



## Peru Rural Road Program:

Bringing Access to the Rural Poor



IBRD Results

### SYNOPSIS

A little over 10 years ago, only slightly more than one quarter of Peruvians living in rural areas had access to a road in good condition, hampering their efforts to get to markets, send their children to school, or reach health clinics. IBRD joined Peru's government on a program that has rehabilitated 15,000kms of roads, creating 6,000 permanent jobs and 500 microenterprises working on road maintenance.

### Challenge

Three quarters of Peru's rural population live in poverty, and about half of these in extreme poverty. In the rural parts of the Andean mountains, non-existent or very inefficient transport infrastructure limits people's access to local markets, schools and health centers, effectively hampering income-generating opportunities, social services and knowledge.

Many of the most vulnerable segments of the Peruvian population, including indigenous peoples, live in remote places in the *Andes* or *Selva* regions, and women from these communities in particular suffer from the lack of access to functioning roads and transport. In 1999, only 28 percent of rural households in Peru had access to a road in good condition.

These conditions have a clear impact on the quality of lives of people in rural areas. According to a 2004 survey conducted by the World Bank, 60 percent of the trips traveled in rural areas were for the purposes of visiting local markets, either to sell or to shop. The typical distance traveled ranged from 15-to-35 km. For 60 percent of rural households, freight transport services were either only available 1–3 times a week, if at all. The lack of availability and predictability of transport services substantially affected the

productivity of the rural economy because it increased both transaction and waiting times, and it also threatened the quality of perishable goods, causing even higher costs to the people who could least bear them.

### Results

Since 1995, the Peruvian authorities have successfully designed and implemented an innovative approach to road management in the poorest areas of rural Peru, with the help of the World Bank and the Inter-American Development Bank. The Peru Rural Road Program consists of a series of three projects, namely the Peru Rural Road Rehabilitation and Maintenance project (1995–2000), the Second Rural Road Project (2001–2006) and the Decentralized Rural Transport Project (2007–2011).

The program improved rural transport conditions for more than 3.5 million Peruvians, resulting in reduced travel times and costs, increased access to social services like schools, and improved economic opportunities, with impact evaluations showing significant benefits for the poorest, most remote communities.

By the end of the second phase in 2006, Project outputs surpassed the initial targets:

- More than 15,000 km of rural roads rehabilitated.
- More than 500 micro-enterprises created to maintain these roads.
- About 6,000 permanent jobs created.
- Reduction in travel times by 30-to-58 percent.
- Improved perception of better road conditions by local communities.

Additionally, the technology used for road rehabilitation (gravel) is about a quarter of the cost of more expensive alternatives like paved roads, allowing the improvement of more kilometers of roads with the same amount of resources. Before the program, low cost alternatives were discarded because communities were afraid they would not last. The impact evaluations indicate that about 78 percent of surveyed households consider the roads to be adequately rehabilitated and maintained. Fifteen years of successful experience show that gravel roads are a sustainable and cost-effective option, provided adequate maintenance is performed.

These outputs led to significant improvements in transportation outcomes. Travel time to markets and district centers was cut by half after road rehabilitation. The availability of freight and passenger transport services more than doubled. Costs were reduced by 18 percent for freight and 78 percent for passenger transport services. Analysis of the impacts of the program estimated an economic rate of return of 31 percent, yielding US\$64 million in net benefits.

In 2005, a thorough evaluation of the Second Rural Road Project was performed, showing it had a significant and positive impact, including: an 8 percent increase in school enrollment; a 55 percent increase in visits to health centers; a 16 percent increase in land used for farming; and a 20 percent increase in men's agricultural salaries. Analysis found improving trends in poverty and extreme poverty indicators

The 30 km-long rural road Cuzco-Coorca-Totora in the region of Cuzco is a good example of how low cost gravel roads proved to be both cost-effective and sustainable. Rehabilitated in 1996, the road has since been routinely maintained by the microenterprise *Coorca*, and as a result of sound upkeep, the life of this road is expected to exceed 15 years.

### How life changed for Victoria Jara since she became a member of the “Layson” microenterprise

The **microenterprise Layson** has operated in the Department of Cajamarca since June 2000. Victoria Jara Cuevas is a 37 year-old mother of two children. She first became aware of the microenterprise program for rural roads maintenance when her boss's son, who directed a microenterprise, hired her to cook for his 16 workers for 250 Soles (around US\$90) a month for five months. Victoria got involved in the program and later was selected to become a member of the **MERM Layson**, which up to that time comprised seven men. In addition to learning the technical skills of routine road maintenance, Victoria realized that this job could help her get her family out of poverty.



Like many Peruvian women, Victoria is the head of her household. Her mother, her two daughters, and her brother's family depend on her for their livelihoods. She also supports her grandmother and her other brothers whenever needed. Since

she started working on the road, she has managed to send her elder daughter to high school in the city. She uses her monthly salary to buy rice and oil for the whole family, and to pay for her daughters' school, with the rest put into savings. Victoria's efforts have been recognized by her male colleagues, who would like her to become the treasurer and president of the micro-enterprise.

in the most remote areas where non-motorized transport infrastructure had been improved, compared to the other areas not covered. This effect on poverty is expected to become stronger over time. Vulnerable groups, especially women, have particularly benefited from the program. For example, primary education for girls increased by 7 percent and the proportion of sick or injured children under the age of five decreased by 8 percent.

The maintenance activities also created job opportunities for poor men and women from rural communities living alongside the rehabilitated roads. More than 500 microenterprises are routinely maintaining the 15,000 km of rehabilitated roads. Routine maintenance is highly labor-intensive and almost 6,000 permanent, unskilled jobs have been created, while rural entrepreneurship has been strengthened. The most advanced micro-enterprises are expanding and even diversifying outside of the road sector. After having to overcome an initial resistance from their male co-workers, women have now become active entrepreneurs who represent 24 percent of staff in the microenterprises, compared to an initial target of 10 percent. Testimonies from female entrepreneurs illustrate their high spirits in seizing the opportunity offered by the program to generate income for their household.

In order to increase the program's benefits in the areas where transport conditions have improved, an innovative mechanism called the Local Development Window (LDW), has been introduced. The LDW is a mechanism, managed by non-governmental organizations (NGOs), through which productive initiatives are identified and prioritized. Entre-

#### **Multiplying the economic impact of rural roads on local development: *Cooperativa Cristo Rey***

In *Lamas* province, the LDW *Pamashto* supported a local association of coffee producers. They partnered with *Caritas* and connected with *Exportaciones Amazonicas Nativas*, to gain access to export markets. Further financial support from USAID allowed them to diversify production into other export crops. The producers have now formed a cooperative (*Cooperativa Cristo Rey*) with more than 300 members, which generates its own resources. The cooperative is managed by a committee and provide loans to members. Their increased size and capacity have allowed them to renegotiate the price of coffee per ton, obtain their own brand and create a tasting center. The example of *Cooperativa Cristo Rey* has encouraged other producers in the region to participate in the Pamshmato VDL. The president of *Cristo Rey* says: “*the producers see this and believe that if they come together, they can do it too*”.

#### **The Provincial Road Institute of Yungay**

The Provincial Road Institute of *Yungay*, created in 2002, gathers in one single institution the provincial government of *Yungay* and the seven district municipalities that constitute the province. The institute is responsible for planning and managing the rural roads network and financing the routine maintenance of the 186 km of rural roads rehabilitated by the program. The institute has signed an agreement with each of the four districts where the rehabilitated roads are located. Its budget of 640,000 Soles (about US\$194,000) is drawn 60 percent from the province and at 40 percent from the districts. The institute contracts out routine maintenance activities to seven microenterprises, employing 70 people.

preneurial support is provided (namely the preparation of business plans) and the corresponding initiatives are presented to potential sponsors during project fairs. The LDW has so far been active in 85 districts from 12 Peruvian provinces but expansion to 18 additional provinces is underway. Between 2001 and 2006, the LDW, under the active management of *Caritas Peru*, identified 850 initiatives at pre-feasibility stage, of which 167 reached feasibility stage and 72 found a sponsor. At the end of 2009, another 54 business plans were under consideration. Eight regional fairs and one national one were organized, leveraging several million dollars in financing from various sponsors. Achievements include support to a cooperative of coffee producers in the *Lamas* province, the construction of a fish farm in the *Sauce* region of San Martin and the cultivation of a traditional root, *Yacon*, in the district of *Orcotuna*, part of the *Junin* region.

Innovative institutional arrangements supported by the program over the past decade also have promoted a more inclusive a democratic local political culture, resulting in more efficient decentralized institutions and increased participation of previously marginal rural communities in local decision-making, particularly among women and indigenous communities. In particular, 132 rural provincial municipalities now have full responsibility for the execution of project activities, versus an initial target of 12. In these municipalities, new institutions (Provincial Road





Institutes) were created to take over rural roads management in an efficient manner. These institutions, as well as the participatory planning instruments and the cooperation arrangements created between provincial and district municipalities made a significant contribution to the decentralization process.

## Approach

The approach developed over 15 years by the program has firstly aimed at empowering the rural poor in the process of selecting those rural roads that should be rehabilitated. More than one hundred provincial participatory road plans have been prepared through the organization of community workshops. These plans prioritize among road segments to identify the ones that are most critical to the needs of the poor and most likely to help spur productive activities. The project has been considering all the main transport modes of the rural poor: rural roads as well as pedestrian paths for the extreme poor and even fluvial transport for the communities living in the Amazonian regions. Pedestrian paths are generally former Inca trails and they constitute informal modes of transport that play a very important role to give

access to the poorest and most remote areas. They are also widely used by poor women. The participatory approach adopted during project design allowed identifying that this type of activity was indeed a priority, although it was not considered in the initial design of the program.

The systematized use of robust monitoring and evaluation instruments was another important element brought into project design. Three thorough impact evaluation surveys were conducted in 2001, 2005, and 2007, comparing the actual impact of the program in areas where transport conditions were improved to control groups where no intervention had been performed. The results from these impact evaluations were applied to project design and they contributed to the building of a culture of learning and innovation in the implementing agency (*Provias Descentralizado*). For example, the idea of the Local Development Window emerged when it was shown that a measured impact on poverty was delayed by several years after roads had been rehabilitated and that a mechanism aiming at promoting entrepreneurship could help accelerate impact.

The program goes well beyond a traditional road project since it also includes important social, economic and institutional dimensions. This would not have been possible without the high diversity of Peruvian and World Bank staff who worked on this program. The strong gender dimension of this program was introduced after a Gender Action Plan was prepared in 2002, resulting in a greater participation of women in project design and activities. A review of how the program strengthened local governance and civil engagement was conducted in 2007 with support from the World Bank. This review found a strengthening of institutional and participatory mechanisms in areas where the program operated, as well as the emergence of new leaders, greater accountability of local governments, and even higher participation rates in elections.

## IBRD Contribution

The World Bank has lent US\$90 million to Peru for the Rural Road Rehabilitation and Maintenance Project, US\$50 million for the Second Rural Road Project and US\$50 million for the Decentralized Rural Transport Project.

## Partners

The Program has been co-financed with the Inter-American Development Bank, a long-time partner of the government of Peru in the transport sector, together with the World Bank. This successful partnership between the two development banks has brought important benefits to all the actors involved, such as: (i) reduction of transaction costs through harmonized operational and reporting procedures; (ii) improved consistency of policy dialogue for policy reforms in the transport sector; and (iii) increased frequency and quality of project supervision.

## Good Practices Developed/Replicated

The Peru Rural Roads program has become a benchmark and best practice for other rural transport operations in the Latin America region. The successful experience of the Peruvian microenterprises has been repeated in countries like Bolivia, Ecuador, Guatemala, Haiti and Honduras. It was even introduced on a pilot basis in a rural road program financed by the World Bank in China. A toolkit explaining how a microenterprise program can be designed and implemented was also prepared.

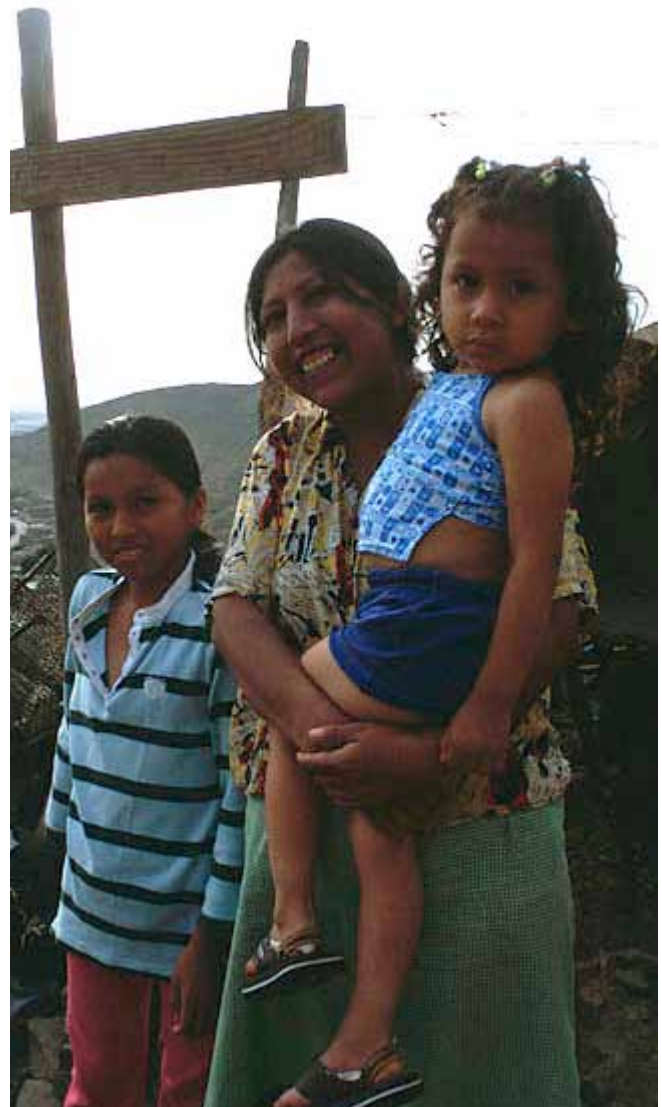
The gender dimension of the Peru Rural Roads Program was also presented as a best practice in a WB/Asian Development Bank workshop on gender and infrastructure, held in Manila in 2008. The local governance aspects of this program were presented at a World Bank conference organized in 2009 in New Delhi.

## Next Steps

The program initially operated in the twelve poorest regions of Peru, representing half of the country. Since 2007, the project's scope has been expanded to encompass the entire country.

Under its third phase, the Peru Rural Roads Program is now trying to promote sound participatory planning practices

not only for rural roads, but also for other types of rural infrastructure such as water/sanitation, electrification and telecommunications. A World Bank study has shown that wider benefits can result when several rural infrastructure services become available to the rural population. For example, the income of rural households would increase more if water and transport services become available than when considering the sum of the individual impacts of having access to only one of these two services. Accordingly, the program is currently piloting the preparation of 12 Participatory Provincial Rural Infrastructure Plans. The evolution of Provincial Road Institutes into Provincial Infrastructure Institute is also envisaged.



## LEARN MORE

- Provias Descentralizado: website: [www.proviasdes.gob.pe](http://www.proviasdes.gob.pe)
- Project Appraisal Document – Peru Rural Roads Rehabilitation and Maintenance Project
- Project Appraisal Document – Peru Second Rural Road Project
- Project Appraisal Document – Peru Decentralized Rural Transport Project
- Learning Implementation Completion Report – Peru Rural Roads Rehabilitation and Maintenance Project
- Learning Implementation Completion Report – Peru Second Rural Road Project
- Building Roads to Democracy? The contribution of the Peru Rural Roads Program to Participation and Civic Engagement in Rural Peru – Social Development Notes No. 111, The World Bank, Feb. 2008
- Impact of the Rural Roads Program on Democracy and Citizenship in Rural Peru, Marisa Remy, The World Bank, June 2008
- *Genero en Peru: Podemos integrar a la mujer en proyectos de transporte? En Breve* note No. 112; The World Bank, Oct. 2007
- Rural Infrastructure in Peru: Effectively Underpinning Local Development and Fostering Complementarities, The World Bank, Jan. 2006.
- *Trabajando en la Carretera*. Nerida Alcahuasi, *Pontificia Universidad Católica del Perú*. 2003
- *Efectos de los caminos rurales en las relaciones de genero*, CENTRO 1999, Peru
- Mainstreaming gender in rural roads projects: the case of the rural roads of Peru, M. Elena Ruiz Abril, World Bank 2002
- Promising Approaches for Engendering Development: Making Rural Roads Work for both men and women. Lucia Fort and Aurelio Menendez.

## MULTIMEDIA

- DVD: “Connecting Development: Rural Roads in Peru” (10 min movie, © The World Bank, 2007)

## BACKGROUND:

### Web Photo Standards



Microentrepreneurs are performing routine maintenance on a rural road in the Andes (photo credit: World Bank).



A Peruvian women participates in a workshop to prioritize roads and paths to be rehabilitated by the program (photo credit: World Bank).

**LEARN MORE** *(continued)*

Non-Motorized Transport tracks give access to pedestrian traveling to the most remote and poorest communities.



Microentrepreneurs from the Inmaculada Concepción S.A. in the Ayacucho region.



Local business is supported by the Local Development Window.