

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

(PE-0136)

EXECUTIVE SUMMARY

BORROWER AND GUARANTOR: Republic of Peru

EXECUTING AGENCY: Ministry of Transport, Communications, Housing and Construction

AMOUNT AND SOURCE:

IDB:	US\$ 90,000,000 (OC)
Cofinancing:	US\$ 90,000,000
Local counterpart funding:	US\$ 70,300,000
Total:	US\$250,300,000

FINANCIAL TERMS AND CONDITIONS:

Amortization period:	25 years
Disbursement period:	4 years
Initiation of works period:	3 1/2 years
Interest rate:	variable
Inspection and supervision:	1%
Credit fee:	0.75%

COFINANCING: The World Bank

OBJECTIVES: The overall purpose is to provide a well-integrated and reliable rural road system through rehabilitation and maintenance of rural roads and key links connecting to the primary road system. The specific objectives are to: (a) reduce transport costs and raise the reliability of vehicular access to expand markets for agricultural and non-farm products; (b) integrate poorly accessible zones with regional economic centers; (c) improve transport conditions in rural villages; (d) generate employment through the rehabilitation and maintenance of rural roads to mitigate rural poverty; and (e) build up institutional capacity and develop small and medium enterprises to manage, on a sustainable basis, the maintenance and upgrading of rural roads.

DESCRIPTION: To provide better rural roads service, the Project is structured as a four-year "time-slice" of investment and routine maintenance expenditures supported by institutional changes. The main components are: (i) rehabilitation of 7,500 km of rural roads; (ii) rehabilitation of 2,200 km of connecting secondary roads; (iii) routine maintenance of approximately 11,500 km; (iv) improvement of 140 km of village

streets; (v) improvement of non-motorized networks in 25 project areas; and (vi) promotion of small and medium contractors, and development of micro-enterprises systems for rural road maintenance.

The project would start in the six departments in the *sierra* region, which rank highest in terms of rural poverty, namely Ancash, Apurimac, Ayacucho, Cajamarca, Cusco and Huancavelica. In 1997, the project would be expanded to also cover another six departments, the next ones in terms of rural poverty: Huánuco, Junín, Pasco, Puno, San Martín and Madre de Dios.

**ENVIRONMENTAL
CLASSIFICATION:**

The Environmental Management Committee, at its meeting of January 5, 1995, classified this as a Category III operation. This committee discussed the Program's Environmental Report during its meeting of September 7, 1995.

BENEFITS:

The project will benefit the poorest rural communities located in the *sierra* region. The potential number of beneficiaries is the 4.5 million inhabitants comprising the rural population of the departments targeted under the project. They will benefit from lower transportation costs for their products to the markets and increased access to health and educational services; improved road reliability should increase their income earning capacity.

Small enterprises and community groups will be formed and/or strengthened as a result of involvement in the execution of the works financed by the project. This will improve the skills of workers who will be employed, and enhance corporate competitiveness of the small firms that will carry out the works by developing their capacity to respond to increased opportunities for sustained employment after project completion. Since most of the contractors have been working on a sporadic informal basis, the project will contribute to helping them achieve a transition from the informal to the formal sector. Furthermore, municipalities involved in the project will benefit from investment and institutional strengthening.

RISKS:

The main risks focus on: i) uncertainty in the development of the decentralization agenda. It is of the essence that Government complete its decentralization agenda, with a clear definition of roles and a balanced distribution of responsibilities and funding for sustainable road maintenance; ii) a weak institutional base at the local level. The

weakness of municipalities could hinder the extent of the impact of the institutional strengthening component of the project; (iii) insufficient absorptive capacity of the domestic construction industry to properly rehabilitate and maintain low volume rural roads. The project targets small and medium-size enterprises which may adapt more easily to the working environment of municipalities, and provides technical assistance to further strengthen their managerial and technical skills; and (iv) inadequate provision of counterpart funds for project implementation. The project will require advance deposit of counterpart funds into the project account. The risks to the project of delays in the general decentralization process are mitigated through the use of an execution unit which operates at the central government level and is vested with critical execution and fiscal controls; this would allow the project to be implemented on schedule, if there were delays in decentralizing rural road maintenance. This execution unit, which will remain active until the loan is fully disbursed, has proved itself in prior Bank programs as well as in the rural roads Pilot Program (a small-scale project to test the design structure of the rural road program).

The risks of poor road maintenance due to delays in the general decentralization process or insufficient funding at the local level is mitigated by a special agreement with the central government which sets out annual maintenance targets, and provision for their funding from the government's own resources; further commitments under the physical works component will be tied to satisfactory compliance with such targets (paragraph 3.28).

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

This Project is consistent with the Bank's strategy of strengthening the decentralization process, poverty alleviation and support of the rural poor, modernization of the economic infrastructure, including transport infrastructure and promotion of agriculture and sustainable development.

**POVERTY TARGETED
INVESTMENTS**

The project qualifies as Poverty Targeted Investments because it will benefit (i) the poor in specific geographic areas since works selection criteria give priority to the poorest rural communities located in the sierra region, and (ii) lower income groups, since the average annual income is below the poverty line drawn by the Bank (US\$536 vs. US\$1,312 respectively).

**SPECIAL
CONTRACTUAL
CONDITIONS:**

Conditions prior to first disbursement:

1. The Borrower must have established the special accounts to receive the resources of the Financing (paragraph 3.40); and
2. The Project Operational Manual agreed upon with the Bank must have become effective (paragraph 3.8).

Other special contractual conditions:

1. No later than March 31, 1996, PERT-PCR must contract the consultants responsible for: (i) technical assistance to PERT-PCR; (ii) the biannual performance audits; and (iii) promotion of microenterprises and community organizations (paragraphs 3.19 and 3.22);
2. No later than December 31, 1996, PERT-PCR must initiate the studies on rural roads administration practices and financing. It must present a corresponding action plan and implementation schedule by March 31, 1998 (paragraph 3.21);
3. Not later than July 31 of each year of project execution the Borrower shall present for the Bank's approval the proposed annual implementation plan, and a proposed budget for each component of the project during the upcoming year (paragraph 3.17);
4. Prior to the first disbursement corresponding to the first contract administered by each deconcentrated executing unit ("UED"), PERT-PCR must have established, and provided them with adequate staff and equipment (paragraph 3.20);
5. Civil works valued at less than US\$250,000 shall be contracted by short list procedures; civil works valued at less than US\$50,000 shall be contracted by direct contracting. Up to US\$4,500,000 of counterpart resources for civil works may be executed by force account. Contracting procedures for civil works valued at less than US\$1,000,000 shall be subject to ex-post review by the Bank. Consultant contracting procedures for consulting firms and individual consultants valued at less than US\$100,000 and US\$50,000, respectively, shall be subject to ex-post review by the Bank (paragraphs 3.33, 3.34 and 3.37);

6. The Bank shall retroactively finance up to US\$9,000,000 in expenses incurred in the execution of civil works and consulting services. The Bank shall also recognize up to US\$7,000,000 in counterpart resources in connection with expenses incurred in the execution of the civil works and consulting services (paragraph 3.48);
7. Due to the large number of small projects, disbursements for civil works valued at less than US\$1,000,000 and consulting contracts valued at less than US\$100,000 shall be made against statements of expenses. Documentation supporting these statements shall be maintained by the PERT/PCR and be available to the Bank upon request (paragraphs 3.37 and 3.45);
8. MTC shall undertake bi-annual performance audits to review physical accomplishments, including quality and cost of the works, compliance with eligibility criteria, procurement, disbursement and environmental procedures set forth in the Project Operational Manual, and achievement of the performance indicators (paragraph 3.24);
9. MTC will present to the Bank for approval, not later than September 1996, the Environmental Manual (paragraph 3.8);
10. MTC shall furnish the Bank progress reports on a quarterly basis, within one month from the end of each quarter (paragraph 3.25);
11. MTC through PERT-PCR will conduct bi-annual project reviews in the months of May and November of each year of project execution with WB and the Bank. In the event of unsatisfactory progress, Government will prepare remedial action plans satisfactory to Bank and the WB within two months of the review (paragraphs 3.26 and 3.27);
12. MTC shall furnish the Bank annual maintenance reports of all rehabilitated roads under the project, during a period of 3 years after project's completion. This reports shall include evidence that total annual budget for rural roads maintenance of all responsible institutions (DGC, PERT-PCR, municipalities, etc.) is not less than: for 1996, US\$5 million; for 1997, US\$7.5 million; for 1998 and subsequent years, US\$10 million (paragraph 3.28);

13. MTC, will conduct an ex-post evaluation of the project (paragraph 3.29);
14. Government will contract independent auditors, acceptable to WB and the Bank, to annually audit the project, during the execution period, starting in 1995; their report will be submitted to the Bank within six months after the close of the Government's fiscal year (paragraph 3.47).

The threshold above which procurement will be subject to international competitive bidding is US\$250,000 for services and goods and US\$3,000,000 for civil works (paragraphs 3.32 and 3.35).

I. FRAMEWORK

A. The economic setting

- 1.1 Peru has undergone a remarkable recovery since the inauguration of the Fujimori administration in July 1990 which implemented the most comprehensive program of economic reforms in the history of the country. The reforms aimed at reducing inflation, stabilizing the economy and radically changing the state-dominated economy into a market-oriented one. There has been a steady drop in the rate of inflation; the economy has recovered strongly growing by 10% in 1994; and there has been enormous progress in reducing terrorism and establishing public order.
- 1.2 The economic recovery has resulted in welfare increases for the vast majority of Peruvians. In the short term, however, the benefits have not reached the poor to a sufficient degree. Government priorities have increasingly shifted towards enhancing the access of poor communities to mainstream economic activities by reversing the deterioration of basic infrastructure after years of neglect. The Government is rehabilitating basic infrastructure concentrating on areas with the highest prevalence of extreme poverty, the rural *sierra* and the urban *pueblos jóvenes*.

B. Rural development and poverty in Peru

- 1.3 Almost 30% of Peru's population live in rural areas. The prevalence of poverty is highest in the rural mountainous areas, where two thirds of the households are poor and 47% fall into the extreme poverty category. The recent decline in poverty levels has been attributed to the recovery of the economy together with the implementation of various social programs. The rural *sierra* is estimated to contain the largest number of extremely poor (about 1.6 million people). The more modest impact on poverty reduction to date in the rural *sierra* reflects the depth of economic stagnation in rural Peru.

C. Government strategy for rural development and poverty eradication

- 1.4 The Government's poverty alleviation strategy is focused on the promotion of broad-based economic growth and improvement in the living conditions of the extreme poor through the National Fund for Social Compensation and Development (FONCODES), as well as through social programs coordinated through the Ministries of Health and Education. FONCODES concentrates particularly in the rural *sierra*.
- 1.5 This strategy is switching to a longer term view toward broad-based growth as the key to poverty reduction efforts. Other essential elements include increasing the efficiency of public sector service provision, ensuring that programs are environmentally sustainable, and reaching the indigenous population and the large informal sector. In addition, the role of the private sector in infrastructure and social service provision will be clarified.

D. The road transport sector

1. The road sector

- 1.6 Road transport is the dominant mode of domestic transport. Yet Peru has the lowest endowment in road infrastructure compared to peer countries in Latin America. Reflecting a dramatic declining trend, the percentage of government expenditures dedicated to the transport sector decreased from 6.1% in 1981 to 2.5% in 1990. Since 1991, investments have grown in increments, reaching a level of US\$370 million in 1994, largely fueled by the multilateral and bilateral-financed programs of highway rehabilitation.

2. Road network

- 1.7 The road network comprises about 70,000 km of roads of which 11% are paved roads, 19% are gravel roads, while the remaining 70% are earth and non-engineered roads. This road network is organized into three tiers consisting of (i) 16,000 km of national roads, (ii) 14,000 km of secondary or departmental roads, and (iii) 40,000 km of rural roads. While the condition of the national network has improved since 1990 as a result of on-going rehabilitation and maintenance programs supported by the Bank, WB and other donors, conditions on the secondary and rural networks remain critical. The poor reliability of these roads also negatively affects the cost of road usage. The lack of all weather roads coupled with poor maintenance practices and adverse topographical and climatic conditions, render large segments of the rural road network impassable or very costly to users. This has impeded development and contributed to the isolation of poor rural communities, particularly in the mountainous *sierra*.

E. Rural road sector issues

1. Institutional organization

- 1.8 Responsibility for construction, improvement and maintenance of roads other than the national highways is not clearly defined and those outlined in the existing legislation have never been matched by the resources and authority necessary to fulfill the designated functions. Furthermore, the present circumstances are characterized by ambiguity and overlap in roles and responsibilities between all levels and by inter-government fiscal and financial arrangements that encourage dependency, conflict and the avoidance of accountability.
- 1.9 These circumstances, in which "legal ownership" of rural roads is clearly established, but "real ownership" is lacking due to absence of appropriate technical, managerial and financial capabilities on the part of municipalities, drive the Government to act in this area on behalf of municipalities in order to avoid economic and social problems.

- 1.10 While it is recognized it will take time to address the variety of issues arising from the incipient decentralization process, the proposed project would provide a venue to sustain dialogue on the key policies in the rural roads sector. It will help the Ministry of Transport, Communications, Housing and Construction (MTC) review the current functional classification of roads and clarify the responsibilities of the organizations in charge of each network, taking into account their constitutional and legal responsibilities as well as capacity to assume these responsibilities.

2. Highway and rural road financing

- 1.11 Currently, road users are taxed on the consumption of automotive fuels, license registration fees, and tolls on several major national roads. In 1993, these taxes generated about US\$650 million or 16% of total central government revenues. Revenues collected through tolls amounted to approximately US\$16 million in 1994 while license registration fees, mostly collected by municipal governments, are negligible. With an annual budget of some US\$370 million for road transport projects, user charges would cover the maintenance and rehabilitation costs of existing infrastructure. However, tax revenues are incorporated into the general central treasury (or municipal treasury in the case of registration taxes) and only toll revenues are directly collected and managed by MTC. As most of the revenues are collected by the central government, local entities depend on transfers to be able to finance their responsibilities in road transport.
- 1.12 For most municipalities, a principal source of revenue is the Municipal Compensation Fund (MCF). The MCF is financed from a 2% surcharge (equal to approximately 10% of the receipts) on the national Value Added Tax, along with an 8% share of the gasoline tax and with two other minor revenue sources. The poorest municipalities depend upon the transfers for 80% of their revenues, clearly lacking the capacity to raise funds locally to any meaningful extent.
- 1.13 The resources available to local governments are very limited. Local governments largely depend on a centrally controlled property tax and on intergovernmental transfers. Most of these transfers are allocated through the MCF, which gives roughly US\$300 million per year to provincial and district municipalities on the basis of population and infant mortality. About 80% of these funds are earmarked for capital investments which exclude road maintenance. Rural roads will remain poorly maintained as long as the local governments have no appropriate revenue sources. The issue of securing the flow of funds for maintenance is being addressed in the context of the reorganization of the sector.

F. Government strategy

- 1.14 The Government aims at implementing a wide-ranging program of rural roads rehabilitation in order to improve the quality of life in

rural areas, enhance their accessibility to markets, promote the return of the peasant population, and, generally activate the rural economy. The long term goal is to progressively rehabilitate the entire 40,000 km of the rural network. To begin with, the Government has designed a six-year rural road program (1995-2000) that targets more than 30% of the rural roads network, with priorities established on the basis of rural population, poverty indicators, existence of parallel programs of social stabilization, and participation of the local population.

- 1.15 The deteriorated condition of the secondary and rural road networks calls for a two-part strategy: (i) an extensive rehabilitation program to bring roads up to a condition where they can be maintained; and (ii) a maintenance program, which will cover the "core" road network and progressively extend to other road links until the entire road system is subject to routine maintenance. To maximize the impact of the former, investment planning and programming needs to be improved by setting prioritization criteria with economic and social factors clearly incorporated into them. For the latter to succeed, its implementation arrangements must be tailored to the capacity of the implementing agencies. The project supports this strategy.

G. Previous bank and other donors experience in the transport sector

1. The Inter-American Development Bank

- 1.16 In the period 1961 to 1989 the Bank loaned US\$150 million in the Transport and Communications sector. In the 1990's it approved two road rehabilitation loans totaling US\$462 million. The first, in 1991, is a loan of US\$210 million for the Highway Repair and Maintenance project (Loan 651/OC-PE). The executing agency for this project is the MTC. The loan funds are totally committed and it is expected that disbursement will be completed by the first semester of 1996. This project has shown success in its implementation, thus encouraging the realization of a new phase.
- 1.17 The second, in 1994, is a loan of US\$252 million for the Highway Rehabilitation and Improvement program, Phase II (Loan 836/OC-PE). The total project cost is US\$420 million with the remainder being financed by the Government (no cofinanciers). The Government complied with conditions prior to first disbursement in May 19, 1995. Currently, it is preparing documentation to justify the advance payment of 10% of the loan amount. Within the context of the loan, the MTC has taken several measures regarding the management of highways being rehabilitated under Bank financing; (i) the MTC has prepared bidding documents, satisfactory to the Bank, to privatize road maintenance through the toll system, including weight control in charge of the concessionaires; and (ii) by the end of this year, it is expected that the recommendations of a study funded by loan 651/OC-PE, regarding heavy vehicles policy and weight control will be well under way, with four weigh stations operating and seven additional ones to be opened in early 1996.

2. Overview of World Bank experience and other donors

- 1.18 The WB resumed lending operations in 1994, making a loan of US\$150 million for the Transport Rehabilitation Project. In 1995, the WB will be approving joint financing with the Bank for this project for an amount of US\$90 million. Both Banks have worked closely on the development of this project.
- 1.19 Other important donors are: (i) Kreditanstalt fur Wiederaufbau (KfW); (ii) the Overseas Economic Cooperation Fund (OECF) - Japanese ODA; (iii) OPEC Fund for International Development (OPEC); and (iv) United States Agency for International Development (USAID).

II. THE PROJECT

A. Project objectives

- 2.1 The overall purpose is to provide a well-integrated and reliable rural road system through rehabilitation and maintenance of rural roads and key links connecting to the primary road system. This will help alleviate rural poverty and raise living standards of rural communities through increased access to basic social, economic and income-generating activities. The specific objectives are to: (i) reduce transport costs and raise the reliability of vehicular access to expand markets for agricultural and non-farm products; (ii) integrate poorly accessible zones with regional economic centers; (iii) improve transport conditions in rural villages; (iv) generate employment through the rehabilitation and maintenance of rural roads to mitigate rural poverty; and (v) build up institutional capacity and develop small and medium enterprises to manage, on a sustainable basis, the maintenance and upgrading of rural roads.

B. Project description

- 2.2 The project will support the first phase of the Government's six-year program designed to improve transport conditions between rural communities and production and consumption centers. WB and the Bank will jointly finance the investments planned under the project with the same project eligibility criteria, set in the Project's Operation Manual.
- 2.3 The size of the project was established taking into consideration the needs of the target area, the financial capabilities of the government and the capacity of the small local construction industry to execute the works. The availability of consulting firms capable of delivering technical and institutional assistance to local governments was also a consideration.
- 2.4 Due to the resulting size of the project and the history of inactivity in the rural roads sector, MTC developed a Pilot Plan (currently under execution) to establish the technical, socio-economic and cost information needed to design the project. For this task, MTC counted with the experience of an international consulting firm, financed by the WB. The experience gained so far has confirmed the validity of the assumptions and data. This Plan comprises the rehabilitation of 1,500 km of roads, technical studies of almost 2,900 km, part of them to be utilized within the first year program, with a total investment of approximately US\$30 million. The Pilot Plan will be partly subject of retroactive financing.
- 2.5 The project will start in the six departments in the *sierra* region chosen for the Pilot Plan, which rank highest in terms of rural

poverty, namely Ancash, Apurimac, Ayacucho, Cajamarca, Cuzco and Huancavelica. In 1997, the project will be expanded to cover the next six departments in terms of rural poverty: Huanuco, Junin, Pasco, Puno, San Martin and Madre de Dios (with start-up of works in the latter two scheduled for 1998). This staged-approach will give an opportunity to immediately apply lessons learned from the Pilot Plan and during the first year of project implementation to the additional departments incorporated into the project. The 12 departments selected, out of a total of 24, account for about 61% of the rural road network in Peru. They cover most of the *sierra* region, and some departments, also areas of piedmont (*Ceja de Selva*).

- 2.6 The project comprises the following components: rehabilitation and maintenance of rural and connecting secondary roads, improvement of village streets, improvement of non-motorized rural transport and institutional development.

1. Rehabilitation of rural roads

- 2.7 This component will finance rehabilitation of about 7,500 km of the classified rural road network to improve accessibility and help reduce its overall deterioration. Though poorly engineered, these one-lane roads have geometric standards reasonably adapted to the terrain and the low level of traffic they serve. The proposed works will concentrate on eliminating critical sections and spot improvements to ensure adequate transitivity and a level of access tailored to the specific transport needs of the local communities. Through spot rehabilitation, access is substantially improved at a low cost, in terms of transport time required and accessibility during the rainy season. This will entail correcting the surfaces with limited regravelling to provide a more durable running surface over poor soils and on steep gradients, removing landslides, and constructing retaining walls and additional drainage and erosion control structures. To obtain long-term benefits, spot improvements will be followed by an effective road maintenance program.

2. Rehabilitation of connecting secondary roads

- 2.8 This component will finance rehabilitation of secondary roads that are directly connected and give access to the feeder roads systems under rehabilitation. These are unpaved roads carrying traffic in the range of 50 to 200 vehicles per day. About 2,200 km of secondary roads will be rehabilitated through the project. The rehabilitation works envisaged aim at restoring year-round trafficability and will include such works as regravelling, grading, bridge replacing, slope protection and drainage system repairs.

3. Routine maintenance of rural and connecting secondary roads component

- 2.9 This component aims at setting up a routine maintenance system. Innovative cost-effective schemes based on contracting out labor-intensive works to micro-entrepreneurs or local cooperatives, and equipment-intensive works to small and medium contractors, will be introduced. Present capacity of the public sector is limited. Involving communities and developing small local contractors will increase capacity and build pressure over local governments for continuous road maintenance. The strategy pursued is that the rural road network first must receive rehabilitation in critical sections (spot improvements) before maintenance activities begin. Subsequent routine road maintenance will consist of simple works regularly performed throughout the year to maintain the drainage systems (ditches, culverts, vegetation) and the running surface (filling potholes and ruts, maintaining the surface camber). The project will basically finance routine maintenance of those roads rehabilitated during project implementation, but other roads could be included if local governments commit themselves to supporting these activities.

4. Improvement of village streets component

- 2.10 Villages and small towns with populations of up to approximately 2,000 inhabitants do not classify as "urban" and are often neglected in "rural" transport programs. Despite servicing a high number of beneficiaries, road infrastructure in such villages is rarely planned for, and is often developed in an *ad-hoc* manner. This component will finance street improvements in small rural communities to enhance environmental conditions and raise living standards by upgrading the section of the rural road crossing a village. The works will remain simple and appropriate for labor-based construction methods. Special consideration will be assigned to safety issues, particularly signalling, speed limits and speed bumps if needed, and adequate space to accommodate pedestrian traffic.

5. Improvement of non-motorized rural transport component

- 2.11 Improvement of accessibility and mobility of rural areas must take into account the unclassified network of tracks and footpaths that service the transport needs of the rural poorest and poor women in particular. Mobility needs in rural areas are often met by Non-motorized transport (NMT) modes, even on classified roads. Widespread use of non-motorized vehicles (bicycles, tricycles) and animals is both hampered by the poor condition of rural transport infrastructure (compounded by difficult terrain conditions). Certain remote *anexos* and *caserios* are not serviced by the classified rural road network but by tracks and paths that connect them to the closest village or municipal district.

- 2.12 This component will finance (i) technical assistance for village-level infrastructure management, and (ii) physical works aimed at removing unsafe spots and other bottlenecks constraining the use of the intermediary means of transport. The project will finance the cost of materials, equipment and skilled labor, while most of the unskilled labor will be contributed by the community. The community will be determinant in the selection, planning, implementation and financing of the proposed works.

6. Institutional development component

- 2.13 This component consists of: (i) technical assistance to improve planning and management of rural roads at the national and local levels. This technical assistance will be supported by two policy and institutional studies on local road administration practices and rural road financing; (ii) technical assistance to develop micro-enterprises for execution of routine maintenance using work methods tailored to the institutional and financial capacity of rural municipalities; and (iii) a package of technical assistance and training services to strengthen the local road construction industry, to be offered to local contractors and micro-enterprises who will be awarded contracts under the road rehabilitation components, and on-the-job training to local engineering firms and beneficiaries on the preparation of feasibility studies and technical project proposals.
- 2.14 The first subcomponent comprises: (i) strengthen MTC's capacity for formulating and reviewing rural roads policy, programming investments, and monitoring performance of the rural transport system; (ii) support, during project execution, of PERT-PCR's reviewing of investment programs and quality of studies produced by consultants, ensuring consistent application of the Project Operational Manual, improving the Manual based on feedback from project implementation, assisting in evaluating performance of UEDs and developing the institutional development components; and (iii) strengthen the provinces and district municipalities' capacity to plan and carry out rural roads maintenance. Municipalities in the project area will be required to participate in the technical assistance program, which will be tailored to their size, structure and complexity.
- 2.15 The second subcomponent contemplates developing micro-enterprises to supply routine and emergency maintenance of rural roads (with possibly larger firms supplying specialized equipment and know-how for more complex works). The project will finance: (i) promotion of microenterprises among the communities and base organizations; (ii) assisting microenterprises throughout their constitution, including legal and technical advice; and (iii) supporting a dissemination campaign among local governments to sensitize them about the benefits of the micro-enterprise program. In developing this sub-component, a major role will be played by UEDs and NGOs or local firms to be contracted out to promote and implement it.

- 2.16 The third subcomponent aims at increasing the technical and managerial capacity of small- and medium-scale local firms in the road construction and maintenance trades. Most firms in the target group are expected to show weaknesses, in terms of management, work organization, and technical skills, which might jeopardize the successful implementation of the sub-projects that they will be commissioned to carry out. The provision of some technical assistance to contractors is deemed an effective way of addressing this risk and provide a basis for long-term development of the local construction industry.

7. Logical framework

- 2.17 The logical framework of the project as well as the program it supports, with key indicators and physical targets by component, is included as Annex 1.

C. Environmental assessment

- 2.18 The project supports rehabilitation and maintenance of existing unpaved rural and departmental roads, and therefore, the risk of additional indirect negative impact associated with human activities (i.e. colonization, deforestation) is limited and the proposed project activities are unlikely to harm the ecological and social environment. The more significant environmental concerns related to the existing targeted road network are erosion and flooding of farmlands and road surfaces. By its very nature, the strategy adopted will have a positive impact on the environment since it will focus mainly on identifying and offsetting erosion problems.
- 2.19 Furthermore, the project will assist MTC and local governments in developing and implementing a sound strategy for environmental management of rural road projects. The Project Operational Manual will set environmental guidelines concerning the following issues: (i) environmental feasibility criteria to be applied to projects at their preliminary identification; (ii) guidelines and procedures for environmental impact analysis and design of preventive and corrective measures, focusing on preparation of Environmental Management Plans; and (iii) technical specifications for work execution, with clear provisions to ensure that work methods are environmentally sound.
- 2.20 All roads to be rehabilitated will have final engineering studies, including general and particular environmental specifications to be included in bidding documents. All these issues will be included in the environmental manual to be prepared by PERT-PCR.

D. Project costs and financing

1. Project costs

- 2.21 The total project cost is estimated at US\$250 million. Base costs are in January 1995 prices. Physical contingencies were calculated at 10% of base costs. Price contingencies were calculated at an annual rate of 2.7%. This escalation rate was applied to both local and international prices, which implies that the exchange rate is periodically adjusted to reflect the difference between internal inflation and the evolution of world prices.
- 2.22 The costs of civil works are based on work quantities determined from field surveys and engineering designs prepared by local consultants for the Pilot. The unit prices used in the project are slightly higher than those calculated by the consultants and obtained from bids already received under the Pilot, in anticipation of a possible increase of unit costs with the acceleration of construction activity in the project area.

2. Project financing

- 2.23 The proposed Bank loan of US\$90 million will finance about 36% of the total cost of the project. WB will provide joint financing through a loan of US\$90 million. The Government requested this joint financing as opposed to parallel cofinancing to simplify project administration. This is feasible considering that (i) both Banks are financing the same components under same arrangements, and (ii) no international procurement is envisaged as the small size of the contracts is unlikely to attract contractors from outside the region. The Government will provide approximately US\$70.3 million for project implementation, of which about US\$38.2 million are generated from taxes. A detailed financial plan by component is attached as Annex 2.

III. PROJECT IMPLEMENTATION

A. Project organization and management

1. Operational set-up

- 3.1 Although MTC will have overall responsibility for project coordination and implementation, it lacks the capacity to directly manage a large rural roads project. Actual implementation will be delegated to a specialized unit, the Proyecto Especial de Rehabilitación del Transporte - Programa de Caminos Rurales (PERT-PCR). With staff and budget separated from the rest of the Ministry, the unit enjoys ample technical, administrative and financial autonomy. Deconcentrated executing units (UEDs) will be established in the departments where the project will be executed.
- 3.2 A three-layer organization will monitor project execution, decentralizing responsibilities, and incorporating the participation of municipalities and communities, as follows:
- a. PERT-PCR's central unit will be responsible for general project management. This will entail (i) establishing indicative budgetary allocations and investment programs, (ii) designing and coordinating the institutional strengthening component, (iii) issuing implementation guidelines (through the Operational Manual), (iv) channeling project funds to the deconcentrated units, (v) introducing and maintaining the project *ex-post* monitoring system, (vi) auditing performance of deconcentrated units, (vii) preparing progress reports, processing disbursement requests, and managing the Special Account, and (viii) coordinating with other governmental agencies.
 - b. The deconcentrated executing units (UEDs), will be responsible for managing the work programs. This will entail (i) promoting the project among, and entering into agreements (*convenios*) with municipalities and communities, (ii) coordinating with other decentralized agencies their rural development and poverty alleviation programs, (iii) defining and programming investments in consultation with the municipalities, (iv) engaging consultants and NGOs for engineering studies, supervision of works and delivery of institutional components, (v) tendering contracts for works, (vi) administering contracts and *convenios*, and (vii) monitoring and reporting implementation of the various project components.
 - a. Municipalities and communities will participate in: (i) identifying sub-projects and coordinating with UEDs the investment programs, (ii) contributing to the cost of the works (financially or with free labor) for community-managed components, (iii) directly executing the works through *convenios* or providing unskilled paid-for labor for works let

to contractors, and iv) overseeing the delivery of programs and reporting any difficulties in project implementation.

- 3.3 With assistance from UEDs, provincial municipalities are expected to prepare, in consultation with their districts, transport plans documenting the actions agreed upon to improve the condition of transport services in their constituencies, as required under the Municipal Law. MTC through PERT-PCR will enter into inter-administrative 'participation agreements' with the municipalities with jurisdiction over project areas (though the agreements will be structured on the basis of provinces, all districts within the province will be required to sign in).
- 3.4 To provide better rural roads service, the Project is structured as a four-year "time-slice" of investment and routine maintenance expenditures supported by institutional changes. PERT-PCR will be MTC's main executing agency for the rural road sector, with a minor role in charge of DGC. In the case that the latter agency is involved in rural road rehabilitation, it will coordinate its activities with PERT-PCR; technical standards and procedures applied will be compatible with those of PERT-PCR. The overall sector investment program is determined by the MTC, with both IDB and WB having an active role in establishing the investment levels for the rural road sector, the assignment of roads to each agency (DGC and PERT-PCR) and the resulting allocation of funds.

2. Coordination with other development initiatives

- 3.5 At the central level, MTC will be responsible for coordinating with MEF and the Ministries of Presidency (FONCODES, INADE) and Agriculture all aspects regarding the Government's poverty alleviation strategy and the allocation of funds. Several meetings had been held with both agencies and a preliminary agreement reached with FONCODES. This agency has exchanged with PERT-PCR its data base identifying its rural roads projects. Preliminary agreements have been reached under which PERT-PCR will establish technical standards which will be applied by these agencies in areas where the project will not be active.
- 3.6 To ensure effective coordination of efforts, the UEDs will promote the establishment of regional inter-institutional committees that will be responsible for further promoting the project, reviewing the list of proposed works, and provide information about other programs/projects in the vicinities of the proposed works.
- 3.7 UED's implementation strategy, personnel selection and staffing, professional profile, etc., will be included in the corresponding "Functional and Organizational Manual" that integrates the Manual of Operations. Cusco's UED has already been created and two additional UEDs will be functioning by the end of this year.

3. The project operational manual

- 3.8 In order to ensure implementation consistency, PERT-PCR will use a Project Operational Manual that will clearly define the guidelines and procedures to be followed by the UEDs in project execution. MTC, assisted by consultants, is finalizing the manual. The format and content of the manual will be agreed upon at negotiations and its adoption by PERT-PCR will be a condition of first disbursement. Adherence to the manual will be assessed every six months by external consultants engaged for the performance audit of PERT-PCR and its UEDs. This manual will include an Environmental Manual that should be presented to Bank's approval no later than September, 1996.

B. Selection and programming of investments

1. Participatory process in sub-project generation

- 3.9 Projects of the pilot plan and first-year program were selected on the basis of poverty criteria among rural roads located in the poorest provinces of the six poorest departments in the country. This means that, although complying with the eligibility criteria, those projects were selected mainly because of their location in extremely poor areas. Subsequent projects (second year and further programs) will mainly be generated by the communities themselves upon request to the UEDs. The objectives and components of the project will be disseminated through municipalities and local NGOs, which can forward their requests to the UEDs and/or the inter-institutional committees. UEDs will initiate the necessary technical support for collection of the information required to assess eligibility of the prospective project and to define its technical specifications. Upon project approval, the pertinent works will be procured under the rules specified in the Project Operational Manual.

2. Eligibility criteria

- 3.10 In Peru, where two thirds of the rural population is poor or extremely poor, investments in rural roads have a strong social policy purpose. Accordingly, the Project emphasizes social factors in the criteria for project selection. During this process, measures will be adopted to assure that each project complies with the Eighth Replenishment Poverty Targeted Mandate, and the technical and feasibility studies will assess the proportion of poor to total beneficiaries; a regional poverty index could be used.
- 3.11 Due to this social orientation and the major impact expected in rural development, and as a result of improved accessibility to social services (mainly health and education), as well as increased agricultural production and support for the return of the displaced population to its place of origin, several social criteria have

been incorporated in the Project's design, including a reimbursement period of 25 years for the proposed loan.

- 3.12 Four criteria constitute the vertebra for the eligibility assessment of projects. The institutional criteria refer to the level of identification the communities in the area of influence will have with a particular road project, including their commitment to the future maintenance of those roads. The technical criteria refer to the construction characteristics of the proposed sub-projects, the soundness of their environmental mitigation measures, and their functionality within the road network in the pertinent province or department.
- 3.13 The social criteria refer to the need to integrate the poorest areas into the mainstream economic activities and contribute to the alleviation of poverty through employment generation. All projects will be subjected to an economic analysis; when the Internal Economic Rate of Return (IERR) is higher than 10% the project will become eligible. 1/ If a project fails the EIRR test, a new design variant will be developed based on less costly design standards, and a new economic analysis performed. If the project still fails the economic test, it will be dropped from the investment program. However, these "uneconomic" road segments will still be eligible for modest routine maintenance, if the local communities are willing to actively participate in works.
- 3.14 Economic evaluation will not be carried out for low cost subprojects, i.e. works totalling less than US\$200,000 and US\$8,500/km. Instead, simple measures will be used based on the number of beneficiaries and their poverty level (as stated in the Operational Manual) and, if these thresholds are reached, the works will be performed. Experience gained while developing the Pilot Plan indicated that only one out of 25 subprojects was included within this category.

C. Implementation strategy

- 3.15 The first phase of the implementation strategy, consisted in the development of a Pilot Plan. Its main objective was gaining experience to establish the basic technical, administrative, socio-economic and cost information necessary to design the project. The Pilot Plan encompasses about 1,506 km of road rehabilitation within six departments, with an estimated cost of US\$33.1 million. Though implementation of the Pilot Plan is still underway, it has generally confirmed the validity of the assumptions and data used for project design.

1/The project uses a 10 per cent cut-off rate of return for individual road investments because the measurement methodology excludes a number of important benefit categories. For example, benefits associated with improved access to education and health services, agricultural extension, vehicle operating costs savings, are not quantified due to the excessive cost of information relative to the amounts invested in each road improvement project.

- 3.16 The first year program encompasses the rehabilitation of 1,600 km of rural roads and 500 km of connecting secondary roads (with technical studies currently being carried out and financed by a JSF grant), and 1,500 km of routine maintenance, most of it labor-based.
- 3.17 The general implementation arrangements establish that PERT-PCR will furnish the Bank for review and approval, the proposed annual investment plan providing for the activities in each project area, the respective justifications and implementation schedules, and proposed budget for each component of the project during the upcoming year, among other information.
- 3.18 The Project Operational Manual will establish guidelines, technical specifications and terms of reference for design and supervision of spot improvement and rehabilitation works. The use of the Manual will ensure consistency in the solutions proposed.
- 3.19 The technical assistance in rural roads planning and maintenance will be provided by an experienced consultant firm, with access to international experts; the hiring of this firm should be completed by March 31, 1996. It is expected that implementation of the technical assistance to develop microenterprises will be done primarily by Non-governmental organizations (NGOs) with actual experience in developing micro-enterprises for infrastructure maintenance. Municipalities will be exposed to the program, and their capacity to monitor results strengthened through performance evaluations carried out jointly with PERT-PCR.
- 3.20 Prior to delegating any project investment activities and corresponding disbursements to a new UED, PERT-PCR will furnish the Bank, for its approval, details regarding the organization, staffing and equipment of said UED.
- 3.21 To assure proper provision of technical and financial assistance to local governments, studies on rural roads administration practices and financing will be initiated no later than December 31, 1996. Once they are finished, Government should present an action plan for the implementation of the recommended actions of such studies, no later than March 31, 1998.

D. Monitoring, reporting and bank supervision

1. Monitoring

- 3.22 The monitoring of project implementation encompasses two levels. One consists of the reviews of project performance and annual plans that will be undertaken by PERT-PCR on a continuous basis; the other consists of performance audit exercises that will be carried out by an independent firm on a six-month basis. This firm should be contracted by March 31, 1996. PERT-PCR will establish performance monitoring indicators, to be included in the Manual of Operations, acceptable to the Bank, in order to measure the

efficiency and effectiveness of the UEDs in discharging the project. This technical audit firm will be of invaluable help to monitor the project's performance by the Bank.

- 3.23 The project will use an information system for monitoring the implementation of the large number of sub-projects scattered across the departments. The development of the system entails the creation of a data base and the procedures for capturing key technical, financial and social information for each sub-project.
- 3.24 Every six months, technical auditors acceptable to WB and the Bank will conduct a performance audit of the implementation of the project by examining a sample a sub-projects under execution by the UEDs. The technical audit will focus on the execution of the project physical components (quality and cost of works), procurement procedures, and compliance with the guidelines of the Project Operational Manual and the performance indicators.

2. Reporting

- 3.25 PERT-PCR will prepare quarterly progress reports for all components of the project. These will be submitted to the Bank within one month after the end of each quarter and will describe (i) progress achieved against agreed implementation indicators and disbursement schedules, (ii) updated implementation and disbursement schedules for the remainder of the project, (iii) status of compliance with the legal covenants contained in the Loan Agreement, and (iv) detailed work program and action plans for the coming two quarters.

3. Annual reviews and ex-post evaluation

- 3.26 At bi-annual intervals, during the months of may and november of each year of execution, the Bank, WB and the Government will conduct a formal joint review of the progress made in achieving project objectives and in implementing project components. Participants will include key representatives from the operating UEDs, pertinent consultants and NGOs involved in the technical assistance component, MTC, MEF, decentralized agencies involved in rural development programs, and a sample of beneficiaries.
- 3.27 The reviews will provide an opportunity to assess (i) progress in physical project implementation, (ii) the performance of PERT-PCR and each of its UEDs, (iii) the effectiveness of the civil works in terms of community and local government involvement, local contractors' response, coordination with other development programs, and achievement of project objectives, (iv) progress in the institutional development components, (v) the adequacy of the procedures stated in the Project Operational Manual, (vi) assessment of implementation of environmental criteria, (vii) impact on returning population, (viii) progress in restructuring and strengthening road maintenance administration and finance, and (ix) the justification of the investment and institutional

proposals submitted by each UEDs for implementation during the subsequent year. The project implementation schedule and monitoring indicators will be updated by mutual agreement during the annual review. PERT-PCR will furnish the Bank at least two weeks before arrival of the annual review mission, with a "review report" containing the agenda for the meeting, the current status with regard to the topics listed above and the annual plan proposed for the prospective year. In the event of unsatisfactory progress, the Government will prepare remedial action plans satisfactory to WB and the Bank within two months of the review.

- 3.28 One of the key performance criteria agreed with Government is assurance of an adequate maintenance program consistent with the objectives of the present project. As part of the IDB-WB performance review of the project, the Government must meet the annual fiscal targets for road maintenance set forth in the Loan Contract. The Government will submit evidence that total annual expenditures regarding rural roads maintenance for all responsible institutions (DGC, PERT-PCR, municipalities, etc.) is not less than: for 1996, US\$5 million; for 1997, US\$7.5 million; for 1998 and thereafter, US\$10 million. These levels of expenditures for maintenance are sufficient to maintain all roads rehabilitated under the Project in addition to all others rehabilitated by other agencies during the same period. PERT-PCR will submit to the Bank annual maintenance reports of all rehabilitated roads (including their bridges) under the project, no later than July 31 starting on the first year of project execution until 3 years after project completion.
- 3.29 These reports will provide comprehensive information on all major elements, permitting an evaluation on its accomplishments over the course of the preceding year. These reports and corresponding data will serve as the data base for the ex-post evaluation of the project, to be performed by MTC, focusing in the results of the major project's components (rehabilitation and road maintenance, institutional strengthening).

4. Project supervision

- 3.30 WB and the Bank will supervise the project through a shared project team. The respective task managers will coordinate the timing and composition of field missions. Their frequency will be guided by the progress and special requirements of project implementation. The missions are expected to supervise the project twice a year. However, the supervision plan calls for a greater involvement of the Country Offices.

E. Procurement

- 3.31 Procurement of works, services as well as the contracting of consultants with Bank funds will be carried out in accordance with Bank guidelines. Major purchases of goods is not envisioned.

1. Civil Works

- 3.32 International Competitive Bidding (ICB) will be required for any contract exceeding US\$3 million equivalent. National Competitive Bidding (NCB) procedures acceptable to the Bank will be used for work contracts above US\$250,000. Participation of contractors from foreign countries in NCB and ICB is very unlikely. However, the procurement advertisements and the bidding documents, will clearly state that participation of foreign firms from any country eligible under the Bank guidelines is not precluded, and that the financing will be secured by the Bank loan. Procurement of works under the above mentioned limits will follow national legislation procedures.
- 3.33 Works estimated to cost US\$250,000 equivalent or less per contract, will be procured under fixed price contracts awarded on the basis of quotations obtained from no less than three qualified domestic contractors in response to a written invitation. All bids received will be opened in public on a predetermined date to be stated in the bidding document. The award will be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to successfully complete the contract.
- 3.34 Procurement of small works estimated to cost less than US\$50,000 will be done through direct contracting of (i) *núcleos ejecutores* (which is a recognized entity formed by members of a community to support implementation of a specific investment in their area), and (ii) micro-enterprises for road maintenance developed under the project. The Manual of Operations will clearly state that, under these conditions, a single contractor will not handle more than three contracts simultaneously and that, in the aggregate, these contracts, to the named contractor, will not exceed US\$1,000,000 during project's life. In areas where contractors or *núcleos ejecutores* are not available, civil works may be executed by force account; in this case the Bank will recognize up to US\$4,500,000 as counterpart funds.
- 3.35 Procurement of goods will be mainly limited to the purchase of computer and office equipment and light trucks. ICB will be required for purchases above US\$250,000.

2. Consultant services

- 3.36 Consultants will be hired following the established procedures. The services include studies, engineering designs, construction supervision, technical assistance, training courses and auditing services.

3. Procurement review

- 3.37 For civil works, all bidding packages of US\$1.0 million or higher will be subject to prior review of advertising, bidding documents, bid evaluation and contract award; they will be handled directly by

PERT-PCR's central office. The first NCB bidding packages prepared by each UED, will also be subject to prior review. For consulting firms, services estimated to cost US\$100,000 or more, as well as all single-source assignments, will be subject to prior review of contracts, terms of reference, and selection procedures; for individual consultants, services of US\$50,000 or higher will be subject to prior review. For consultant services under the above limits only the terms of reference will be subject to prior review.

- 3.38 The expected low level of prior review will be compensated for in several ways: (i) external auditors will conduct performance audits every six months (covering technical, environmental, procurement, management and financial aspects); (ii) the project information and monitoring system will be used to compare costs of similar sub-projects within an executing unit and among units. Accuracy of the data in the project information system will be checked through the audits; and (iii) Bank and WB supervision missions and Country Offices will conduct random reviews, including frequent field visits and reviews of procurement documentation.

F. Bank accounts, disbursements, accounting and audits

- 3.39 The recommended financial system and cash management approach was developed to execute the project objectives and still retain financial and internal control over all funds committed to this investment program.

1. Special bank accounts

- 3.40 Three separate special accounts will be opened and maintained in a bank acceptable to the IDB, the WB and the GOP. These accounts shall be created prior to first disbursements. The GOP's special account is necessary in order to effectuate the transfer of matching funds to a "bridge-revolving" account (BRA), so as to implement without delays and bureaucratic complications the investment commitments under this project. Reconciliation of all transfers from the special accounts to the BRA will be made at PERT-PCR, and monthly, quarterly and yearly reports will be provided to each party.
- 3.41 The Bank's Special Account will have an authorized allocation, sufficient for about four months of financeable expenditures (about US\$9 million). The Bank will replenish the Special Account upon receipt of disbursement requests from the Borrower. PERT-PCR will control the use of the Special Account and be responsible for preparing disbursement requests on behalf of the Borrower. These requests should be submitted every month, or when the special account has been drawn down to 67% of its initial deposit, whichever comes first.

2. The local currency account: bridge-revolving account (BRA)

- 3.42 This account will be controlled by PERT-PCR. The BRA will be maintained in the same banking institution as the special accounts. Since this is a joint financing investment project, all transfers and disbursements from the special account shall be made in accordance with the pari-passu. The BRA will maintain the funds in local currency (Soles). This BRA will need to maintain some excess funds to operate as a revolving account so as to optimize cash management and eliminate delays on disbursements to contractors and consultants participating in this project.
- 3.43 The Government will deposit counterpart funds into the PERT-PCR's local currency account at the beginning of each month to cover the counterpart funds needed for all payments anticipated for that month. The local currency account was established in July 1995 to speed up the processing of payments in respect of the Pilot.

3. Record-keeping and disbursements control

- 3.44 All payments for work contracts and consulting services will be made by PERT-PCR under UEDs request. All of the pertinent financial information, including construction or maintenance contracts and agreements, agreements for services, invoices, progress billings, bills of sale, etc., will be approved by the UEDs manager and forwarded to PERT-PCR for review and approval before any payment is done. In essence, all of the financial accounting for transactions and disbursements to the UEDs during the execution and administration of the Program will be centrally controlled at the PERT-PCR to strengthen the internal financial control over the investment of funds and prevent mismanagement and misapplication of funds. All of the cash management and flow of funds, including reconciliation of all bank accounts within this banking arrangement, will be centrally controlled and independently audited.

4. Disbursements

- 3.45 Disbursement requests in respect of civil works contracts over US\$1.0 million, consultants contracts over US\$100,000, all single-source contracts will be fully documented. In all other cases, disbursements will be made against statements of expenses. These statements will be transmitted through PERT-PCR. Documentation supporting the statements will be retained at PERT-PCR and made available for examination by Bank staff during review missions or at any moment by the Country Office. Other technical and economic information regarding the sub-projects included in any disbursement request will also be readily available from the project data base.
- 3.46 Bank loan proceeds will be disbursed against the following percentages of eligible expenditures (between brackets, net of IGV tax): (i) 38.14% (45%) for civil works under the road rehabilitation and village components; (ii) 25.42% (30%) of

expenditure incurred before January 1, 1999 in respect of civil works under the road maintenance component and 16.95% (20%) thereafter; (iii) 42.37% (50%) for consultant services and training. Loan proceeds under the WB loan will be disbursed against same categories and disbursement percentages under joint cofinancing.

5. Audits

- 3.47 The Government will appoint independent auditors acceptable to WB and the Bank to audit the project, starting with the audit for 1995, in accordance with terms of reference acceptable to both Banks. Certified copies of the audit reports will be furnished to the Bank annually, during project execution, within six months of the closing of the Government's fiscal year.

6. Retroactive financing

- 3.48 The loan will finance retroactively eligible expenditures incurred under the Pilot Program, whose execution started in January 1995. Implementation of this pilot is being done in consultation with WB and the Bank, including a review by the Bank of all procurement actions. It is estimated that total payments made in respect of the contracts for civil works and consultants services will be around US\$9 million. 2/ The Bank shall recognize up to US\$7 million in counterpart resources.

7. Performance schedule

- 3.49 The execution period is 3.5 years. The proposed loan is expected to be fully disbursed in 4 years.

2/Project financing was requested on September 30, 1994.

IV. INSTITUTIONAL AND FINANCIAL ANALYSIS

A. The borrower and the executing agency

- 4.1 The Borrower will be the Republic of Peru and the Ministry of Transport, Communications, Housing and Construction will be the executing agency. Actual execution of the Project will be done, as is currently being carried out, by PERT-PCR, a semi-autonomous agency.

B. Institutional set-up

- 4.2 Road administration has gone through fundamental changes in the last decade, in part due to a protracted decentralization process which is still far from being settled. Departmental and rural roads receive insufficient attention from the various agencies falling under the jurisdiction of regional and local governments. A weak institutional base, ill-defined responsibilities, and strong dependence on central government budgetary allocations have prevented regional governments from delivering more responsive services and coordinating development programs.
- 4.3 The Municipal Law (*Ley Orgánica de Municipalidades*) passed in 1984 made provincial and district municipalities responsible for rural roads investment planning and maintenance. The Law establishes a distinction between provincial and district municipalities. However, functional assignments between them are ambiguous in as much as both types of municipalities are given largely the same set of responsibilities. Such responsibilities, however, are not commensurate with their institutional and financial capacity. This, compounded with ambiguities and overlaps in the roles of the different levels of government and inherited dependency from central government, results in a generalized avoidance of accountability in the sector.
- 4.4 Since January 1995, Government has embarked on a long-term effort to restructure road sector management to improve its efficiency and effectiveness, in a process that involves consultation with key government officials, representatives of the private sector, as well as WB, the Bank and GTZ. This started with a policy workshop to review the roles of the various levels of government and the private sector in road sector administration and development. At an operational level, Government is taking steps to:
- a. refocus MTC's mission on policy-making, investment planning, coordination among transport modes, road usage regulation, and monitoring transport system performance;
 - b. clarify the roles and responsibilities for road administration at the various levels of government, in line with Government's decentralization agenda. Responsibility over rural roads will fall under local government, with financial and institutional

support from MTC (initially channeled through the proposed project). Responsibility over national and departmental roads, the latter on a temporary basis until the agenda for political and administrative decentralization is defined, will fall under central government. MTC is revising the functional-jurisdictional classification of all public roads in Peru and undertaking the inventory of all national and departmental roads under responsibility of central government;

- c. establish a public road corporation, with technical, administrative and financial autonomy to manage the national road network (and temporarily the departmental road network with assistance from the proposed project). Key features of the proposed legislation include (i) contracting out most of the work to the private sector, including ample use of road concessions and Build-Operate-Transfer schemes, and (ii) operating under private sector labor regime, which will enable attracting qualified staff. MTC plans to submit to Congress legislation in this regard and complete a study to define the organizational details; and
 - d. ensure the sustained funding of road maintenance at the central level and develop mechanisms for financing maintenance of rural roads, consistent with the evolution of Government's decentralization agenda. The latter is part of a broader policy dialogue that aims at allocating revenue raising and administrative responsibilities among the various levels of government.
- 4.5 The World Bank and the IDB have been involved in the definition and implementation of Government strategy in the road sector, and will continue to do so, in the context of the supervision of their ongoing highway projects (World Bank loan 3717-PE and IDB loans 651-OC-PE and 836-OC-PE). During project preparation, several meetings were held with governmental officials and congressmen from the Decentralization Committee; in this way, the project has incorporated built-in flexibility to accommodate current government policies and eventual developments in the decentralization agenda during project execution.

C. Legal status and organizational structure of PERT-PCR

- 4.6 MTC will have overall responsibility for project coordination and implementation. Actual implementation will be assigned to a specialized unit, the *Proyecto Especial de Rehabilitación de Transporte - Programa de Caminos Rurales (PERT-PCR)*, created by Ministerial Decree No. 315-95 of July 19, 1995. PERT is presently implementing both IDB and World Bank projects under the Transport Rehabilitation Program (IDB's 651/OC-PE and 836/OC-PE and IBRD's 3713-PE). The decree establishes the two programs with the same status, each led by an Executive Director who directly reports to the Vice-minister of Transport, and staffed according to the specific skills mix required for project implementation. The PRT

portion of PERT with responsibilities in the rehabilitation of the national road network will be transferred to the Superintendency of National Transport Infrastructure once this new organization is established. The PCR portion, however, will continue under PERT to fully implement the proposed project and carry out the rural road program until municipalities develop the institutional and financial capacity to manage their rural road networks. Due to the special nature of the statutes of PERT-PCR, its duration is limited to the execution of the proposed project. After project completion, the Government will decide whether there is a need to continue with PERT-PCR.

- 4.7 With staff and budget separated from the rest of the Ministry, as well as from PRT, the unit enjoys ample technical, administrative and financial autonomy. Its limited personnel is recruited at private sector salaries and paid from local counterpart funds. Most of the tasks will be undertaken by external consultants engaged under the project.

D. Road sector financial analysis

- 4.8 The main information source is MTC's General Bureau of Budget and Planning (Oficina General de Presupuesto y Planificación OPP). The budgetary information is presented in US dollars, using the rate of exchange published by the Peruvian Central Bank. During 1994 and 1995, the increase of the exchange rate has been less than that of CPI. Thus, in the following comparisons, activity volumes, when measured in US dollars, include at least partially an increase due to the relative change in that exchange rate.

E. Historic evolution of highway sector investment

- 4.9 Available and allocated investment resources has grown steadily since 1991, which is the last year in which highway investment was exclusively financed by public funds. After that date, disbursements from Bank loan 651/OC began, and overall activity increased.
- 4.10 During the 1991-1995 period, although fiscal resources plummet from 99.6% of total investment (1991) to 52.8% (1994), due to the increase in financing by multilateral donors (primarily IDB), its importance grew from US\$30.4 million to US\$132.8 million, reflecting the effort made then by the Government. These figures are likely to increase during 1995, if trends shown during the first semester continue as expected.
- 4.11 The allocation of resources by agency shows the increasing importance given to rehabilitation of the main highway system (particularly the Panamericana Highway). While PERT increased its level of expenditure ten-fold (US\$13.3 million in 1992 and US\$135.7 million in 1994), due in part to the Bank's loans, DGC, on the other hand, working exclusively with treasury resources, increased

its disbursement by a mere 25%, from US\$83.4 million to US\$106.2 million, respectively.

- 4.12 The allocation of these resources shows a sharp increase in expenditures in construction, rehabilitation and maintenance (although few resources had been allocated to new construction). They absorb more than 70% of total funds, accounting for US\$195.5 million from a total of US\$251.7 million in 1994. In 1993 and 1994, the category of equipment purchases gained importance, due to funds coming from an OECD loan totaling US\$71.2 million.
- 4.13 Summarizing, central government activity in the highway sector has increased considerably due to loans from several international donors, in which IDB loans played a major role, and to the financial effort of the treasury, which increased its disbursements substantially.
- 4.14 In addition to these funds, some highway investments are done through the departmental governments, which invested US\$47.0 million during 1994, and by a national agency (Instituto Nacional de Desarrollo), with an investment level of US\$13.1 million. Expenditures made by the municipalities could not be established, however these amounts are not significant.

F. Financial forecasts

- 4.15 The financial forecasts establish the Treasury's resource needs for the near future, including those funds to be allocated to IDB-WB loans (in execution and under study).
- 4.16 Information pertaining to 1995 is based on the approved budget. 1996 figures are included in the budget proposal that was submitted to Congress by the government for its approval. The following figures reflect the investment forecast estimate for DGC, PERT and SINMAC: figures include the resources flowing to SINMAC from the toll system it administers, as well as resources to be transferred by the treasury. However it does not include funds coming from new loans (excluding the current project), which implies a reduction in PERT's activity, nor does it include new projects. The most likely situation is that total investment will remain approximately US\$600 million per year.
- 4.17 The level of local counterpart funds will peak at a total of US\$274.7 million during 1995, and this level should be maintained, with slight variations in the following years.
- 4.18 The increased resources allocated by the national government to the highway sector in recent years, as well as the Government's commitment to maintain the current level during subsequent years, denote the political will to respond to the needs of the road sector. The Government should reaffirm its commitment annually, allocating the fiscal resources needed to carry out the sectoral investment program, through the corresponding budget approval.

- 4.19 WB and the Bank have been involved in the definition and implementation of the Government strategy in the road sector, and would continue doing so, in the context of the supervision of their on-going highway projects (WB's Ln. 3717-PE and IDB's 651-OC-PE and 836-OC-PE).

FINANCIAL BUDGET AND FORECASTS FOR THE HIGHWAY SECTOR (1995-2001) (US\$ mill. equiv.)							
	1995	1996	1997	1998	1999	2000	2001
I. Total investment							
a. D.G.C.	206.6	225.1	169.6	178.6	182.6	186.7	219.0
b. PERT	199.1	342.6	279.1	156.6	79.0	79.0	
c. SINMAC	25.1	27.4	43.2	48.8	54.9	61.0	67.1
Totals	430.8	595.1	491.9	384.0	316.5	326.7	286.1
II. Total Financing							
d. SINMAC	25.1	27.4	43.2	48.8	54.9	61.0	67.1
e. External resources	130.0	298.5	184.5	77.0	41.6	60.0	60.0
f. Public treasury	274.7	268.7	264.2	258.2	219.9	205.7	159.0
g. Other	1.0	0.5					
Totals	430.8	595.1	491.9	384.0	316.7	326.7	286.1

V. PROJECT JUSTIFICATION

A. General

- 5.1 This project is in keeping with the overall efforts of the GOP to improve its poverty alleviation strategy. The Government seeks several goals by its execution: (i) reduce transport costs and increase the reliability of vehicular access to expand markets for agricultural and non-farm products; (ii) integrate poorly accessible zones with regional economic centers; (iii) improve transport conditions in rural villages; (iv) generate employment through the rehabilitation and maintenance of rural roads to mitigate rural poverty; and (v) build up institutional capacity and develop small and medium enterprises to manage, on a sustainable basis, the maintenance and upgrading of rural roads.
- 5.2 Furthermore, this project is coherent with the Bank's strategy for the road sector, in which reduction of transport costs, increased mobility and access, and increased maintenance through community participation, will stimulate economic activity and reduce poverty.

B. Technical feasibility

- 5.3 Analysis of roads to be rehabilitated and maintained during the first year of the project, and the experience being gained through the development of the Pilot Plan, indicate that the rehabilitation and maintenance activities constitute adequate technical solutions. Technical designs, including general environmental specifications, are available for almost all roads and the designs are appropriate for the current conditions and foreseen utilization of them. Technical quality will be improved during implementation to optimize the life cycle cost of the road investment and maintenance programs.
- 5.4 The fact that the Pilot Plan is well under way, encompassing, for 1995, a planned rehabilitation of 1,506 km of rural roads, with an investment of approximately US\$33 million (of which US\$9 million would be eligible for retroactive financing), reconfirms the technical feasibility of the project as well as the managerial capabilities and institutional strength of the executing agency.
- 5.5 Due to the utilization of swift and sufficiently proven practices, all in accordance with Bank's procedures, no problems are envisaged in terms of availability of local labor nor are problems foreseen with respect to the process of bidding and contracting out works.
- 5.6 In view of the nature of the project, allocation of funds is done on a broad basis, in that budget allocation does not identify individual roads. Although the 1996 investment plan has been established already, the bi-annual administrative joint mission will carry out follow-up activities of the investment project, reviewing both it and the roads that are to be rehabilitated.

C. Institutional and financial feasibility

- 5.7 PERT-PCR has a structure that is considered adequate for the purpose of implementing the current project. Its personnel was technically capable of handling the problems that arose during the preparation stages and sufficient experience has been gained to manage the project once the financing is approved. In addition, when the project is in full execution, the agency will be assisted by two external consulting firms, both on a permanent basis.
- 5.8 The first of these firms will provide technical assistance in procedures and technical skills (engineering, economic feasibility and environmental studies, institutional assistance to local governments, procurement procedures). The second firm will provide external auditing services in technical, administrative and financial aspects, thus ensuring the executing agency will have at its disposition an independent point of view regarding the method of work and its results.
- 5.9 The financial feasibility is assured (as discussed in the previous chapter) by Government's commitment to continue funding the road sector at the high levels shown during 1994-1995, with the continuous use of funds coming from external donors, and with a steady flow of counterpart funds. In this particular project, counterpart funds will mean, for the 1995-1998 period, a total cost of US\$70.3 million, of which US\$38.2 million are VAT taxes.
- 5.10 Counterpart funds will be allocated annually in MTC's budget, in accordance with the investment schedule. These funds will constitute less than 5% per year of the total resources to be allocated to MTC's investment program. This is due to the peculiarity of the IDB-WB joint financing, in which resources of each institution are recognized as counterpart funds by the other.
- 5.11 Consequently, it is reckoned that the Peruvian Government will not experience difficulties to support its financial commitments regarding the current project, due to its low impact on MTC's finances. In addition, as this project has been defined as a "time-slice", with bi-annual review missions, there will be numerous opportunities to make adjustments to the investment plan and establish the availability of local funds for the following years.
- 5.12 Finally, this project represents a top priority to the GOP, and was ratified as such by the Ministries of Transport and Communications and of Economy and Finance. Top priority status is not expected to be modified in the nearby future.

D. Economic feasibility

- 5.13 Four main criteria were considered to evaluate the eligibility of the project proposals, namely: institutional, technical, social and economic criteria. The application of these criteria will allow to select works with a strong social purpose or works that have proved

their worthiness on the basis of their contribution to the agricultural and economic development of their influence area.

- 5.14 The institutional criteria refer to the level of identification the communities in the area of influence of a particular road will have with it, including the commitment to its future maintenance. The technical criteria refer to the construction characteristics and quality assurance procedures of the proposed projects and their functionality within the road network in the pertinent department.
- 5.15 The social criteria refer to the need of attending the poorest areas of Peru, integrating them to the mainstream economic activities, and contributing to the alleviation of poverty through employment generation. The economic criteria refer to the relation of the rehabilitation and maintenance costs of the works and the benefits that they will bring about in terms of the increase of the net agricultural and livestock production (net of the local consumption and of production costs) in the area of influence of the sub-project.
- 5.16 Under these criteria, the works included in both the pilot and first year programs have demonstrated their economic feasibility, presenting an IERR that exceeds the 10% threshold.

E. Poverty impact

- 5.17 Almost 30% of Peru's population live in rural areas. The prevalence of poverty is highest in the rural *sierra*, where two-thirds of the households are poor and 47% fall into the extreme poverty category. The indigenous populations are much poorer than the rest of the population: they account for 40% of the extremely poor and 25% of the poor. In health, sanitation, nutrition and education the situation has been worse in some rural areas, due to long-standing regional and ethnic inequalities.
- 5.18 The rural *sierra* contains the largest number of extremely poor inhabitants (about 1.6 million people); the per-capita income reaches a level of US\$536/year, while the poverty line drawn by the Bank is approximately US\$1,312/year. FONCODES defines as extremely poor, inhabitants whose income falls below US\$193/year; and as poor, those with an income less than US\$365/year. The modest impact on poverty reduction in the rural *sierra*, reflects the depth and intransigence of economic stagnation in rural Peru.
- 5.19 The project will benefit the poorest rural communities located in the *sierra* region, since sub-project selection criteria give priority to these areas. The potential number of beneficiaries is the 2.7 million rural population living in the first six departments targeted under the project. Further expansion of the project to include a total of 12 departments will benefit an additional potential 1.8 million rural population. All in all, this represents about 70% of the total rural population. In these rural communities women constitute a major beneficiary group of

road and track improvements. They are the largest group involved in taking products to the markets and improved road reliability should increase their income earning capacity. Better access to social services, such as hospitals and schools, would offer greater proportionate benefit to women.

Table 1. Poverty by region, 1991 and 1994 (%(percentage of population)				
Region	Poverty (1)		Extreme poverty (2)	
	1991	1994	1991	1994
Rural <i>Sierra</i>	68%	66%	47%	44%
Urban <i>Sierra</i>	n/a	n/a	19%	15%
Metropolitan Lima	49%	33%	10%	4%
Costa Urban	55%	44%	22%	13%
Peru (total)	54%	46%	22%	18%

(1) Poverty = insufficient income to purchase the equivalent of a food basket which would meet energy and protein requirements and satisfy other basic non-food requirements.

(2) Extreme poverty = insufficient income to purchase only the equivalent of the food basket.

Source: FONCODES.

5.20 By project design, the rehabilitation and maintenance of rural roads will increase the competitiveness of goods produced by peasants and small farmers, who number among the poorest of the inhabitants in the rural areas encompassed by the project. This is evident upon comparing figures corresponding to urban and rural sierra population.

5.21 Because of the above mentioned reasons, this investment loan could be qualified as a Poverty Targeted Investments under both criteria: (i) it is targeted to benefit the poor in specific geographical areas, and (ii) it is targeted by project design to benefit primarily lower income groups. The project includes several indicators to measure the benefits that these populations will receive from it.

F. Environmental feasibility

5.22 The Environmental Committee has classified this project as a Category III; accordingly, the project includes several environmental actions to ensure environmental soundness of the program. A technical assistance firm will help the executing agency in this aspect, through the preparation of an environmental manual and guidelines.

PERU

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

Logical Framework and Rural Roads Program Indicators

NARRATIVE SUMMARY	MEASURABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Reduce rural poverty and raise living standards of rural communities</p> <p>Increased access to basic services and economic infrastructure.</p>	<p>End of project status (EOPS)</p> <ul style="list-style-type: none"> * More than 2 million inhabitants of the rural population (out of a total of 4.5 million in the 12 departments that rank highest in rural poverty) has access to 10,000 km of rehabilitated and maintained road systems. * 20,000 one-year equivalent of non-skilled seasonal jobs generated by road rehabilitation works. * More than 2,500 of non-skilled permanent jobs generated by road maintenance works contracted out to microenterprises. 	<ul style="list-style-type: none"> * National and local statistics. * Survey of consumers' satisfaction of basic transportation needs, carried out in a sample of subprojects and presented at end of project. 	<ul style="list-style-type: none"> * Favorable macro-economic conditions in terms of trade. * Continuous Governments' support of poverty eradication policy and the project itself. * System of inter-governmental transfer and cofinancing mechanisms and local resources in place as a result of the decentralization agenda. * Government is committed to encourage municipalities.

PERU

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

Logical Framework and Rural Roads Program Indicators

NARRATIVE SUMMARY	MEASURABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>well-integrated and reliable em through rehabilitation and nce of rural roads and key connecting departmental</p>	<p>EOPS</p> <ul style="list-style-type: none"> * 50% of communities in project areas are interlinked by a reliable and affordable transportation system. * 50 % of the rural and departmental roads of the target area are rehabilitated and subject to sustainable maintenance. * Freight and passenger transportation tariffs cost 30% less than in 1995. * Traffic increases by 30% three years after completion of road improvements. * US\$250 million or more has been invested in works contracted out to contractors and local communities. 	<ul style="list-style-type: none"> * MTC and local governments' statistics on registration and inspection of transport services. * PERT-PCR's project monitoring database, traffic counts, and MTC's road inventory system. * Performance Audits carried out by independent consultants. * Contract data and supervision reports prepared by consultants. 	<ul style="list-style-type: none"> * Government advances its road decentralization agenda, with clear of roles and balanced distribution of responsibilities and funding for sustainable road maintenance. * Local governments and communities develop ownership of the project, supporting all of its aspects. * Significant transfer of transport users. * Affordability of means of transport potential providers of transport services.

PERU

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

Logical Framework and Rural Roads Program Indicators

NARRATIVE SUMMARY	MEASURABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Component</u></p> <p>Rehabilitation of Rural Roads Rehabilitation of Connecting Roads Maintenance of Roads</p>	<p>EOPS</p> <ul style="list-style-type: none"> * 7,500 km of rural roads are brought up to adequate transit standards. * 2,200 km of connecting roads are brought up to "good" condition. * 9,400 km of roads are routinely maintained and kept in pre-determined condition applying guidelines developed under the project. <p>(for intermediate benchmarks, see Annex 2, page 5)</p>	<ul style="list-style-type: none"> * MTC's road inventory and PERT-PCR's project monitoring database. * Road condition survey performed as part of the Performance Audit. * Satisfactory appraisal of PERT-PCR and its deconcentrated units by MTC, WB and the Bank. 	<ul style="list-style-type: none"> * PERT-PCR's and its deconcentrated units are fully operational in 12 departments implementing the project in compliance with agreed performance indicators. * Municipalities are eager to adopt "maintenance culture" and assume responsibility for sustainable maintenance. * Security situation does not prevent execution of the works. * The "local" construction industry has capacity to undertake the large volume of small works targeted under the project. * Successful creation of maintenance microenterprises. * Municipalities eager to actively join technical assistance program. * Successful coordination with other agencies.
<p><u>Component</u></p> <p>Improvement in small Improvement of Non-Motorized Transport (NMT)</p>	<p>EOPS</p> <ul style="list-style-type: none"> * 100 km of streets improved in not less than 140 villages located in project area; * 25 NMT projects successfully implemented. 	<ul style="list-style-type: none"> * Certification of work completed in accordance with technical specifications set in the Project Operational Manual, issued by supervisor. 	<ul style="list-style-type: none"> * Communities willing to participate and commit resources. * Coordination with other programs to enhance financial access to intermediate means of transport.

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RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

Logical Framework and Rural Roads Program Indicators

NARRATIVE SUMMARY	MEASURABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Institutional Development Component</u></p> <p>Technical assistance for: Planning and management of Rural Roads Unit (MTC and PERT-PCR) and institutional strengthening of local governments. Promoting micro-enterprises and improving rural road maintenance. Promoting the local construction industry capable of rehabilitating roads to specified transit standards.</p>	<p>By mid 1997</p> <ul style="list-style-type: none"> * Rural Roads Unit is operating within MTC with satisfactory capacity to plan and monitor investments and transport performance. * The revised functional and jurisdictional classification of roads and the inventory of all public roads in Peru are implemented. * MTC's transport budget. <p>EOPS</p> <ul style="list-style-type: none"> * 60 provincial municipalities (out of a total of 71 in the six departments) have adopted institutional programs designed under the project. * 100 microenterprises and SMEs are participating in routine maintenance contracts. * More than 150 local contractors and consultants are participating in training programs developed under the project. 	<ul style="list-style-type: none"> * Satisfactory appraisal of the Rural Roads Unit by WB and the Bank. * Project Monitoring Database administered by PERT-PCR. * Registration of micro-enterprises, contractors, and consultants (Consulcop and project registers administered by PERT-PCR). * Performance Audit of Institutional Development Components performed by independent consultant. 	

PERU

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

Logical Framework and Rural Roads Program Indicators

DESCRIPTIVE SUMMARY	MEASURABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
and functioning of UDEs in the Operational Manual	EOPS Level of expenditure (for intermediate benchmarks, see Annex 2)	* Contract signed.	* Availability of international and local consultants, with the necessary skills experience, willing to work and live difficult conditions of the provincial in rural Peru.
of the consulting firm to technical assistance to PERT-	US\$4,720,000 (by March 31, 1996)		
of the technical auditing	US\$1,074,000 (by March 31, 1996)		
of the firm or firms to maintenance microenterprises construction firms	US\$2,596,000 (by January 31, 1996)		
of the firm to develop non- rural transport	US\$826,000 (by January 31, 1996)		
	US\$354,000 (through project life)		
Road Administration Practices Roads Funding	US\$826,000 (initiate studies by December 31, 1996)		

PERU
RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT
RURAL ROADS PROJECT COSTS BY YEAR

PROJECT COMPONENTS	Program cost by year (US\$'000)				Total
	1995	1996	1997	1998	1995–98
CIVIL WORKS	22061	38822	52888	63932	177703
Rehabilitation of rural roads	16520	18880	23600	29500	88500
Rehabilitation of connecting secondary roads	1180	10620	16992	16992	45784
Routine maintenance of roads (labor–based)	0	1416	3398	6042	10856
Routine maintenance of roads (equipment–based)	0	708	1699	3021	5428
Improvement of village streets	4361	6608	6608	6608	24185
Improvement of village unclassified networks	0	590	590	1770	2950
CONSULTANT SERVICES	3370	5352	6634	6809	22165
Pre–investment studies	2267	3164	3577	3199	12206
Supervision of civil works	1103	1941	2644	3197	8885
Performance audits (technical, environmental, procurement and financial audit)	0	248	413	413	1074
INSTITUTIONAL DEVELOPMENT	295	3363	3009	2655	9322
Technical assistance (TA) for rural road planning	295	1475	1475	1475	4720
TA for developing maintenance microenterprises	0	708	590	590	1888
TA for developing local construction firms	0	236	236	236	708
TA for non–motorized rural transport	0	354	236	236	826
Studies on rural road financing and local administ.	0	472	354	0	826
Training	0	118	118	118	354
TOTAL BASELINE COST	25726	47537	62531	73396	209190
Physical contingencies	2206	3882	5289	6393	17770
Price contingencies	0	1388	3712	6639	11739
Project management costs (1)	826	2478	3835	4425	11564
TOTAL PROGRAM COST	28758	55286	75366	90853	250264

Note: all figures include the IGV tax (18%)

(1) includes US\$900,000 inspection and supervision fee

PERU
RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT
RURAL ROADS PROJECT COSTS BY YEAR
GOVERNMENT CONTRIBUTION

PROJECT COMPONENTS	Government contribution (US\$'000)				Total
	1995	1996	1997	1998	1995–98
CIVIL WORKS	5235	9752	13846	17474	46307
Rehabilitation of rural roads	3920	4480	5600	7000	21000
Rehabilitation of connecting secondary roads	280	2520	4032	4032	10864
Routine maintenance of roads (labor-based)	0	696	1670	2970	5336
Routine maintenance of roads (equipment-based)	0	348	835	1485	2668
Improvement of village streets	1035	1568	1568	1568	5739
Improvement of village unclassified networks	0	140	140	420	700
CONSULTANT SERVICES	514	816	1012	1039	3381
Pre-investment studies	346	483	546	488	1862
Supervision of civil works	168	296	403	488	1355
Performance audits (technical, environmental, procurement and financial audit)	0	38	63	63	164
INSTITUTIONAL DEVELOPMENT	45	513	459	405	1422
Technical assistance (TA) for rural road planning	45	225	225	225	720
TA for developing maintenance microenterprises	0	108	90	90	288
TA for developing local construction firms	0	36	36	36	108
TA for non-motorized rural transport	0	54	36	36	126
Studies on rural road financing and local administ.	0	72	54	0	126
Training	0	18	18	18	54
TOTAL BASELINE COST	5794	11081	15317	18918	51110
Physical contingencies	523	975	1385	1747	4631
Price contingencies	0	326	914	1720	2959
Project management costs (1)	826	2478	3835	4425	11564
TOTAL PROGRAM COST	7143	14860	21450	26810	70264

Note: all figures include the IGV tax (18%)

(1) includes US\$900,000 inspection and supervision fee

PERU
RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT
RURAL ROADS PROJECT COSTS BY YEAR
JOINT IDB AND IBRD CONTRIBUTION

PROJECT COMPONENTS	Joint IDB and IBRD contribution (US\$'000)				Total
	1995	1996	1997	1998	1995-98
CIVIL WORKS	16826	29070	39042	46458	131396
Rehabilitation of rural roads	12600	14400	18000	22500	67500
Rehabilitation of connecting secondary roads	900	8100	12960	12960	34920
Routine maintenance of roads (labor-based)	0	720	1728	3072	5520
Routine maintenance of roads (equipment-based)	0	360	864	1536	2760
Improvement of village streets	3326	5040	5040	5040	18446
Improvement of village unclassified networks	0	450	450	1350	2250
CONSULTANT SERVICES	2856	4536	5622	5770	18784
Pre-investment studies	1921	2681	3031	2711	10344
Supervision of civil works	935	1645	2241	2709	7530
Performance audits (technical, environmental, procurement and financial audit)	0	210	350	350	910
INSTITUTIONAL DEVELOPMENT	250	2850	2550	2250	7900
Technical assistance (TA) for rural road planning	250	1250	1250	1250	4000
TA for developing maintenance microenterprises	0	600	500	500	1600
TA for developing local construction firms	0	200	200	200	600
TA for non-motorized rural transport	0	300	200	200	700
Studies on rural road financing and local administ.	0	400	300	0	700
Training	0	100	100	100	300
TOTAL BASELINE COST	19932	36456	47214	54478	158080
Physical contingencies	1683	2907	3904	4646	13140
Price contingencies	0	1063	2798	4919	8780
Project management costs (1)	0	0	0	0	0
TOTAL PROGRAM COST	21615	40426	53916	64043	180000

Note: all figures include the IGV tax (18%)

(1) includes US\$900,000 inspection and supervision fee

PERU
RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT
RURAL ROADS PROJECT COSTS BY YEAR
(US\$ '000)

PROJECT COMPONENTS	Project costs			total
	IDB	IBRD	GOP	
CIVIL WORKS	65698	65698	46307	177703
Rehabilitation of rural roads	33750	33750	21000	88500
Rehabilitation of connecting secondary roads	17460	17460	10864	45784
Routine maintenance of roads (labor-based)	2760	2760	5336	10856
Routine maintenance of roads (equipment-based)	1380	1380	2668	5428
Improvement of village streets	9223	9223	5739	24185
Improvement of village unclassified networks	1125	1125	700	2950
CONSULTANT SERVICES	9392	9392	3381	22165
Pre-investment studies	5172	5172	1862	12206
Supervision of civil works	3765	3765	1355	8885
Performance audits (technical, environmental, procurement and financial audit)	455	455	164	1074
INSTITUTIONAL DEVELOPMENT	3950	3950	1422	9322
Technical assistance (TA) for rural road planning	2000	2000	720	4720
TA for developing maintenance microenterprises	800	800	288	1888
TA for developing local construction firms	300	300	108	708
TA for non-motorized rural transport	350	350	126	826
Studies on rural road financing and local administ.	350	350	126	826
Training	150	150	54	354
TOTAL BASELINE COST	79040	79040	51110	209190
Physical contingencies	6570	6570	4631	17770
Price contingencies	4390	4390	2959	11739
Project management costs (1)	0	0	11564	11564
TOTAL PROGRAM COST	90000	90000	70264	250264

Note: all figures include the IGV tax (18%)
(1) includes US\$900,000 inspection and supervision fee
Note: all figures include the IGV tax (18%)

PERU
RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT
PHYSICAL TARGETS UNDER RURAL ROADS INVESTMENT PROJECT

COMPONENT (Civil works)	Physical targets year (km)				Total
	1995	1996	1997	1998	1995–98
Rehabilitation of rural roads	1400	1600	2000	2500	7500
Rehabilitation of connecting secondary roads	100	500	800	800	2200
Routine maintenance of roads (labor–based)		1400	3000	5000	9400
Routine maintenance of roads (equipment–based)		100	600	1400	2100
Improvement of village streets	21	40	40	40	141
Improvement of village unclassified networks (1)		5	5	15	25

(1) number of project areas

PROCUREMENT PLAN				
FIRST YEAR PROJECT PROCUREMENT	FINANCING	METHOD	PRE-QUALIFICATION	DATES (quarter)
Works (amount)(number of contracts): Rehabilitation of rural roads (US\$18,880,000)(75) Rehabilitation of connecting secondary roads (US\$10,620,000)(30) Routine maintenance of roads (US\$2,124,000)(40) Improvement of village streets (US\$6,608,000)(45) Improvement of village unclassified networks (US\$590,000)(12)	IDB 37.5% WB 37.5% Local 25.0%	90% NCB 10% DC	YES	I/96
Consulting Services Technical assistance for rural road management and planning Total: US\$1,475,000 TA for developing maintenance microenterprises Total: US\$708,000 TA for developing local construction firms Total: US\$236,000 TA for non-motorized rural transport Total: US\$354,000 Studies on rural road financing and local administration Total:US\$472,000 Training Total:US\$118,000	IDB 42.4% WB 42.4% Local 15.2%	ICB ICB ICB ICB ICB NCB	YES YES YES YES YES	IV/95 I/96 I/96 I/96 III/96 III/96

ICB: international competing bidding
 NCB: national competing bidding
 DC: direct contracting

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

1996 INVESTMENT PLAN

ROAD	LENGTH (km)	INVESTMENT	
		S/.	US\$
DEPARTAMENTO DE HUANUCO	274.30	9,024,749	4,011,000
EMP. R3N-HUARIN-JIVIA-JESUS-SAN MIGUEL	68.80	2,263,590	1,006,040
AEROPUERTO-CONCHUMAYO-SIRABAMBA	30.40	1,000,191	444,529
YARUMAYO-YACUS-MARGOS-JESUS	40.00	1,316,041	584,907
EMP.R3N-QUIVILLA-CHAVIN DE PARIARCA-TANTAMAYO	49.90	1,641,761	729,671
EMP.R3N-HIGUERAS-YARUMAYO-CHAULAN	36.50	1,200,887	533,728
EMP.R3N-YANAS-SILLAPATA-PUNCURIN-LA UNION	48.70	1,602,280	712,124
DEPARTAMENTO DE JUNIN	214.50	7,085,249	3,148,999
ACOBAMBA-SAN PEDRO DE CAJAS-CONDORIN	48.00	1,585,510	704,671
COLPA-JARPA-ACHIPAMPA-VISTA ALEGRE	38.10	1,258,499	559,333
SATIPO-COVIRIALI-MARISCAL CASTILLA-LLAYLLA-CAPIRO	26.50	875,334	389,037
MAZAMARI-LLAYLLA-SANTA CLARA	16.10	531,807	236,358
VITOC-MONOBAMBA	26.80	885,243	393,441
RUNATULLO-ANDAMARCA-SANTO DOMINGO DE ACOBAMBA	59.00	1,948,856	866,158
DEPARTAMENTO DE MADRE DE DIOS	155.30	5,136,750	2,283,000
PASTORA-CHORRILLOS-TRES ISLAS	21.50	711,141	316,062
LA JOYA-CHONTA	10.20	337,378	149,946
PTO. MALDONADO-IZUYAMA BAJO-TAMBOPATA-CHONTA- INFIERNO (P.C.)	26.80	886,445	393,976
EMP. R26B-PINAL	12.00	396,916	176,407
LABERINTO-EMP.R26B	6.00	198,458	88,203
MAZUCO-PTO. MAZUCO-HUAYPETUE-PTA. DE CARRETERA	38.00	1,256,900	558,622
EMP.R26B-CACHUELA-PTO. ARTURO	18.00	595,373	264,610
EMP.R501-CENTRO PRADO-PTO. ARTURO	7.90	261,303	116,135
EMP.R26B-EMP.R506-PTO. ARTURO	12.40	410,146	182,287
EMP. R502-EMP. R503	2.50	82,691	36,751
DEPARTAMENTO DE PASCO	176.90	5,829,749	2,590,999
EMP. R101-GOYLLARISQUIZGA-CHACAYAN	39.00	1,285,247	571,221
ANTAGASHE-VINCHOS	20.00	659,101	292,934
GOYLLARISQUIZGA-SANTA ANA DE TUSI	13.00	428,416	190,407
EMP. R508-ANTAPIRCA	38.90	1,281,952	569,756
EMP. R104-PUZANGO-YUNGUL-PAMPASECA	66.00	2,175,033	966,682
DEPARTAMENTO DEL CUSCO	361.24	11,898,179	5,288,079
ACOMAYO-ACCHA	35.99	1,185,421	526,854
COMBAPATA-YANAOCOA-LIVITACA	116.55	3,838,701	1,706,089
LIVITACA-CHAMACA	15.00	494,063	219,583
QUINOTA-STO. TOMAS-DV. VELILLE	74.70	2,460,431	1,093,525
HUACCANCCA-CHIMUR	20.60	678,513	301,561
COLQUEPATA-PAUCARTAMBO	25.60	843,200	374,756
ARAYPALLPA-COLCHA	18.20	599,463	266,428
MAYUMBAMBA-RONDOCAN	13.00	428,188	190,306
ACOMAYO-SANGARARA-CHUQUICAHUANA	41.60	1,370,200	608,978

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

1996 INVESTMENT PLAN

ROAD	LENGTH (km)	INVESTMENT	
		S/.	US\$
DEPARTAMENTO DE PUNO	245.80	8,102,249	3,600,999
ILAVE-HDA. CARUMAS-DV. PUNO	60.10	1,981,062	880,472
JULIACA-COATA	21.30	702,107	312,048
PHARA-LIMBANI-DV. CRUCERO	58.70	1,934,915	859,962
SIGUALAYA-YUNGUYO-ZEPITA	55.20	1,819,545	808,687
COATA-AJOYANI-SALVIANI	50.50	1,664,620	739,831
DEPARTAMENTO DE SAN MARTIN	195.50	6,421,498	2,853,999
BELLAVISTA-SAN PABLO-S.J. DE SISA-CUNUMBUQUE - DV. MARGINAL (Km.592)	122.00	4,007,277	1,781,012
MORALES-SAN PEDRO-SAN ANTONIO DE CUMBAZA	13.20	433,574	192,700
SAN PEDRO-SAN ROQUE DE CUMBAZA	6.00	197,079	87,591
LAMAS-PAMASHTO-BELLAVISTA	18.80	617,515	274,451
PAMASHTO-VISTA ALEGRE	4.50	147,809	65,693
PTE. BOLIVAR-SAN MIGUEL-PUCAYACU	15.00	492,698	218,977
SAN ANTONIO-SHANAO-CHURUZAPA	16.00	525,545	233,575
DEPARTAMENTO DE ANCASH	190.98	6,290,022	2,795,565
PUENTE PARCO-UCTUYACU+ABRA TUTO-COTAPARACO	64.68	2,130,268	946,786
CARHUAZ-SHILLA-CHACAS	66.30	2,183,624	970,499
CORONGO-ACO-CUZCA	20.50	675,178	300,079
LLAPO-MIRAFLORES-STA. ROSA-CAHUAC	27.50	905,726	402,545
STA. ROSA-PORVENIR-ANCOS	12.00	395,226	175,656
DEPARTAMENTO DE APURIMAC	329.79	9,708,748	4,314,999
COYLLURQUI-QUISCAHUAYLLA	15.00	441,594	196,264
QUISCAHUAYLLA-LLAMAYUPA	10.00	294,399	130,844
LLAMAYUPA-COTABAMBAS	19.50	574,074	255,144
TAMBOBAMBA-MOYO TINCO	20.00	588,794	261,686
MOYO TINCO-CHALHUAHUACHO	19.00	559,352	248,601
CHALHUAHUACHO-HUANCCACCALLA	10.00	294,396	130,843
HUANCCACCALLA-HAQUIRA	11.99	352,833	156,815
HAQUIRA-MARA	32.00	942,068	418,697
PROGRESO-CHALHUAHUACHO	43.00	1,265,904	562,624
HUANCAPAMPA-PACHACONAS	3.60	105,982	47,103
AMORAY-COLCABAMBA	11.90	350,331	155,703
CHACAPUENTE-SORAYA	5.80	170,749	75,889
CHAYA-SANAYCA	10.80	317,947	141,310
OCOBAMBA-ONGOY-HUACCANA	42	1,236,464	549,540
COCHARCAS-SAYAREC-DV.CHINCHEROS	28.9	850,805	378,136
DV.ANDAHUAYLAS-HUANCARAY	32.3	950,900	422,622
PACUCHA-SANTA HELENA-PUYHUALLA	14	412,155	183,180

RURAL ROADS REHABILITATION AND MAINTENANCE PROJECT

1996 INVESTMENT PLAN

ROAD	LENGTH (km)	INVESTMENT	
		S/.	US\$
DEPARTAMENTO DE AYACUCHO	206.8	6,815,472	3,029,099
PALPA-CAMALA-PUCARA-HUANCASANCOS	97.60	3,216,587	1,429,594
PALPA-EL MOLINO-OCANA	61.70	2,033,436	903,750
CAMALA-HUAC-HUAS	36.50	1,202,924	534,633
PUCARA-LARAMATE	11.00	362,525	161,122
DEPARTAMENTO DE CAJAMARCA	327.72	10,794,352	4,797,490
R561-EMP.R3N-COLPON	14.83	488,466	217,096
EMP.R3N-TABACAL-LA OROYA (R569-EMP. R3N-TABACAL-CACHACHI)	23	757,568	336,697
LA OROYA CACHACHI (R569-EMP.R3N-TABACAL-CACHACHI)			
Y R572-CHUQUIBAMBAS-SIGIS Y ACCESO ASHAHUINDO	18.44	607,372	269,943
R601-TAMBERIA-EMP.R561 Y PAV. LA GRAMA			
R602-EMP.R3N-CHICHIR-R603-CHOLOCAL-EMP.R561	17.392	572,853	254,601
R604-EMP.R3N-CHOLOCAL-TAMBERIA-CHUGUR	18.5	609,348	270,821
R609-ALISO-HUAYLLABAMBA-TOTORILLA; ACC.A HUAYLLABAMBA			
PAV. CALLES CACHACHI Y CHUQUIBAMBA	34.558	1,138,262	505,894
CUTERVO-SOCOTA-SAN LUIS DE LUCMA	52.80	1,739,112	772,939
EMP. R3N-LLUCHUBAMBA-SITACOA	35.50	1,169,289	519,684
EMP. R105-HDA. JOCOS-SITACOA	25.70	846,500	376,222
SAN MIGUEL DE PALLAQUES-SAN PABLO-TAMBILLO-EMP. R3N	87.00	2,865,582	1,273,592
DEPARTAMENTO DE HUANCAMELICA	368.68	12,141,580	5,396,257
ACOBAMBA-MARCAS	46.36	1,526,787	678,572
CCASAPTA-EMP.(PAUCARA-ACOBAMBA)-CHILCAPITE;			
YAUQUINA-EMP.(PAUCARA-ACOBAMBA)-CCARABAMBA;			
VILLARICA Y TRANCA-POMACANCHA	25.7	846,384	376,171
CHACCAHUAYCCO-EMP.(PAUCARA-ACOBAMBA)-ANDABAMBA;			
CULLUMACHAY-EMP.(PAUCARA-ACOBAMBA); LLIPLUNA-			
CONCHAYPATA-ROSARIO	25	823,331	365,925
CALZADA EMP.(PAUCARA-ACOBAMBA)-CHANQUIL-ANTA-			
RAYANNIYOC; CHANQUIL-HUAYANAY Y CCARABAMBA-			
CHILCAPITE	28.5	938,597	417,154
PAVIMENTACION CALLES: MARCAS, CAJA ESPIRITU,			
HUANCAPITE, ANDABAMBA, ROSARIO, ANTA, RAYANNIYOC,			
CHANQUIL, HUAYANAY, VILLA RICA, CCARABAMBA Y			
POMACOA	1.326	43,669	19,409
CUNYAC-PACHACCLLA; LIRCAY-ANCHONGA; ANCHONGA-TUCO			
TUCO-CCOCHACCASA; EMP.(HUANCAMELICA-LIRCAY)-PONGOS	44.175	1,454,825	646,589
EMP.(HUANCAMELICA-LIRCAY)-CCARHUAC; EMP.(PUCAPAMPA-			
CCARHUAC)-PANTACHI NORTE; PUCAPAMPA-PARCO ALTO-			
CHONTACANCHA; PARCO-ALTO ROSA ANTONIETA	50.37	1,658,847	737,265
PAVIMENTACION DE CALLES: ANCHONGA, TUCO,CCARHUAC,			
PARCO ALTO, CHONTACANCHA Y PANTACHI NORTE	1.244	40,968	18,208
PALCA-AURAHUA-CHUPAMARCA	58.00	1,910,126	848,945
PALCA-TANTARA	26.00	856,265	380,562
EMP. R101-SAN MIGUEL DE HUALHUA-HUARIBAMBA	10.00	329,332	146,370
CHUPURO-SOCOS-PTE. RUMICHACA	52.00	1,712,449	761,088
TOTAL	3047.50	99,248,596	44,110,487

LEGI III/PE-6001
PE-0136
Original: Spanish

PROPOSED RESOLUTION

PERU. LOAN /OC-CO TO THE REPUBLIC OF PERU

(Rural Roads Rehabilitation and Maintenance Project)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Peru, as Borrower, for the purpose of granting the latter a financing to cooperate in the execution of a Rural Roads Rehabilitation and Maintenance Project. Such financing will be for the total amount of up to US\$90,000,000, or its equivalent in other currencies, except that of the Republic of Peru, which are part of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Terms and Financial Conditions" of the Executive Summary of the Loan Proposal.