar guarantees; and
- d. *Interagency financial agreement*: sets forth the financial obligations of the subnational governments participating in the IGVP to implement the PIAV. This agreement ratifies the road priorities for the year, establishes the road plan, needs for investment and maintenance, financing and counterpart support, dividing the support among the provincial council and the participating municipalities. It is an agreement within the subnational governments in the province, which sign it and notify the UCV and the Central Bank of Ecuador (BCE).

D. System for transfer of resources

- 3.6 The program will transfer most of the resources to the IGVP, so that they can carry out the activities for which they are responsible. This transfer is made from the budgetary allocation for the program in the MOP budget. The various financial parties are:
 - a. *the funders* (IDB, WB, MEF, subnational governments), which make disbursements to the BCE;
 - b. *the Central Bank of Ecuador*, which receives resources from the Bank, the IBRD, and the MEF in exclusive "T" (transfer) accounts and administers the transfers to the UCV and the IGVP;
 - c. *the UCV*, which is responsible for maintaining the single decentralized financial system and authorizing transfers of loan resources to the IGVP;
 - d. *the IGVP*, which administer the program's resources; and

- e. *private banks*, which maintain the revolving payment accounts (CRP) to which the BCE will transfer the program's resources, and for income account (CI) from the IGVP.

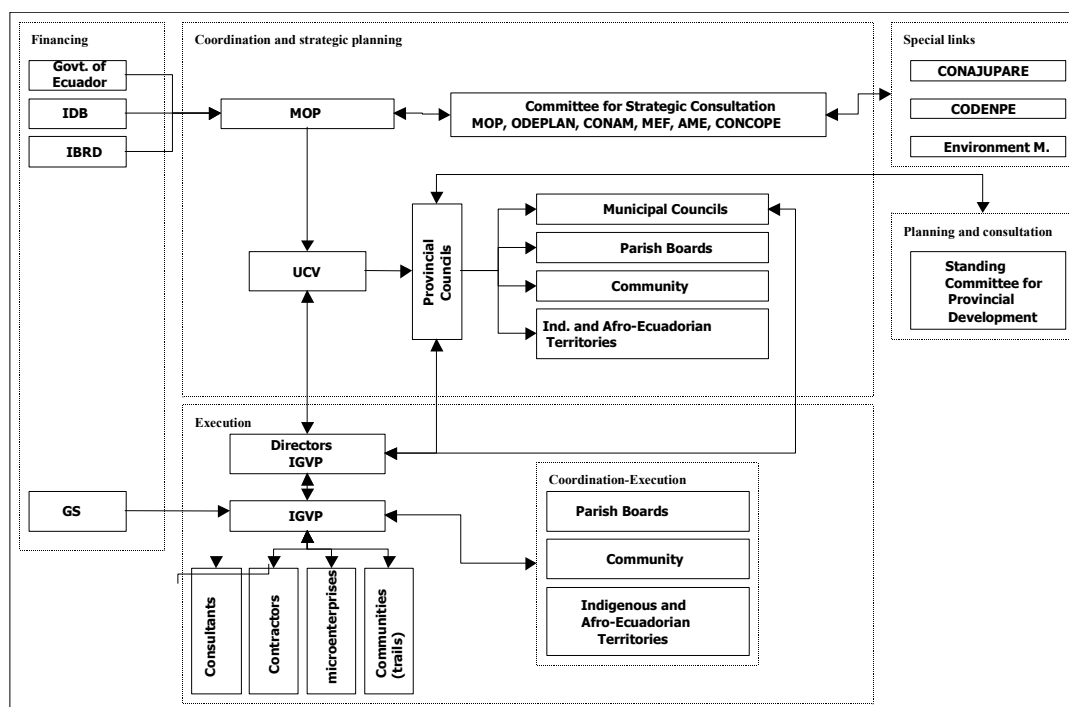
3.7 The system for transfer of resources will operate in the following manner:

- a. The Bank will transfer loan resources to an exclusive account in the BCE; the IBRD has a similar account.
- b. The BCE will open exclusive "T" accounts for the UCV and each of the IGVP, which will have three sources of deposits: (i) IDB, WB, and local counterpart (MEF), to be used for financing the UCV; and (ii) IDB, WB, and subnational governments, to be used for financing the IGVP.
- c. The UCV and the IGVP will open their CRP, after which they will be able to make the respective payments. These CRP are opened with authorization by the BCE, which will select a private bank by competitive bidding. The IGVP will sign an agreement with the private bank to open the CRP and also open an income account (CI) in the same bank.
- d. The subnational governments will authorize the BCE to retain part of its resource transfers to feed the "T" account of the IGVP in its jurisdiction, or open a revolving account for income, in which it will deposit its counterpart contributions.
- e. The "T" accounts in the BCE for the IGVP will initially have a zero balance, receiving resources only to make payments authorized by the UCV. Subsequently, after performance review, deposit of resources may be authorized with ex post verification of the payments made.
- f. The "T" account will be used only for payment of those contracts authorized by the program and in compliance with its regulations, which clearly stipulate that its resources may only be used to finance program activities. The "T" account will only reimburse resources to pay obligations assumed by the IGVP after it has received the counterpart resources required for that obligation. Regular reports will be submitted to the IGVP, the subnational governments, and UCV, and the Bank.

3.8 To ensure proper monitoring and financial control of the transferred resources, as part of its institution strengthening component, the program will help the UCV, the subnational governments, and their IGVP to come into the financial management system (SIGEF) and national public investment system of the Ministry of Economy and Finance. In addition, the UCV, in coordination with the SIGEF, will prepare a page on the UCV website to disseminate the program's financial and contractual information, to allow citizen monitoring and oversight of the activities of the IGVP and the UCV.

E. Other parties and participants

- 3.9 For national coordination, the UCV and the MOP will maintain active relations with the National Council for Modernization of the State (CONAM), which is in charge of the decentralization process, the National Planning Office (ODEPLAN), the Ministry of the Economy and Finance (MEF), all of which are central government agencies, and with the Association of Provincial Councils (CONCOPE) and the Association of Ecuadorian Municipalities (AME), which include prefects and mayors, respectively. These institutions have formed a Strategic Coordination Committee (CCE) that offered policy guidance to the UCV to define the program scope and to prepare for it, and will monitor on its execution. The UCV, in turn, will maintain direct relations with the prefects and mayors of the individual provinces and municipalities, and will ensure coordination of the program at the local level through community workshops and meetings with parish boards.
- 3.10 The program will have other stakeholders, principally the communities and their community organizations and local authorities, with whom the program will work closely to discuss basic needs, expectations, and suggestions, such as representative civil society organizations, like the Council for Development of the Nations and Peoples of Ecuador (CODENPE), local governments (CONAJUPARE-National Council of Ecuadorian Parish Boards) and the indigenous and Afro-Ecuadorian territories. It will also maintain close ties with provincial agencies, such as the Standing Committee for Provincial Development, responsible for the development planning system, which the program will use. It will also work closely with other central government agencies, such as the Ministry of the Environment.
- 3.11 The following chart shows the relations between the institutions mentioned and the level on which each one of them will operate. These levels are: (i) coordination and strategic planning; (ii) financing; (iii) execution, and (iv) special links.



F. Financial capacity of the subnational governments

- 3.12 The subnational governments will receive most of their resources as transfers from the Government of Ecuador. The main transfer, established by the 15% Law (no number), provides that the central government must give the subnational governments 15% of the national budget, an objective that apparently will be exceeded this fiscal year for the first time. These resources, managed autonomously by the subnational governments, are to be used mainly for “plans or projects to improve the living standard of the less-developed segments of the population” (Article 3), which includes the rural population. These resources, which will amount to US\$500.8 million in 2003, represent 98% of the total transfers to the subnational governments, and are broken down as follows:
- a. *Provincial governments* receive 30%. The criteria for distribution of this amount are: (i) population with unmet basic needs (50%); (ii) total population (40%); and (iii) surface area (10%).
 - b. *Municipalities* receive 70%. The criteria for distribution of this amount are: (i) population with unmet basic needs (50%); (ii) total population (40%); and (iii) equal shares (10%).
- 3.13 For the 19 provinces in the program (as noted above, Pichincha, Guayas, and Galápagos will not get investments, but they will receive institutional strengthening), transfers will be US\$122 million for the current year (2003), while the municipalities are scheduled to get US\$283 million.

- 3.14 The subnational governments have their own resources to increase the level of available funds. They have the following specific taxing authority:
- a. *Provincial governments*: their own sources are limited. Besides the transfers mentioned above, they have (i) the Subnational Development Fund (Law No. 72); (ii) the Provincial Development Fund (Law No. 65), each of which has 1% of the transfers from the 15% Law; (iii) other special laws (of little economic weight, selective for certain provinces); (iv) fees; and (v) special contributions for improvement of public works, especially roads.
 - b. *Municipal governments*: their fiscal income comes from taxes, fees, and special contributions. The taxes apply to: (i) urban and rural property; (ii) sales taxes (on real estate transfers); (iii) business licenses and industrial permits; (iv) public entertainment; (v) vehicles; and (vi) the lottery and other minor sources.
- 3.15 Subnational governments income, when compared with the resources the program will require for counterpart during execution, shows the financial capacity of the subnational governments to assume this obligation, and the possibility that they may channel additional resources to expand and improve the quality of road investments.

G. Organizational structure and staffing of UCV

- 3.16 The UCV has an organizational and reporting structure in transition. The unit was originally established under the PIRT. This structure is now necessarily evolving from a unit to support execution to a unit that will provide technical, institutional and financial assistance to the subnational governments for rural road management. To achieve this institutional transition, a number of objectives will be targeted simultaneously under the proposed program: (i) changing the UCV from a supporting unit to an MOP line agency, in accordance with current government policies; (ii) promoting professionalization of UCV functions, by recruiting the most highly qualified and experienced staff for key positions, to be financed with local counterpart funding; (iii) establishing a streamlined, efficient structure, in which job descriptions and the technical and professional profiles support this objective; and (iv) setting staff remunerations in accordance with a standard salary policy that reflects market trends. These issues will be detailed in the OM and will therefore require a statement of nonobjection by the Bank.
- 3.17 The Government of Ecuador indicated its willingness to cover new positions, primarily with MOP staff. For this to be possible, the staff must have the qualifications established, based on the above-described considerations. If the MOP does not have qualified staff, the UCV will seek professionals through competitions to be supported by a specialized company. All the staff thus selected under the two procedures must be previously agreed upon with the Bank. Bank procedures must be followed for the hiring of the specialized company, which will be financed with local counterpart funding.

H. Monitoring, supervision, and evaluation system

- 3.18 The monitoring, supervision, and evaluation system will be the main tool for checking progress in the process of provincial participation in the program, correcting the course as needed, and consolidating the strategy for distribution of resources based on merit or performance.

1. Monitoring

- 3.19 Monitoring will include systematic reviews of the program's progress and the annual operating plans by the UCV. Within 30 days after the end of each quarter the UCV will submit quarterly progress reports on the program. The main indicators in these reports are presented in the logical framework. The UCV will identify others that serve the same purpose and will include them in the OM. These reports will include at least the following information: (i) progress in regard to the agreed-upon benchmarks and timetable for disbursements; (ii) *pari passu* review of the program in general and the active executing and co-executing agencies; (iii) compliance with contractual terms; (iv) incorporation and participation of provinces and progress in each of them; (v) detailed program of activities and plan of action for the next two quarters; and (vi) any issues that could affect the program's performance. The quarterly reports will have a specific and separate chapter on the indicators for monitoring the financial situation of the participating subnational governments. The operations manual will establish the content of the quarterly reports.
- 3.20 No later than 30 September each year the UCV will send the Banks and the MEF the *annual operating plan (AOP)* for the next year, which will include the provincial PIAV, with the activities and projects to be financed, certification of compliance with the criteria for eligibility and technical, environmental, and social studies of the roads to be repaired, timetable and estimated budget. The AOP for 2004 will be a condition precedent for the first disbursement.
- 3.21 The program will use a central data processing system in the UCV to help monitor program execution in the provinces, which will have simpler systems compatible with the central system. The computerized monitoring system was already developed under the PIRT and has begun operations.

2. Supervision

- 3.22 The Bank and the IBRD will supervise the project through a joint project team, following the structure used during preparation of the operation. The respective project team leaders will coordinate the schedule and membership of semiannual supervision and review missions. The evaluations will afford an opportunity to review: (i) execution of the works; (ii) performance of the UCV and progress in institutional strengthening of the IGVP; (iii) suitability of the procedures indicated in the OM; (iv) justification of investments made, institutional proposals to be acted

on, and action plan; (v) status of contracting for works and participation of local contractors in them; (vi) budget for the following period; and (vii) timetable for program execution and performance indicators.

3. Monitoring and evaluation

- 3.23 The program's evaluation system consists of five stages or reports, whose content and order are as follows:
- 3.24 *Baseline.* A baseline report will be prepared during the program's first two years in a sample of the provinces that is representative of Groups 1 and 2 and the different socio-environmental and cultural features of the coast, the highlands and the eastern region. The baseline will provide detailed information on the socioeconomic situation of the intended beneficiaries of the system, supplementing the partial baseline data already available for the PIRT provinces.
- 3.25 *Technical, environmental and social audit.* This audit will be conducted semiannually by sampling and will review the technical, environmental and social results of the road repair and maintenance under the program and compliance with the OM.
- 3.26 *Midterm review.* Two and a half years after program startup or once 50% of the loan has been disbursed (whichever comes first), the Bank will review: (i) initial results of the repair and maintenance of the roads; (ii) procedures and results of contracting for works and procurement of goods and equipment; (iii) procedures and results in institutional strengthening of the IGVP; (iv) the UCV's capacity for oversight and monitoring of the work of the IGVP; (v) the technical and regulatory capability of the UCV; (vi) the counterpart contribution of the subnational governments, use of resources based on merit or results and possible shifting of their access and use; (vii) participation of the community at the various stages of the project; (viii) citizen oversight and publicity and dissemination of the program's activities; and (ix) review of the UCV structure and functions, with a view to incorporating the UCV into the MOP institutional structure.
- 3.27 *Evaluation of short-term socioeconomic impact.* The UCV, following the experience of the PIRT, will use program resources to collect detailed data for comparison with the baseline data (paragraph 3.24), to evaluate the short term impact of the program on the living conditions of the target population. The impact includes demand for transportation, e.g. an increase in traffic and its makeup, reduction of travel time and transportation costs for passengers and freight, and reduction of down time and impassability of the roads.
- 3.28 *Program completion report (PCR).* At the end of the program the Bank will prepare a PCR.
- 3.29 *Ex post evaluation.* The project team consulted with the MOP about including an ex post evaluation of the program's medium-term impact. The MOP recognized its

importance, but since it would have to be conducted at least three years after program execution to adequately measure its impact on the living standard of the users, it would be best not to include its cost in the program. If the Bank decides to finance this study in the future with its own resources, the MOP agreed to give the Bank unlimited access to all information collected and available to date in its files. This information will include that mentioned in paragraphs 3.24 and 3.27, together with any other relevant data on program execution available in the UCV and the IGVP, especially that concerning indicators of goals and performance as identified in the logical framework.

I. Procurement of goods, works, and consulting services

- 3.30 The procurement of works, goods, and consulting services will be carried out in accordance with the Bank's procurement policies and procedures, except as indicated below. The thresholds for use of international competitive bidding (ICB) will be: for the procurement of goods, contracts equal to or greater than US\$250,000; for civil works, contracts equal to or greater than US\$3 million; and for consulting services, contracts above US\$200,000.
- 3.31 For consulting services, the banks have agreed to divide procurement: those services hired by the Bank will follow its policies and procedures and use its standard documents. Since the consulting services needed are not complex, the project team recommends including selection based on quality and cost (SBQC) in accordance with the Bank's policies for procurement of consulting services. In this case, cost will have a weight not to exceed 30%. Consultants will be hired in accordance with established procedures, except for individual consultants for less than US\$30,000, who may be hired by direct contracting. This exception is due to the specialized expertise required for some tasks, including community relations.
- 3.32 Given the amounts involved, since all the works will be under local competitive bidding and well below the limit requiring international competitive bidding, it is unlikely that firms in countries that are not members of the Bank will participate in the bidding. However, if this should happen, the WB will have total responsibility for oversight and approval of the process of selection and awarding, including the processing of any protests, and all international financing for same.
- 3.33 If, on the other hand, only firms in Bank member countries participate in the bidding and there is a protest it will be handled in accordance with the Bank's procedures and financed solely with its resources.
- 3.34 To avoid problems in execution, the following actions are planned: (i) establish a similar initial pari passu review for both institutions for all components; (ii) if firms in countries that are members of the WB but not the IDB bid, as explained above the WB will fully finance that contract and its payments will be matched with a larger IDB pari passu in another bidding procedure, or the next procurement will be limited to IDB members. This same procedure will be adopted if bidding is

financed solely with IDB resources; (iii) preparation of standard procurement documents valid for both banks; and (iv) a single system for monitoring, oversight, and evaluation of the UCV agreed upon by both banks.

- 3.35 For repair of the trails, there will be direct contracting of CVC, community organizations established under the program for technical work of repair and maintenance of the trails. Maintenance of local and tertiary roads will be done through direct contracting of MEMV established under the program. Both of these contracts are estimated to cost less than US\$50,000. The nature of repairing trails calls for one-time contracting that does not require competitive bidding, so it is recommended that direct contracting be used with proper supervision. In the case of the MEMV, although repeat contracts are permitted (the amount mentioned above is the annual ceiling), they are established in the program design as part of the best way to ensure ongoing maintenance of the roads. These will be the only activities the IGVP may contract directly, with prior approval of the UCV.

J. Review of procurement

- 3.36 There will be an ex post review of procurement procedures for: (i) works costing more than US\$500,000; (ii) goods, regardless of the amount; (iii) consulting firms for amounts above US\$100,000; and (iv) individual consultants for more than US\$50,000. As for consulting services, those of consulting firms costing US\$100,000 or more and services of individual consultants costing US\$50,000 or more will be hired in accordance with the Bank's policies and procedures. Services costing less will be covered by ex post procedures, except for consulting services not foreseen in the OM, which will require the Bank's nonobjection to the terms of reference.
- 3.37 The planned level of ex ante review (about 35% of the works contracts and 20% of the consulting service contracts) is considered adequate and viable and will permit passing of lessons learned to the coexecuting agencies. In addition, close monitoring of these activities will occur through: (i) the program's technical and operational management control firm, which will conduct semiannual reviews; (ii) hiring of a procurement specialist in the UCV; (iii) the information and monitoring system that will make it possible to compare costs of similar projects; (iv) the holding of training courses by the banks; (v) management missions by the banks and the Country Offices, which will conduct periodic reviews and spot checks, frequent on-site visits and reviews of procurement documents.
- 3.38 The first two local competitive bidding procedures for works and consulting services of each IGVP will be subject to ex ante review, in order to ensure that the coexecuting agencies fully understand the program procedures and regulations. If this experience indicates that the training received is insufficient, the Country Office may continue to require ex ante review of contracting procedures of the IGVP until it has developed sufficient capability.

K. Financial and accounting records

- 3.39 The program books will be kept by the UCV, which will have final responsibility for the contracting process and filing of the supporting documents for the transactions made under the program. The UCV will also have primary responsibility for verifying the eligibility of all IGVP expenditures, that the IGVP have received the required counterpart contribution, and that they have complied with the program procedures. If they have not, the UCV will report them and remove them from the activities financed by the program and apply penalties to the IGVP as needed. Implementation of the UCV's internal accounting and control system and its functioning to the Bank's satisfaction are a condition precedent for the first disbursement.
- 3.40 The UCV's responsibilities include preparation of: (i) requests for disbursement and supporting documentation for eligible expenses; (ii) semiannual reports on the movement of the revolving fund; (iii) audited financial statements and other reports required by the Bank; and (iv) an adequate filing system for supporting documents on eligible expenses for verification by Bank staff and external auditors. The UCV must also maintain: (i) separate books for the program operations integrated into the MOP system, in order to permit accounting and financial management of the financing from the Bank, the IBRD, and local counterpart; according to IDB requirements; (ii) separate and specific bank accounts for managing the financing from the Bank and the IBRD, and the local counterpart funds; and (iii) a contract management system to identify operations for which the UCV is responsible, and consolidation in this system of data on contracts signed by each IGVP.
- 3.41 Coexecuting agencies must: (i) prepare and present to the UCV: (a) requests for disbursement and supporting documentation for eligible expenses of the program; (b) financial information and other reports required by the UCV; and (c) maintain an adequate filing system with supporting documents for verification by Bank staff and external auditors; (ii) keep separate books for the program operations to facilitate accounting and financial management of the financing resources from the IDB, the IBRD, and the local counterpart, in accordance with the IDB's requirements; (iii) maintain separate designated bank accounts for the financing and local counterpart; and (iv) manage the selection and hiring of consulting services and the procurement of goods, including a contract management system.

L. Revolving fund, disbursements, accounting, audits, and financing

- 3.42 *Revolving fund.* A revolving fund will be opened with an authorized allocation equivalent to 10% of the loan amount (US\$3 million). The allocation is larger than the usual 5% because the program will have multiple coexecuting agencies, from whom collection of information to confirm expenditures may be delayed, thus hampering operation of the fund. The Bank will replenish the fund once it has the corresponding duly substantiated requests for disbursement from the borrower. The UCV will control the use of the fund and will be responsible for preparing the

requests for disbursements on behalf of the borrower. The UCV will submit semiannual reports on the status of the revolving fund within 60 days after the end of each semiannual period.

- 3.43 *Records and control of disbursements.* Payments for contracts for works, goods, and consulting services will be made by the IGVP or the UCV, according to the above-mentioned division of responsibility. The pertinent financial data, including contracts and agreements for construction, service contracts, invoices for works completed, etc., will be approved as provided in the OM before any payment is made. Financial accounting for transactions and expenditures during the execution and administration of the program will be subject to control by the UCV in order to strengthen internal financial control and prevent errors in the operation or allocation of funds. Activity in each account and the cash flow, including reconciliation of statements of the bank accounts included in this provision, will be subject to central control and independent verification.
- 3.44 *Disbursements.* The first three requests for disbursements, for whatever purpose, and those for works contracts for more than US\$500,000, consulting firms for more than US\$100,000, individual consultants for more than US\$50,000, and goods for more than US\$50,000 must be fully documented. For other cases, if COF/CEC has given its nonobjection to the control and filing systems, supporting documentation will not be required, but will be kept by the UCV where it will be available for review by the Bank and external auditors when they deem it necessary.
- 3.45 *External audit.* An external audit will be performed by an independent auditing firm acceptable to the Bank and in accordance with its requirements, based on the guidelines established in the terms of reference and procedures¹⁸ for the selection of the firm, which must have the Bank's nonobjection. The external audit will be financial and operational, requiring the presentation of an interim semiannual report within 60 days after the end of the first semiannual period¹⁹ and an annual report on the program's financial statements within 120 days after the close of the fiscal year. Auditing costs will be part of the program cost and financed with the loan proceeds. The auditors will be hired for a multiyear period of at least three years. The audited financial statements at the end of the program will be submitted within 120 days after the final disbursement.

¹⁸ The terms of reference will follow the guidelines set in Terms of Reference for External Audit of Projects Financed by the IDB (document AF-400), which may be modified to include the WB requirements. For selection and hiring of the firm, procedures substantially similar to those established in the Request for Proposals for External Audit (document AF-200) will be followed. The external audit will cover operational aspects, especially procurement, as described in the terms of reference. These guidelines and procedures will be agreed upon with the WB in order to hire a single firm.

¹⁹ The report will contain, among other things, an evaluation of the environment and structure of the internal control system and a comprehensive review of the procedures for procurement and disbursement.

- 3.46 *Retroactive financing and recognition of expenses.* The execution of the PIRT and the related technical cooperation have not left any eligible preparation expenses for retroactive financing. The Bank will recognize eligible expenses for up to US\$1.2 million.

M. Execution period and disbursement schedule

- 3.47 The minimum execution period is 36 months and the maximum is 54 months. The proposed loan is expected to be fully disbursed in 60 months.

IV. VIABILITY AND RISKS

A. Institutional viability

- 4.1 The program's greatest challenge is undoubtedly the institutional structure that it wants the subnational governments to adopt. The subnational governments have a shared authority to act independently on the local road network. The system is inefficient, however, because the size of the network under their care is too small for any of them by themselves to operate it on an efficient technical scale. The program therefore proposes a new organization to tap the efforts and potential of each of them. This apparently difficult objective is being implemented in Imbabura and El Oro provinces, which are organizing to be the provinces in a representative sample of the program, while the UCV works with other provinces that have expressed interest. The results of the "Monitoring of Performance Indicators of the PIRT"²⁰ show that provincial and municipal authorities of the six provinces served by the program are fully satisfied with the methodology used in the participatory planning process and agree with the basic concepts for establishment of road management institutes.
- 4.2 Furthermore, the dual distribution of resources, in preestablished amounts per province based on merit criteria, with incentives for transferring increasing responsibilities to the IGVP (paragraph 2.22), as well as ongoing monitoring of this activity during execution, imply that the IGVP should be established as the most efficient means for road management in the province, pooling resources that today are managed in a fragmented fashion. However, this is one of the most important hypotheses to be tested in the program.

B. Economic viability

- 4.3 Before a road's economic viability can be determined, it must meet a series of eligibility requirements, related to the program's criteria for participation. The main ones are: (i) inclusion of the road in the PVPP; (ii) environmental and social viability; (iii) documented commitment for community participation; (iv) acceptance of proposed technical standards; and (v) degree of connection and integration of the road in the network. If these requirements are met, most of them during the stage of entry into the program and preparation of the PVPP, the individual road will be the subject of an economic evaluation.
- 4.4 Economic viability will be analyzed separately for the two groups of roads, in accordance with the volume of traffic, while the maintenance activities will be evaluated simultaneously with the economic viability of the repair works done, because they are an integral part of the investment strategy to ensure that the

²⁰ Ayala Consulting Cia Ltda. Quito, EC, June, 2003.

desired results are achieved, especially that the road lasts the useful life for which it was designed. The economic evaluation of a road will include the following technical cycle and related investments: repair, routine maintenance (and if necessary, emergency maintenance), periodic maintenance, continuation of routine maintenance, and so on until deterioration or increased demand requires new repair.

- 4.5 The program roads are considered differently depending on their traffic volume: (i) above 50 vehicles/day there will be a formal economic evaluation, based on cost savings in vehicle operation; these roads must have an internal rate of return (IRR) over 12%. To determine the IRR, the program will use the RED model, which was especially developed for low traffic roads; and (ii) roads with traffic below that level will be subject of a cost efficiency analysis, in which the program will finance all those roads whose investment per resident benefited does not exceed US\$200.²¹ If, according to the program's technical repair standards, a given road requires an investment per resident above the amount mentioned, it will not automatically be excluded but could receive improvements at critical points with the most serious obstacles to traffic, without exceeding the stated threshold. Trails will be given the same treatment.
- 4.6 During the preparation of the program an economic evaluation was conducted on 162 km of roads in the representative sample. The results of the economic evaluation²² for each province were as follows:
- a. *Imbabura*: 87 km will be repaired in five roads from 7 km to 32 km long, with traffic of between 12 and 20 vehicles per day and a target population of 12,600. Owing to the low traffic volume, the cost/efficiency criteria were applied, and the estimated investment will not exceed US\$15,000/km. Under these guidelines all the roads would qualify, because on average (this is also true for each road considered individually) the investment would be about US\$100/person, well below the cutoff figure of US\$200, except for the longest road, which would require an investment of US\$210/person and consequently an adjustment in the technical repair standards.
 - b. *El Oro*: 75 km will be repaired in five roads ranging from 6 km to 25 km long, with traffic of between 57 and 256 vehicles per day, except for one which has traffic of 14 vehicles/day, and a target population of 12,500. Given the average traffic, the cost/benefit criteria were applied (IRR), and the roads had an IRR of 94% and a net present value of US\$3.9 million (discounted at 12%); the low traffic road shows an investment of US\$142/person.

²¹ Average repair costs are US\$25,000/km for roads with average daily traffic of more than 50 vehicles and US\$15,000/km for those with less traffic. These costs will be reflected in the repair designs and in the resulting works contracts.

²² Local Roads Program. First year repair plan. Economic analysis. Provinces of Imbabura and El Oro. Local Roads Unit, MOP. October 2003.

C. Financial viability

- 4.7 The program's financial viability is guaranteed thanks to the commitment of the Ecuadorian government to support it, and the simultaneous freely assumed obligation of the subnational governments to cover the local counterpart, thus reducing the possibility of delays in execution for lack of funds. Contributions by the subnational governments are a relatively small percentage of the resources they manage and require shifting the resources currently allocated to the roads for which they are responsible. Technical sustainability, effective cost savings produced by the new management model, and actions begun independently by the provinces served by the PIRT to keep funding the maintenance and extend it to other roads are indicators of the program's financial viability once the program financing is exhausted (paragraphs 1.10, 2.23 to 2.25, 2.32 to 2.36).

D. Benefits and beneficiaries

- 4.8 The program will have important socioeconomic benefits that will contribute to improvement of the quality of life of the rural population. Repair and maintenance of the rural transportation infrastructure will consolidate an integrated and reliable road system that will facilitate access and reduce travel times for the communities to the basic social and economic infrastructure services and integrate them with the subregional centers, expanding the markets for agricultural products and reducing marketing costs.
- 4.9 Short-term benefits will be a reduction of transportation costs and travel times, diversification, expansion, and better geographical coverage and reliability of transportation services and lower costs for users. This will translate into greater availability and variety of transportation services. The benefits from expansion and diversification of the economic base and resulting reduction in the poverty level will appear in the medium term, the benefits of roads with year round accessibility are consolidated.
- 4.10 The main institutional benefit is expected to result from the subnational governments' implementation of a road management and maintenance system that will address the current problems of jurisdiction and institutional distribution, and will demonstrate the advantages of acting under clear technical guidelines for planning and community participation, with technical solutions suited to demand and fiscal and budgetary constraints. An additional benefit will consist of rationalization of road expenditures, which consume a large share of the subnational governments' budget, and the adoption of clear, transparent, and participatory budget management methods that ideally could be extended to other areas of provincial and municipal government.
- 4.11 The road maintenance microenterprises, organized by residents of the communities along the repaired local roads, will be a permanent source of employment,

generating new and sustained income for the community and increasing and diversifying local demand for products and services.

E. Expected outputs and results

- 4.12 The expected outputs are those described as physical goals of the various components (paragraph 2.37 to paragraph 2.39), i.e, a large number of local, and tertiary, roads and trails repaired and being maintained under the watchful eye of the community and local authorities, and maintained by microenterprises formed by local residents, on a scale that accounts for a significant part of the respective road network in the province.
- 4.13 The program's extensive benefits will include widespread economic and social effects; among short-term results it is expected to benefit about 300,000 rural residents, of whom 85% are poor and 54% extremely poor, by: (i) reducing the time and cost of transportation; (ii) reducing the time roads are closed and impassible; (iii) increasing and diversifying the supply of transportation and reducing fares for passengers and charges for freight; (iv) increasing school attendance and use of health centers; and (v) improving access to markets in general, and also to those that are more complex. In the medium and long terms these results will be consolidated, especially the impact on production and improved socioeconomic conditions of the target population. In addition, the establishment of 130 microenterprises for road maintenance will give permanent and stable jobs to 750 residents in the area of influence of the roads.
- 4.14 The institutional benefit is expected to be improved road management, incorporating road planning, and organizing spending by subnational governments on roads—currently disorganized and fragmented—through planned, orderly, transparent management accountable to the public. Given the importance of road management in the subnational governments responsibilities the program is expected to improve the quality of the decentralization of functions and the governance of local governments. The program will also develop the local market for consulting services (technical, economic, and environmental road studies), small road contractors, developing a market for them, which local authorities can tap, gradually abandoning the practice of having works done on force account, and development of routine maintenance microenterprises, bringing local residents into the market economy and promoting their productive potential. A collateral benefit will be formalization of a major share of subnational governments expenditures, bringing contractors, consultants, and enterprises into the national tax and social security system.

F. Impact on poverty

- 4.15 The program's primary focus is improving roads in low-income rural areas (poverty and extreme poverty), seeking broad coverage in terms of geography and population served with low-cost roads and a technical standard commensurate with

the level and nature of demand. The program benefits may thus be appropriate for a large share of the neediest rural population. The operation therefore qualifies as a poverty-targeted investment (PTI) based on geographic targeting. It also qualifies as a social equity enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). The borrowing country will not be using the 10 percentage points in additional financing.

G. Social and environmental feasibility

- 4.16 The program works, like the PIRT's, will be small-scale, involving repair of roads surfacing; they do not include paving, widening, or changes in alignment. The program will also cover improvements in pack trails (used for non motorized transportation). In this context the possible negative environmental impact will be largely direct and small-scale, during the construction stage, and can be avoided and controlled using standard mitigation procedures. No indirect negative social and environmental impact is expected in the projects in the previously consolidated areas of the highlands and the coast, although there could be some in projects located in some areas in the east, near protected areas or those with a significant indigenous population, where special provisions will be adopted.
- 4.17 The ex post evaluation of a sample of local roads repaired by the PIRT, conducted by the project team, showed that the problems are infrequent and when they occur they generally involve: (i) failure to properly dispose of small amounts of surplus material along the repaired roads; (ii) wrong positioning of culverts, interfering with the use of adjacent property; (iii) diverting water for irrigation by adjacent residents; and (iv) lack of traffic safety signs near villages.
- 4.18 The program has an *environmental and social management system* (SIGAS), developed under the *Environmental and Social Strategy Assessment* (ESSA) for this operation, which included:
- a. *an environmental and social management policy* for local roads, defining the criteria for environmental and social eligibility to be met for project selection;
 - b. *a participatory road planning process* that encompasses environmental, consultation, and social participation policies to include indigenous and Afro-Ecuadorian groups, as well as policies for promoting outreach and access to information, and poverty alleviation;
 - c. *a community participation plan* throughout the project cycle, from the planning described in the previous point to ratification of the priority for the roads, the execution of the studies and works, the establishment of the MEMV, supervision of maintenance activities, and social oversight of the operation of the repaired roads;
 - d. *an environmental and social regulatory framework of the PCV*, an integral part of the OM, including: (i) selection criteria for the program's local roads,

included in the participatory road planning process; (ii) environmental, social, and gender requirements in the contracts for works, supervision of works, and routine maintenance, including consultations with target populations using culturally appropriate methods for dissemination; (iii) environmental and social guides for repair, maintenance, and operation, in order to ensure that the projects include environmental safeguards and respect the customs and cultural characteristics of the indigenous and Afro-Ecuadorian groups; and (iv) mechanisms for settlement of community complaints;

- e. *a training program*, which is needed in order for the UCV, subnational governments, and IGVP to properly execute the program;
- f. *a guide for the environmental and social assessment of projects*, by categories, established on the basis of a comprehensive review of the potential, risks, natural threats and environmental weaknesses:²³ (i) most of the program's projects fall into Category C, which includes those that could have little impact because of the low natural and socioeconomic sensitivity of their area of influence, and require technical specifications for execution of the works that include good environmental and social practices; (ii) projects with some potential impact because they involve areas of moderate sensitivity (Category B), requiring a specific simplified environmental and social assessment (a simple document a few pages long), and the corresponding environmental and social measures, including those for dealing with at-risk groups, among them the indigenous and Afro-Ecuadorian groups, and whose implementation costs will be included in the project; and (iii) projects with significant social and environmental impacts (Category A) not included in the program; their inclusion would be allowed by exception, with the Bank's nonobjection, in cases of great socioeconomic benefit, provided they meet all requirements of Ecuador's *unified system for environmental management* (SUMA), including an environmental impact assessment and an environmental management plan (whose implementation will be included in the project cost), and provided they have the required environmental permit from the respective environmental authority;
- g. *a system for monitoring, supervision and evaluation of the PCV*, which will include: (i) hiring an independent environmental and social auditor using program resources at least twice a year, and by sampling, will review the results of the road repair and maintenance; the auditor will report simultaneously to the UCV, the subnational governments, the Ministry of the Environment and the

²³ In the framework of the ESSA environmental and social mapping of continental Ecuador was prepared using a geographical information system (GIS) with basic digital cartographic data (scale of 1:250,000) and several environmental, social, cultural, and economic variables. Combined analysis of these variables made it possible to identify homogeneous areas of the country in accordance with three criteria: potential, risks, and natural threats. Each of these homogeneous areas was divided into four significant classes or spatial units: very high, high, moderate, or low. Based on comprehensive consideration of the homogeneous areas and their spatial units the environmental sensitivity and category for the projects was determined.

banks; (ii) the ex post evaluation of sociocultural and economic impacts on the population benefited by the PIRT (the PIRT baseline is already available); and (iii) the socioeconomic baseline of a sample of the population expected to benefit from the proposed program, which will include sociocultural indicators.

- 4.19 The SIGAS has been consolidated in several meetings involving members of the Ministry of the Environment, the environmental unit of the MOP, and the UCV.

H. Risks and mitigation

- 4.20 The program risks are political, institutional, financial, technical, and social (acceptance), and those relating to IGVP sustainability:

- a. *Political*: the political risk includes the level of acceptance by the subnational governments of the institutional and technical structure proposed by the program, without it being perceived as undercutting their authority. To mitigate this risk, the UCV is working closely with these officials.
- b. *Institutional*: establishment of the IGVPs demands a radical change in the way roads are managed at the provincial level. The IGVPs could be viewed with mistrust and as competition by the traditional technical structures, which could resist the transfer of responsibility or refuse to accept the new reporting structure. To mitigate this risk there are plans for gradual transition strategies to allow the IGVPs demonstrate publicly their ability to transform road management.
- c. *Financial*: for the subnational governments, payment of the counterpart funding will require reallocating financial resources to unforeseen activities. There is also the cultural factor that according to the traditional view public goods should be provided by the Ecuadorian government at no cost to users. To mitigate this risk, from the beginning the program will have clearly explained financial conditions for participation, will keep these obligations in line with subnational government resources and implement direct deposit systems for the counterpart funding so that there will be no loan disbursement for a given project unless local funds are available for it.
- d. *Technical*: the subnational governments have no experience in low-cost repair of roads, which are considered ill suited to meet demand and the climatic conditions. The PIRT experience, with hundreds of kilometers open, demonstrates that the approach adopted is sound, thereby mitigating the operation's technical risk.
- e. *Social and public acceptance*: the lack of road maintenance under the current management system, causes people to demand higher technical standards than needed (paving). Thus, a program to repair surfacing will likely encounter some resistance from the beneficiaries and local officials. This risk will be mitigated by well-defined technical standards and management that gives priority to road maintenance and intensive public consultation and participation throughout the

project cycle. The risk will also be mitigated by the measures established in the participatory road planning and the geographical allocation and timeline for disbursement of the resources, which will ensure predictability in the program activities.

- f. *Sustainability of the IGVP*: IGVP sustainability upon program completion is a risk requiring complex measures for mitigation, such as criteria for merit-based distribution of resources (sustainability criteria, paragraph 2.19b) in order to provide an incentive for proper operation of the IGVP, and as a result the subnational governments will transfer increasing resources and responsibilities to the IGVP, thus guaranteeing the program's success. If this should not occur, the program will in any event have: (i) demonstrated the management model's viability; (ii) helped to develop local technical capability (government and private); (iii) developed a system for participatory planning; (iv) included the community in the follow-up and civil control; (v) left a substantial part of the rural road network repaired; and (vi) won public acceptance for institutional and technical sustainability.¹

ECUADOR
LOCAL ROADS PROGRAM (EC-0211)
LOGICAL FRAMEWORK

Objective	Indicators	Means of Verification	Assumptions
<p>Goal</p> <p>Contribute to improving the quality of life of the rural population, especially low-income groups, supporting the fight against poverty in Ecuador</p>			
<p>Purpose</p> <p>Improve physical accessibility of the poor rural population to social services, markets, and other income-producing activities, through (i) improved road infrastructure and rural transportation services and (ii) development of efficient and sustainable systems of decentralized rural transportation management.</p>	<p><i>Impact indicators upon program completion (outcome indicators)</i></p> <ol style="list-style-type: none"> 1. Poor rural areas connected to social services and economic activities: <ul style="list-style-type: none"> • 300,000 beneficiaries in the program area of operation, of which 85% are poor and 54% extremely poor, are served by a reliable, integrated, sustainable road network that offers year-round passability (with some use restrictions); • travel times and vehicle operation costs are reduced by 20% after repair of a road; • the number of days the road is closed to traffic or has severe restrictions on traffic is reduced by 20%; • general and commercial traffic (passenger buses, vans, and trucks) will increase by 30% and passenger fares and agricultural product transportation charges are reduced by 5% within three years of the repair; • the number of visits to health clinics in the repaired roads' area of influence will increase by 10% within three years after the repair; 	<ul style="list-style-type: none"> • Operations reports of the UCV and the subnational governments; • Study to assess short-term impact of a sample of roads repaired under the program; • Study to assess short-term impact (for roads repaired in the first year of the program); • Reports of project management missions; • Surveys of and interviews with qualified representatives of the transportation operators; • Statistics on the health and education systems. 	<ul style="list-style-type: none"> • Favorable macroeconomic conditions and trade relations • Continued government support for the rural poverty eradication policy and the project itself • Absence of natural disasters in the area served by the program • The subnational governments pledge their political and institutional support for the establishment and operation of the IGVP

Objective	Indicators	Means of Verification	Assumptions
	<ul style="list-style-type: none"> • the number of school days (primary school) in the affected areas increases by 10%. The number of students attending classes regularly increases by 5% within three years after the repair. <p>2. Jobs created by program completion:</p> <ul style="list-style-type: none"> • 9,300 temporary jobs for unskilled workers in the repair works under the program • 750 permanent jobs for unskilled workers in the microenterprises for routine maintenance <p>3. Strengthened local institutional capacity</p> <ul style="list-style-type: none"> • At least 11 provinces and their municipalities, through the IGVP, assume full responsibility for decentralized road operations, including management of the project resources and cofinancing of works and routine maintenance; • 50% of the highway spending of the participating provinces are channeled through the IGVP; • The IGVP submit periodic reports on their activities to the community; • Division of responsibility among the various government levels and communities are clearly defined and established in the MOP's local roads policy. <p>4. Private sector capacity</p> <ul style="list-style-type: none"> • 750 rural residents are trained as entrepreneurs and participating in performance-based contracts for maintenance. • The local market for works and consulting services is developed, with at least 120 small contractors and 300 local consultants trained and effectively performing their contracts under the program. 		

Objective	Indicators	Means of Verification	Assumptions
Components (results)	<i>Outcome indicators upon program completion:</i>		
1. Repair and maintenance <ul style="list-style-type: none"> Rural transportation infrastructure network) repaired and maintained with a good level of year-round passability (with use restrictions during heavy rains) 	<ul style="list-style-type: none"> 2,520 km de local roads repaired have a good level of passability; 530 km of tertiary roads repaired with a good level of passability; 3,050 km of roads receive ongoing routine maintenance services; 500 km of trails (<i>chaquiñanes</i>) repaired with community support; 130 microentrepreneurs have performance-based maintenance contracts 	<ul style="list-style-type: none"> Program monitoring system; Quarterly progress reports and final report on execution; Bank mission reports; Periodic performance evaluation by an independent consultant (technical auditor). 	<ul style="list-style-type: none"> The subnational governments transfer the necessary financial resources for operation of the IGVP and the counterpart contribution. There are no security problems or social conflicts hampering execution of the works. The local construction industry has the technical, human, and financial resources to support the program. The program gives the IGVP and subnational governments the support and technical, administrative, environmental, and financial training needed to execute the program. The program enjoys uninterrupted financial support from the central government. Provinces and municipalities pledge technical, financial, and administrative resources
2. Institutional strengthening <ul style="list-style-type: none"> Decentralized systems for rural road management implemented and operating properly 	<ul style="list-style-type: none"> At least 11 IGVP established and strengthened 11 participatory provincial road plans executed with at least 250 community workshops held; Mechanisms for interagency coordination and cofinancing of works and maintenance implemented and in operation through agreements between the central government and the subnational governments; Technical, environmental, and social regulatory framework for local road management established in the Operating Manual and implemented, including planning, studies, works, maintenance, and operation of the roads; At least 320 employees of the subnational governments and the IGVP trained in the technical, environmental, social and financial aspects of the program and in its procurement procedures; 190 contracts for execution and supervision of works signed by the IGVP within the deadlines and resources 	<ul style="list-style-type: none"> Quarterly reports by the UCV; Program monitoring system; Bank mission reports; Periodic performance evaluation by an independent consultant. 	

Objective	Indicators	Means of Verification	Assumptions
	<p>established in the program Operating Manual and the respective annual operating plan (AOP);</p> <ul style="list-style-type: none"> 130 performance-based contracts signed for routine maintenance adapted to the geographical conditions in the area and each road's use, and supervisory mechanisms established and strengthened to verify the quality of the service performed. 		<p>to assume responsibility for decentralized road management through the IGVP.</p> <ul style="list-style-type: none"> The public and the subnational governments support the establishment of maintenance microenterprises. The communities are interested in participating and contributing resources.
<p>Activities:</p> <p><i>Contracting of works and consulting services for:</i></p> <ul style="list-style-type: none"> Repair of local and tertiary roads Routine maintenance of local and tertiary roads Repair of nonmotorized roads <p><i>Institutional strengthening</i></p> <ul style="list-style-type: none"> Establishment and training of IGVP Support for MEMV Technical and environmental regulations and respective manuals Participatory road planning Technical assistance for UCV Monitoring, supervision and evaluation 	<p>Input: budget by component</p> <p>US\$57.2 million</p> <p>US\$4 million</p> <p>US\$980,000</p> <p>US\$1.8 million</p> <p>US\$600,000</p> <p>US\$400,000</p> <p>US\$800,000</p> <p>US\$1.6 million</p> <p>US\$1.2 million</p>	<ul style="list-style-type: none"> Procurement plan for the program Annual operating plans Administrative and financial records of the program's computerized monitoring system Independent audits Progress reports Supervisory missions 	

ECUADOR
LOCAL ROADS PROGRAM (EC-0211)

PROCUREMENT PLAN (amounts in thousands of US\$)

CATEGORY OF EXPENDITURE	NO. CONTRACTS	FINANCING			METHOD
		IDB	WB/OTH.	TOTAL	
Works					
Repair of local roads (2,520 km)	160	15,241	27,095	42,336	LCB
Repair of secondary roads (530 km)	30	5,342	9,498	14,840	LCB
Repair of trails (500 km)	100	353	627	980	DC
Routine maintenance (5,400km)	190	835	3,215	4,050	DC
Consulting services					
Training for IGVP	19	180	320	500	LCB
Monitoring and supervision of IGVP	10	360	640	1,000	LCB
Technical assistance for UCV	5	270	480	750	LCB
Support for institutional management	5	266	474	740	LCB
Establishment, supervision, and consolidation of microenterprises	60	216	384	600	LCB
Technical and environmental regulations	1	54	96	150	LCB
Technical manuals	2	90	160	250	LCB
Support for road planning	8	288	512	800	LCB
Training for small contractors and consultants	18	180	320	500	LCB
Environmental technical audit	1	54	96	150	LCB
Impact assessment	4	144	256	400	LCB
Administrative and financial information systems	2	72	128	200	LCB
Program monitoring and supervision	3	158	282	440	LCB
Technical studies on roads (2,900 km)	190	1,871	3,326	5,197	LCB
Technical studies on trails (500km)	25	126	224	350	DC
Supervision of works	190	1,647	2,927	4,574	LCB
Financial and operational audit	1	200	248	448	ICB
Procurement of goods					
Vehicles	2	27	48	75	PQ
Computer hardware and software	4	135	240	375	PQ

ICB: international competitive bidding; LCB: local competitive bidding
DC: direct contracting; PQ: price-quotations

LOCAL ROADS PROGRAM (EC-0211)

COST AND FINANCING TABLE **(FIGURES IN THOUSAND OF US\$)**

Component		TOTAL	IDB	WB	Govt. of Ecuador	GS
1.0	Repair and maintenance^{1/}	62,206	21,771	21,771		18,664
1.1	Local roads (2,520 km)	42,336	15,241	15,241		11,854
1.2	Tertiary roads (530 km)	14,840	5,342	5,342		4,155
1.3	Repair of trails (500 km)	980	353	353		274
1.4	Routine maintenance	4,050	835	835		2,380
2.0	Institution strengthening	6,930	2,495	2,495	1,940	
2.1	Establishment and supervision of IGVPs	1,800	648	648	504	
2.1.1	Technical, economic, financial and environmental training	500	180	180	140	
2.1.2	Support and institutional supervision	1,000	360	360	280	
2.1.3	Equipment (computer hardware and software for IGVP)	300	108	108	84	
2.2	Technical assistance for UCV	1,640	590	590	459	
2.2.1	Technical assistance	750	270	270	210	
2.2.2	Support for institutional management	740	266	266	207	
2.2.3	Equipment (computers, software, and vehicles)	150	54	54	42	
2.3	Establishment and consolidation of MEMV	600	216	216	168	
2.4	Technical and environmental regulations	150	54	54	42	
2.5	Preparation of technical manuals	250	90	90	70	
2.6	Support for participatory road planning	800	288	288	224	
2.7	Training for small contractors and consultants	500	180	180	140	
2.8	Monitoring, supervision, and evaluation	1,190	428	428	333	
2.8.1	Technical and environmental audit	150	54	54	42	
2.8.2	Impact assessment	400	144	144	112	
2.8.3	Financial management information systems	200	72	72	56	
2.8.4	Monitoring and supervision	440	158	158	123	
3.0	Engineering and supervision	10,121	3,644	3,644		2,834
3.1	Economic, technical, and environmental studies (2,880 km)	5,197	1,871	1,871		1,455
3.2	Studies for repair of trails	350	126	126		98
3.3	Supervision of works	4,574	1,647	1,647		1,281
4.0	Program administration	8,276			5,000	3,276
5.0	External audit	448	200	200	48	
6.0	Cost escalation	4,419	1,890	1,590	247	992
7.0	Financial costs	300		300		
TOTAL		93,000	30,000	30,000	7,236	25,766
Percentage		100%	32%	32%	8%	28%

1/ Includes US\$1.7 million for mitigation of environmental impact