



**Lessons from Recent Evaluations:
Water, Transport and Energy**

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difficulty sustaining transport infrastructure and services. Projects managed by the transport sector are more likely than project managed by other sectors to achieve sustained transport outcomes.

To learn more, visit IEG's website to download the evaluation on **Improving Institutional Capability and Financial Viability to Sustain Transport**.

Upcoming Evaluations

- **India:** Kerala Rural Water Supply and Environmental Sanitation Project, and Maharashtra Rural Water Supply and Sanitation "Jalswarajya" PPAR. The assessment will review the projects that were in the first wave of India's Sector Reform Project focusing on replacing the former supply-driven model with decentralized local-level development using a demand-led approach.
- **Poland:** First, Second, and Third Road Maintenance and Rehabilitation projects PPAR. This assessment

will focus on the loans that supported Poland's national roads agency in the rehabilitation of its national roads network and the National Road Safety Council in setting up a comprehensive program to improve road safety and reduce road accident fatalities.

- **Croatia:** Energy Efficiency, Renewable Energy Resources, and District Heating Projects PPAR. The assessment will review the three projects that together cover energy efficiency and renewable energy issues in Croatia.
- **Senegal:** Electricity Sector Efficiency Enhancement Project and Energy Sector Recovery PPAR. This assessment will consider the effectiveness of the World Bank's engagement in Senegal's energy sector and highlight the policy, sector reform, institutional, and financial aspects of the sector and the sustainability of energy services.

**For more information, visit the IEG webpage at
<http://ieg.worldbankgroup.org>**



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This issue of the knowledge note series, Lessons from Evaluations of World Bank Group Support to Water, Transport and Energy, highlights major studies and project assessments in water, transportation, and energy carried out by the Independent Evaluation Group (IEG) during 2012.

Improving Roads, Railways, and Ports: Cases of Mozambique and India

Mozambique enjoys a privileged and strategic location as the natural exit for most of its landlocked neighbors, which over the past years it used to integrate different transport modes within the country and with neighboring countries. The World Bank's Railways and Ports Project in Mozambique played an important role by aiming to increase the operating efficiency of the three major port-rail systems. The project set out a goal to increase the share of the international freight traffic from neighboring countries as well as to strengthen the transport sector policy, the regulatory framework, and the institutional capacity of the Ministry of Transport

and Communications. Another component of the project aimed at downsizing the staff of the Ports and Railways of Mozambique (CFM), which it did by bringing down the number of staff from 19,387 in 1998 to 1,653 by the end of 2006. Key activities included: (i) the diagnosis of staff composition and characteristics by an international consultancy firm; (ii) a survey of 3,020 workers throughout the country to identify the activities they wanted to undertake after retrenchment; (iii) legal consideration of retrenchment solutions and compensation options; (iv) development of a Financial Procedures Manual, stating the requirements for an audit of 100 percent of invoices and payments relating to the staff rationalization process; (v) creation of specific operational units, including: a Staff Technical Unit as an autonomous office to handle the sensitive process of retrenchment and reintegration of surplus staff and the adoption of social mitigation measures; a Project Accounting Unit, and offices for the Organization of Early Retirement; and (vi) following conception of the pilot phase of the reintegration program and its costs, award of a contract with a strategic partner

to implement the socio-professional integration of the retrenched workers. This, combined with the increased international port traffic and organizational restructuring of CFM, has resulted in increased net income since 2007 which has enabled CFM to pay dividends to the government. For more information, please visit IEG's website to download the assessment on **First Phase of the Roads and Bridges Management and Maintenance Program Project, and Railways and Ports Restructuring Project in Mozambique (PPAR)**

Rapid economic growth in India during the last 10-15 years has stimulated an increasing demand for improving the quality of road infrastructure across the country including the states of Gujarat and Karnataka. IEG's assessment of the World Bank's state highway projects in both of the states shows that the World Bank can effectively engage in helping the government improve the quality of roads. The Gujarat State Highway Project helped improve government's institutional capacity for the planning and maintenance of road infrastructure. One of the lessons of the project assessment is that the physical and financial sustainability of a road network hinges on the road agency's capacity to undertake needs-based and timely implementation of road improvement and maintenance works. This enables optimal use of available funds and avoids greater costs of repair in the future. Under the Gujarat State Highways project, the state has been able to consolidate its capacity for planning road works to a greater extent than under the Karnataka State Highways Improvement Project. This is reflected in differences in the condition of selected project roads five to seven years after project completion. Institutional and administrative capacity-building should be carried out in step with the readiness of the target agency to internalize it. In retrospect, institutional reforms in the Karnataka project could have been attempted in a phased and incremental manner, allowing time for them to be integrated with wider operations by obtaining the support of key government departments. As road agencies evolve from being providers of roads services to 'managers' of increasingly outsourced functions, it is

essential that core competencies – such as planning, technical design, road management systems, contract management, and environmental and social safeguards – are retained and strengthened to ensure sustainable management of the road network. To learn more, visit IEG's website to download the assessment on **Gujarat State Highway Project and Karnataka State Highways Improvement Project in India (PPAR)**

Challenges in Recovering the Costs of Sanitation in Vietnam

Many cities in Vietnam have developed systems of storm drains for flood protection. In the absence of dedicated sewerage networks, these drains also convey untreated sewage, polluting watercourses and posing a public health hazard. IEG's review of the Vietnam's Three Cities Sanitation Project, which was the first World Bank-financed urban sanitation project in Vietnam, and the Sanitation Management for Urban Areas Project found that they improved sanitation infrastructure and services and better solid waste management, especially in Danang City. However, financially viable sanitation utilities are still a long way off and constraints to adjusting tariffs persist.

One of the lessons from the assessment is that recovering costs from existing beneficiaries to pay for



expensive urban sanitation investments for the future is unlikely to succeed, especially when the government has traditionally undertaken this expenditure in Vietnam as in most developing and developed countries. To learn more, visit IEG's website to download the assessment on **Vietnam's Three Cities Sanitation Project and Sanitation Management for Urban Areas Project (PPAR)**

Making Water Resources Management in the Mekong Delta Work

IEG recently assessed two projects implemented by the World Bank in the Mekong Delta. The experience with the Mekong River Commission Water Utilization Project (MRC) - which sought to promote coordinated and sustainable water management in the Mekong River Basin – showed that human resource development at the national level is critical for the effective implementation of international and regional water resource agreements, an area where donor-supported programs can add value.

The assessment of the Mekong Delta Water Resources project in Vietnam showed that large-scale water resource infrastructure development in a delta environment needs to take place within a river basin systems planning process, which considers the varying flow scenarios, the potential future adverse effects of climate change, and the cumulative ecological and social impacts that a project in one part of the delta may have on another. The assessment also showed the need to ensure that environmental and social safeguards management is updated as design changes are made in a project and that unresolved safeguard issues are fully addressed even after the project closes. To learn more, visit IEG's website to download the assessments on the **Mekong River Commission Water Utilization Project** and the **Mekong Delta Water Resources project in Vietnam**.

Improving Institutional Capability and Financial Viability to Sustain Transport: An Evaluation of World Bank Group Support Since 2002

The services provided by investments in road networks, railways and transit systems, and ports for trade by air and water are important contributors to poverty alleviation and economic growth. IEG's evaluation, Improving Institutional Capability and Financial Viability to Sustain Transport, found that sustained transport has been a longstanding concern in the World Bank Group. As such, Country Assistance Strategies over the past decade have generally emphasized the need for sustaining transport, focusing primarily on roads. A large number and share of analytic and advisory activities supported by the World Bank also focus on sustaining transport.

Yet the share of World Bank operations with explicit objectives to sustain transport is low and declining. Only about a third of World Bank operations identified lack of maintenance funding as a risk at project appraisal and the projects are rarely designed to minimize maintenance needs. Private sector transport investments supported by the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) on the other hand are exposed to commercial risks and assessed for their viability before approval. Proactive measures to enhance project design and structure for sustained transport are therefore carried out only when such interventions are required.

The extent to which transport outcomes of these projects are sustained vary by country income and transport subsector. Transport is more likely to be sustained in high- and upper-middle income countries, and for intercity highways and ports. Railways, urban transport, air transport, and rural roads have greater

