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IMPACT EVALUATION OF THE PERU SUBNATIONAL TRANSPORT PROGRAM

What is the impact of access to rural roads on the opportunities and welfare of the remote rural poor?

Peru Subnational Transport Program

FOCUS:
Component 1 of the Program: rural road rehabilitation and improvement toward social inclusion and improved logistics.

PROJECT STATUS:
Under implementation.

IMPLEMENTING AGENCY:
Provias Descentralizado, Ministry of Transport and Telecommunications of Peru.

LENGTH:
2,200 kilometers of rural roads across Peru in approximately 139 road segments.

ROAD SELECTION:
Roads were selected based on their ranking in a prioritization index of a list of roads selected by the community, which identified those having the potential to bring the highest impact on social inclusion impact and logistics development.

TREATMENT:
Most road rehabilitation will consist of low-cost structural improvements, such as providing gravel roads as an improvement over dirt paths.

Traders traveling on rural roads in Peru

Context

In the past decade, Peru has displayed strong economic performance, but disparities across the country remain high, particularly between rural and urban areas. In 2015, while the poverty rate was only 14.5% in urban areas, it stood at 45.2% in rural areas.

While rural poverty in Peru has multiple roots, one of them can be traced to poor connectivity to markets, social services, and income-generating opportunities; inadequate transport services in the more remote regions; and logistics bottlenecks in the hinterland. Road network constraints in both coverage and quality are considered one of the main reasons for unequal development of the country's different departments. To address these constraints, the Peru Subnational Transport Program (PATS) was approved in 2015 by the World Bank.

The project aims to provide sustainable access to roads to the rural population of Peru. The project has 3 objectives: (i) facilitate sustainable road access of Peru's rural populations to services, (ii) reduce transport costs on rural roads linked to priority logistics corridors, and (iii) strengthen decentralized road management. It consists of a comprehensive countrywide transport program involving road rehabilitation and improvement, maintenance activities, and institutional strengthening to support decentralized rural road management. The total project financial envelope amounts to US$600 million, including a US$50 million loan from the World Bank and a US$50 million loan from IADB.

Impact Evaluation Research

The impact evaluation seeks to determine the welfare outcomes of the PATS. The evaluation is focused on three activities of the project: (i) the rehabilitation and improvement of rural roads to enhance access to services and opportunities and to reduce logistics costs, (ii) creating a local and logistics development window to enhance logistics and productivity and spur economic activity alongside improved roads, and (iii) building capacity of microenterprises to perform routine maintenance on rural roads.

The primary evaluation goal underpinning this research is to determine the extent to which a rural roads project can affect available income-generating opportunities and the welfare of the remote rural poor. Accordingly, the proposed study seeks to understand the impacts of the overall intervention through a set of social and economic indicators such as household income and consumption, asset ownership, school attendance, and health service utilization rates, among other variables. The evaluation methodology involves an ex ante definition of the treatment and comparison groups and a quasi-experimental methodology to identify the impact of rural road rehabilitation, based on the ranking of a prioritization index, considering all roads proposed for rehabilitation. The evaluation will consider as a control group the rural roads with the highest priority scores among those that were not selected. The evalaution also includes an experimental treatment arm for the local development window component, in which the provinces that will receive this complementary intervention are selected at random.

Rural Road in the Lamas Province in Peru

Policy Relevance

While the impact of rural roads projects has been extensively studied, to date there are very few rigorous impact evaluations quantifying the effectiveness of these investments and their distributional outcomes. This evaluation will make contributions to the existing body of literature on the impacts of rural roads by adopting a rigorous design, thus having a great potential to influence both local and international policy making in the sector in the future.

In addition, the evaluation will inform policy makers on the ways transport investments interact with complementary interventions, such as the local development window and the capacity building of microenterprises to conduct routine maintenance of rural roads. The gender aspect incorporated in the evaluation will provide evidence on whether the interventions have differential impacts for men and women.

As a final point, the Peruvian government is committed to poverty reduction and social equity. Accordingly, the evaluation will provide valuable advice to policy makers on how transport infrastructure and ancillary services can be tailored to the needs of the poorest and more vulnerable groups, and which complementary interventions can maximize the impact of rural roads projects. Joint implementation of this impact evaluation with the IADB and with client will also help foster country ownership.

For more information email **dimetransport@worldbank.org** or visit **www.worldbank.org/en/research/dime/brief/transport**

IE CONNECT FOR IMPACT

The ieConnect for Impact program links project teams with researchers to develop rigorous and innovative impact evaluations that both substantially improve the evidence-base for policy making and induce global shifts in transport policy. The ieConnect program is a collaboration between the World Bank's Development Impact Evaluation (DIME) group and the Transport Global Practice. This program is part of the Impact Evaluation to Development Impact (i2i) multi-donor trust fund and is funded with UK aid from the UK government and by the European Union.