



# Opening the Rural Hinterlands-Gujarat State Highway



## IBRD Results

### SYNOPSIS

Despite a once fast-growing economy, Gujarat Province was facing an economic decline that was not being helped by its poor road conditions and a growing population of car users. The impact on people's lives in this rural area turned around with implementation of the IBRD-financed highway project that upgraded road conditions and maintenance. Businesses thrived, agricultural production increased, students and teachers attended school more easily and frequently, and health improved as transport to and from Gujarat Province became faster and safer.

## Challenge

Although Gujarat had been one of India's fastest economic-growing provinces with one of the most extensive road networks in the vast country, its poor road conditions and rapidly rising vehicle ownership have literally taken its toll in the province. Congested road networks leading to longer travel times, high vehicle-operating costs, and low-quality services for users have impeded further economic growth in Gujarat. Road conditions are expected to deteriorate since road transport demands are anticipated to double within 10 years. The number of vehicles continues to increase. Insufficient and declining investments in the roads sector are in large part responsible for this situation. Equally serious is the limited capacity of sector agencies to build high-quality road infrastructure on schedule, adding to this is inadequate funding for the ongoing maintenance of roads leading to a backlog in road maintenance.

## Results

From 2000 to 2007 the Gujarat State Highways Project, with funding from the International Bank for Reconstruction and Development (IBRD), improved 1,900

**kilometers of roads, reducing travel times by 10 percent. Funding available for regular road maintenance increased by 20 percent.** The completion of project roads has provided major improvements in physical road assets as well as the institutional capacity of the Road and Building Department (R&BD) to manage the post-completion operation of the project investments. The annual 10 percent increase in road maintenance budget is providing adequate funding to ensure effective operation after the project.

**The project has also made the Gujarat Road Management System (GRMS) fully operational, providing state-of-the-art outputs on road condition and maintenance matters for the state's core road network, including the preparation of new project plans, evaluating the status quo, and setting out a clear rationale for change.** These enhancements have overwhelmingly benefitted the public that enjoys increased access to social, health, education, and economic services. Business output has improved due to the reduction of transport bottlenecks and costs; and any potential reduction in fares will also stimulate economic activity leading to greater employment opportunities and enhanced agricultural productivity.

An RB&D survey in 2007 revealed that road users now find driving conditions more comfortable. Travel time and



costs are reduced because vehicles are able to travel at higher speeds—going from 35–40 kilometers per hour (km/h) before the project, up to 60–65 km/h and even 80–100 km/h on some clear, straight stretches for light-motor vehicles. Commerce benefits from more commercial vehicles able to conveniently transport produce to market. Farmers are now able to make greater use of mechanized equipment for cultivation and transport bulky products like fertilizer, seeds, and pesticides more easily to their fields, increasing their profits. Industries also have easier access to raw materials, raising their profitability.

**Safety improved on roads that received periodic maintenance.** The number of traffic accidents decreased by 16 percent on average: The number of accidents that occurred on the roads after completion of periodic maintenance declined by 23 percent on the first-year roads, 22 percent on the fourth-year roads, and 8 percent on the third-year roads.

**Rural and semi-urban families now have improved access to health care and education.** Good access is especially important in times of emergency and for the management of infectious diseases. Children find it easier to go to school: school enrollment and attendance have increased and teachers are also able to accept assignments in schools further away from their homes, while also enabling them to attend school regularly.

**The efforts made by the Highways Project to reduce impacts on communities have also minimized the need for land acquisition and resettlement of households.** Poverty in the area has been reduced. Employment rates have

increased by 7 percent. The percentage of project-affected households with monthly income of less than INR 2,000 was reduced from 52 percent in 1999 to 30 percent in 2007.

The 2007 RB&D survey reveals other important results:

- **The number of households with only one earning member decreased from 72.4 percent to 53.3 percent for project beneficiaries, whereas the number of families with two or more earning members increased from 17.5 percent to 29.4 percent.** This resulted in a higher employment rate and higher monetary income compared to the survey's baseline data.
- **The employment rate increased from 26 percent in the baseline survey (around 2000) to 33 percent (2007).** But most of this increase came from labor work. The percentage of earners depending upon agriculture and other labor together increased from 43 percent in the baseline to 58 percent.
- **The monthly family income in financial terms increased compared to the survey baseline data, and there is an upward move in the income division of project-affected people.**
- **The Resettlement Action Plan supported the payment of compensation, provision of alternative housing, and training to those who might lose their land to the project.** Around 50 percent of beneficiaries used the paid compensation to meet their daily consumption needs and 38 percent invested in their business.

## Approach

IBRD divided the project into 6 distinct components:

- Widening and strengthening of state highways;
- Land acquisition and relocation and resettlement;
- Periodic maintenance of state highways;
- Design and supervision of civil works contracts;
- Institutional strengthening, technical advice, and training and equipment.

IBRD ensured comprehensive planning, with timely and quality completion that took into account feedback from stakeholders. The highly competitive construction industry

in the area, favorable exchange rate fluctuations, the Government of Gujarat's commitment to reducing costs, the implementing agency's tight management of contracts, and effective oversight kept costs low. The Government of Gujarat directly borrowed the IBRD funds with a guarantee by the Government of India.

## IBRD Contribution

IBRD has supported the Gujarat State Highway investment program with cumulative assistance of US\$280 million to date.

## Partners

The World Bank worked closely and coordinated its work with the **Asian Development Bank (ADB)** and the **Japanese Bank for International Cooperation (JBIC)**, key development agencies whose financing focused on national highways in India. This cooperation was particularly important in discussions related to the sustainability of the state's road network, and particularly in improving maintenance management practices.

The **Government of Gujarat** showed a high degree of commitment and ownership toward the project design, preparation and implementation through a number of actions.

The **Roads & Building Department** of the Government of Gujarat managed the project in a sound professional manner and initiated proactive arrangements during project preparation, including timely preparation of studies and

designs, environmental and forest clearances, and consultation with relevant agencies for support of the Wild Ass Sanctuary.

## Next Steps

With the achievements already demonstrated in the Gujarat State Highways Project, the Government of Gujarat is planning to initiate several projects with its own funds and Public Policy Planning.

The World Bank is carrying out a study (financed by a special trust fund set up jointly by the World Bank and the UK Department for International Development) to learn from the Gujarat best practice. The study entitled Institutional Development and Good Governance in Highway Sector—Learning from Gujarat will determine the key success factors for implementation and sustainability of institutional reforms in the road/highway sector. The World Bank plans to hold a workshop for all Indian states in Gujarat and also a Global Development Learning Network event to share and disseminate the findings of this study.

### LEARN MORE

**Roads and Building Department, Government of Gujarat, project implementing agency**  
<http://www.rnbgujarat.org/>

**Wild Ass Sanctuary, UNESCO Heritage Site**  
<http://whc.unesco.org/en/tentativelists/2105/>