

# ROAD SECTOR IN INDIA (Second Edition)

**Table of Contents:** Release date: December 11, 2008. No. of pages: 435

<p><b>1. EXECUTIVE SUMMARY</b> .....</p> <p><b>2. OVERVIEW</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- Current Scenario</li> <li>- Industry Structure</li> <li>- Policy and Regulatory Framework</li> <li>- Financing Road Projects</li> <li>- National Highways</li> <li>- State Roads</li> <li>- Rural Roads</li> <li>- Other Key Developments <ul style="list-style-type: none"> <li>• Increasing Interest of Private Players</li> <li>• Spiraling Input Prices</li> <li>• Move towards a Uniform Tolling Technology</li> <li>• Recognition of the Importance of Maintenance</li> </ul> </li> <li>- Sector Outlook</li> </ul> <p><b>3. POLICY AND REGULATION</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- Institutional Framework <ul style="list-style-type: none"> <li>• Ministry of Shipping, Road Transport and Highways</li> <li>• Ministry of Rural Development</li> <li>• National Highways Authority of India</li> <li>• National Rural Road Development Agency</li> <li>• Other Key Central Government Bodies</li> <li>• The State Level</li> </ul> </li> <li>- Legal Framework</li> <li>- Policy Initiatives for the Private Sector</li> <li>- Tolling Policy</li> <li>- National Policy on Rehabilitation and Resettlement, 2007</li> <li>- Other Policy Developments</li> <li>- The Way Forward</li> </ul> <p><b>4. FINANCING ROAD PROJECTS</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- Investment Estimates for the Eleventh Plan</li> <li>- Sources of Finance</li> <li>- Forms of Investment</li> <li>- Recent Project Financings</li> <li>- The Way Forward</li> </ul> <p><b>5. PUBLIC-PRIVATE PARTNERSHIPS</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- Concession Award Process for National Highway Projects</li> <li>- MCA for BOT (TOLL) Projects</li> <li>- MCA For O&amp;M of National Highways on an OMT Basis</li> <li>- Financing Initiatives of the Union Government for PPP</li> <li>- Other Central Government Initiatives for Mobilising Private Investment</li> <li>- Legal And Institutional Initiatives of State Governments</li> <li>- Experience So Far</li> <li>- Case studies</li> <li>- Estimated Future Private Investment</li> <li>- The Way Forward</li> </ul> <p><b>6. TOLLING</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- New Tolling Policy</li> <li>- State-Level Tolling Policies</li> <li>- Global Practices for Toll Setting</li> </ul>	<ul style="list-style-type: none"> <li>- Tolling Trends In India</li> <li>- Key Service Providers</li> <li>- Key Issues and Challenges</li> <li>- The Way Forward</li> </ul> <p><b>7. MAJOR CENTRAL SECTOR PROJECTS</b> .....</p> <ul style="list-style-type: none"> <li>- National Highway Development Programme <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Project Scope</li> <li>• Investment and Financing Strategy</li> <li>• NHDP Progress Report</li> <li>• Future Plans</li> <li>• Constraints Faced in Implementation of NHDP</li> <li>• Initiatives Taken to Address Constraints</li> </ul> </li> <li>- Pradhan Mantri Gram Sadak Yojana <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Project Scope</li> <li>• Investment and Financing Strategy</li> <li>• PMGSY Progress Report</li> <li>• Eleventh Plan Targets for PMGSY</li> <li>• Issues Faced and Steps Taken</li> </ul> </li> <li>- Special Accelerated Road Development Programme - North East</li> </ul> <p><b>8. STATE INITIATIVES</b> .....</p> <ul style="list-style-type: none"> <li>- Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh</li> </ul> <p><b>9. COMPANY PROFILES</b> .....</p> <ul style="list-style-type: none"> <li>- DSC Limited</li> <li>- Gayatri Projects Limited</li> <li>- GMR Infrastructure Limited</li> <li>- Hindustan Construction Company</li> <li>- IRB Infrastructure Developers Limited</li> <li>- IL&amp;FS Transportation Networks Limited</li> <li>- Jaiprakash Associates Limited</li> <li>- Larsen and Toubro Limited</li> <li>- Nagarjuna Construction Company Limited</li> <li>- Punj Lloyd Limited</li> <li>- Soma Enterprise Limited</li> <li>- Other Key Players</li> </ul> <p><b>10. FUTURE OUTLOOK</b> .....</p> <ul style="list-style-type: none"> <li>- Introduction</li> <li>- Road Development: Massive Network Development Planned</li> <li>- Investments: Greater Emphasis On Private Sector Participation</li> <li>- Private Sector Financing: Troublesome in the Near Future</li> <li>- Competition: Set to Increase</li> <li>- Other Key Trends</li> </ul> <p><b>11. APPENDIX</b> .....</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## “Road Sector in India” Report: List of Tables

Growth in National Highways	Year-wise Expenditure Incurred on PMGSY (Rs billion)
Details of NHDP	Allocation of Funds from CRF for PMGSY (Rs billion)
Contracts Under Implementation as per their Nationality of the Contract on October 31, 2008)	Multilateral Aid for Projects under the PMGSY
Key Central Government Bodies Impacting the Sector	Availability of Funds under the PMGSY during the Eleventh Plan Period (billion)
Key Acts Governing the Sector	Phase-wise Position of Clearances and Progress of PMGSY (as on July 31, 2008)
Maintenance Levels for All Categories of Roads	Targets and Achievements under the Bharat Nirman Component
Investment Required in National Highways during the Eleventh Plan	Year-wise Break-up of Targets and Achievements under the Bharat Nirman Component
Investment Required in State Roads during the Eleventh Plan	Eleventh Plan Targets for PMGSY
Projected Investment in the Eleventh Five Year Plan (Rs billion)	Key Indicators for Inter-state Comparison
Budgetary Support to the Sector (Rs billion)	Prospects for Investment under NHDP in Andhra Pradesh (as on July 31, 2008)
Borrowings of NHAI (Rs billion)	Progress of CRF Works in Andhra Pradesh (as of November 2008)
World Bank Aid to National Highway Projects	Details of Hudco-assisted Works in Andhra Pradesh
World Bank Aid to State Road Improvement Projects	Stretches under the Andhra Pradesh State Highways Project (Phase II)
ADB's Assistance for National Highway Projects	Projects Completed by APRDC on a PPP Basis
ADB's Assistance for State Road Projects	PPP Projects in the Pipeline in Andhra Pradesh
Cess Funds (minus allocations to the Ministry of Railways) (Rs billion)	PPP Projects Proposed under World Bank Assistance
List of Recent IPOs in the Roads Sector	Phase-wise Status of PMGSY
Details of Key Infrastructure Funds Active in India	Prospects for Investment in NHDP in Bihar
List of Key PE Deals in Unlisted Companies Undertaking Road Projects	Allocations and Expenditure under CRF-assisted Projects in Bihar (Rs million)
Private Equity Investment in Companies Active in the Road Sector	Details of Bihar State Highways Project
Infrastructure Mutual Fund Schemes	Development of State Highways under Rashtriya Sam Vikas Yojana (as on 2, 2008)
Projects Awarded on Standard Bidding Documents under Phase V of the N83	Allocations and Expenditure under Nabard-assisted Projects in Bihar (Rs million)
Status of VGF for Highway Projects	Progress under PMGSY in Bihar (as on July 31, 2008)
Status of PPP Cells and Policy at the State-level (as of June 2008)	Prospects for Investment under NHDP in Chhattisgarh
Status of PPP in the NHDP (as on July 31, 2008)	Progress of CRF Works in Chhattisgarh
List of National Highway Projects Completed under the NHDP (as of July 2008)	Details of Ongoing Road Works under CSRSDDP
Status of PPP in the NHDP in 2006 and 2007	Stretches under the Chhattisgarh Accelerated Road Development Programme
NHAI Contracts with Negative Grants	Details of BOT Projects in Chhattisgarh
Projects Awarded on the Revenue-Sharing Mechanism under the NHDP	Roads Developed by Private Companies in Chhattisgarh
Foreign Participation in NHDP	Details of Nabard-assisted Projects in Chhattisgarh
Private Investments at the State-level (as of June 2008)	Phase-wise Status of the PMGSY in Chhattisgarh
Risk-Sharing Mechanism for Delhi-Gurgaon Expressway Project	Details of ADB Loan to Chhattisgarh for PMGSY Works
Debt Contribution by Lenders for the Delhi-Gurgaon Expressway Project	Prospects for Investment under NHDP in Gujarat
Details of the Delhi-Gurgaon Expressway Project	Status of State Roads in Gujarat (km)
Project Details of the Rajasthan Mega Highways Project	Progress of Works under CRF in Gujarat
Contribution to Senior Debt for Financial Closure of the Rajasthan M Highways Project	Details of Widening and Strengthening Works under the Gujarat State Highways Project
Financing Plan of NHDP (2005-15) (2007 prices) (Rs billion)	Details of Repair and Maintenance of Stretches' Component under Gujarat State Highways Project
Planning Commission Estimates for Private Investment under NHDP (Rs billion)	Toll Rates on Bridges in Gujarat
Planning Commission Estimates for Private Investment in State Roads	Toll Rates on Roads in Gujarat
Private Investment Planned by Key States (as of June 2008)	Projects Completed and Under Implementation on a PPP Basis in Gujarat
Tolling Rates Prescribed for National Highways under the Tolling Policy	PPP Projects in the Pipeline in Gujarat (as of June 2008)
Base Rate of Fee (Rs per vehicle per trip)	PPP Projects Planned till 2020 in Gujarat
Basic Toll Rates for Highways in Punjab	Progress of Nabard-assisted Works in Gujarat
Basic Toll Rates on Bridges, RoBs and RuBs in Punjab	Phase-wise Status of PMGSY in Gujarat
Global Toll Setting Criteria	Prospects for Investment under NHDP in Haryana
Mechanisms for Adjusting Tolls Globally	Details of Road Improvement Works in Haryana
Average Toll per km in European Union Countries (euros per km)	Details of RoB Works in Haryana
Road Length Tolerated under NHDP	Progress of Road Works in Haryana (as on September 2007)
Toll Collections under NHDP	Progress of CRF Works in Haryana (till November 2008)
Toll Revenue of Four Key State Road Projects (Rs million)	Progress under Inter State Connectivity Scheme in Haryana
Toll Rates for IT Corridor in Chennai	Phase-wise Status of the PMGSY in Haryana
Project Scope of NHDP	Sanctioned Works in Himachal Pradesh under the CRF Scheme
Cost of Phases under the NHDP (2005-15) (2007 prices)	Upgradation Component of Himachal Pradesh State Roads Project
Sources of Financing for NHDP (Rs billion)	Recommended List of Priority Roads for Future Investments in Himachal Pradesh
Externally-assisted Projects under NHDP (as of June 30, 2008)	Progress of Nabard-assisted Works in Himachal Pradesh
Summary of BOT (toll) Projects under NHDP (as on September 30, 2008)	Phase-wise Progress under PMGSY in Himachal Pradesh
Summary of BOT (annuity) Projects under NHDP (as on September 30, 2008)	Prospects for Investment under NHDP in Karnataka
Status of NHDP (as of June 30, 2008) (km)	Progress of Road Works in Karnataka during the Tenth Plan
Expenditure Details on NHDP (Rs billion)	Progress of KSHIP (as of May 2008)
Summary of Sections of NHDP under Levy of User-fee (km)	Projects under KRDCCL (as of July 2008)
Status of Golden Quadrilateral (as of June 2008) (km)	Completed Projects under the BDA
Private Sector Participation in GQ (as of June 30, 2008)	Status of Land Acquisition for BMIC Project (acres)
Stretches under Phase V of the NHDP	Progress of Nabard-assisted Works in Karnataka (as on June 30, 2008)
Top Three Bidders for Five Contracts of NHDP Phase V	Phase-wise Status of the PMGSY
Toll Collections on the Awarded Stretches	Prospects for Investment under NHDP in Kerala
Prospects for Investment under NHDP in the Near Future	Details of Road Development Works in Kerala
Status of Land Acquisition under GQ (as of June 30, 2008)	Road Stretches Selected for Upgradation in Phase I
Status of Land Acquisition under NSEW corridors (as of June 30, 2008) (hectares)	Road Projects of the Roads and Bridges Development Corporation
Contracts Terminated by NHAI	Phase-wise Status of PMGSY in Kerala
Project Scope of PMGSY	Prospects for Investment under NHDP in Madhya Pradesh
Project Cost Estimates of PMGSY	

## “Road Sector in India” Report: List of Tables

Progress of CRF Works in Madhya Pradesh	Progress under CRF in Uttar Pradesh
Particulars of ADB-assisted Project in Madhya Pradesh	Ongoing Works under Uttar Pradesh State Roads Project (km)
Stretches under Phase I of the ADB-assisted Programme in Madhya Pradesh	Year-wise Outlay and Expenditure during the Tenth Plan (Rs billion)
Progress under Phase II of the ADB-assisted Programme in Madhya Pradesh	Progress under the Inter State Connectivity Scheme in Uttar Pradesh
Progress under Phase III of the ADB-assisted Programme in Madhya Pradesh	Projects Planned to be taken up on a PPP basis by Uttar Pradesh Highway Authority
List of Stretches to be Developed under the Madhya Pradesh Road S Program II	Details of Future PPP Projects in Uttar Pradesh
Cash Contract Projects in Madhya Pradesh (as of September 2008)	Traffic and Revenue on the Delhi-Noida Toll Bridge
Completed BOND-BOT Projects (as of September 2008)	Details of Ganga Expressway Project in Uttar Pradesh
BOND-BOT Projects in Progress	Phase-wise Status of PMGSY in Uttar Pradesh
Upcoming BOT Projects in Madhya Pradesh	Details of the World Bank Loan to Uttar Pradesh for PMGSY Works
Current Toll Rates in Madhya Pradesh	Project Portfolio of DSCL
Tolls Collected by MPRDC in 2006 and 2007 (Rs million)	Financial Performance of DSC Limited (Rs million)
Phase-wise Status of the PMGSY in Madhya Pradesh	Project Portfolio of GPL
ADB-funded PMGSY Projects in Madhya Pradesh	Projects under Implementation of GPL
Prospects for Investment under NHDP in Maharashtra	Financial Performance of GPL (Rs million)
Project Cost and Expenditure Incurred by MSRDC (as on December 31, 2004)	Status of Projects under Implementation by GMR Infrastructure Limited a March 31, 2008)
Progress under CRF in Maharashtra (as on July 31, 2008)	Details of Financial Closure of Projects under Implementation by Infrastructure Limited (Rs million)
Details of Hudco-assisted Projects in Maharashtra	Financial Performance of GMR Infrastructure Limited (Rs billion)
Integrated Road Development Programme in Cities of Maharashtra	Road Sector Contribution to GMR's Financials (%)
Some of the other Completed PPP projects in Maharashtra	Project Portfolio of HCC
Other PPP projects under Implementation/Pipeline in Maharashtra	Financial Performance of HCC (Rs billion)
Details of Nabard-assisted Projects in Maharashtra	Project Portfolio of IRB Infrastructure Developers Limited
Phase-wise Status of PMGSY in Maharashtra	Order Book of Modern Road Makers Private Limited (E&C Division of IRB)
Prospects for Investment under NHDP in Orissa	Financial Performance of IRB Infrastructure Developers (Rs million)
Financial Targets and Achievements for Development of State Roads in O (Rs million)	Financials of IRB Group's Subsidiaries (Rs million)
Details of Projects under ORSP	Project Portfolio of ITNL
PPP Projects Planned in Orissa (June 2008)	Financials of ITNL (Rs million)
Phase-wise Status of the PMGSY in Orissa	Details of ITNL's SPVs
Status of ADB-funded Works under PMGSY	Project Portfolio of JAL
Prospects for Investment under NHDP in Punjab	Financial Performance of JAL (Rs billion)
Progress of CRF Works in Punjab (as on June 30, 2008)	Key Completed Projects of L&T
Details of Rehabilitation Works under Phase I of the Punjab State Road S Program	Key Projects under Implementation by L&T
Details of Upgradation Works under Phase I of the Punjab State Road S Program	Financials of L&T (Rs billion)
Details of Periodic Maintenance Works under Phase I of the Punjab State Sector Program	Project Portfolio of NCCL
Details of EPC Works Undertaken by PIDB in Punjab (as on November 5, 2007)	Financial Performance of NCCL (Rs billion)
Projects Undertaken by the PIDB (as on November 5, 2008)	Revenue from the Road Sector for NCCL (Rs billion)
Projects to be Undertaken by PIDB on a PPP Basis in Punjab (as on Novemb 2008)	Details of projects SPVs of NCCL/IHL
RIDF Road Works in Punjab	Project Portfolio of PLL
Phase-wise Status of PMGSY in Punjab	Financial Performance of PLL (Rs billion)
Prospects for Investment under NHDP in Rajasthan	Project Portfolio of Soma Enterprise Limited
Progress under CRF in Rajasthan (as on July 31, 2008)	Financial Performance of Soma Enterprise Limited (Rs billion)
Progress of CRF Works in Rajasthan in 2008-09 (as on July 31, 2008)	Major Completed Projects of BSCPL
Progress of Missing Link Project in Rajasthan (as on July 31, 2008)	Financial Performance of BSCPL (Rs billion)
Year-wise Collection of Cess under SRF in Rajasthan (Rs million)	Projects under Implementation of KMC Constructions Limited
Year-wise Expenditure under SRF in Rajasthan (Rs million)	Project Portfolio of Madhucon Projects Limited
Progress of Works under SRF in Rajasthan (as on July 31, 2008)	Financial Performance of Madhucon Projects Limited (Rs billion)
Targets for Works under SRF in 2008-09 in Rajasthan	Project Portfolio of Maytas Infra Limited
Status of BOT Projects in Rajasthan (as on July 31, 2008)	Financial Performance of Maytas Infra Limited (Rs billion)
Update on the Rajasthan Mega Highways Project (as on July 31, 2008)	Ongoing Projects of Patel Engineering Limited
Details of the Second Mega Highways Project in Rajasthan	Financial Performance of Patel Engineering Limited (Rs billion)
Progress of RIDF XII Works in Rajasthan (as on July 31, 2008)	Road Sector Revenues of Patel Engineering Limited
Progress of RIDF X works in Rajasthan (as on July 31, 2008)	Project Portfolio of Progressive Constructions Limited
Progress of RIDF XI Works in Rajasthan (as on July 31, 2008)	Financial Performance of Progressive Constructions Limited (Rs billion)
Progress of RIDF XIII works in Rajasthan (as on July 31, 2008)	Project Portfolio of Reliance Infrastructure Limited
Progress of RIDF XIV works in Rajasthan (as on July 31, 2008)	Financial Performance of Reliance Infrastructure Limited (Rs billion)
Targets and Achievement of Works under Nabard in Rajasthan in 2008-09	Details of BOT Projects of Sadbhav Engineering Limited
Phase-wise Status of PMGSY in Rajasthan	Financial Performance of Sadbhav Engineering Limited (Rs billion)
Details of the World Bank Loan to Rajasthan for PMGSY Works	Financial Performance of Simplex Infrastructures Limited (Rs billion)
Prospects for Investment under NHDP in Tamil Nadu	Prospects for Investment under the NHDP in the Near Future
Details of the Circular High Speed Transportation Corridor in Chennai	State-wise Investment in NHDP
Phase-wise Status of PMGSY (as on July 31, 2008)	Inter-state Expressways Planned to be developed during the Eleventh Period
Prospects for Investment under NHDP in Uttarakhand	State Road Network Planned to be developed in the Eleventh Plan Period 377
Road Sector Allocations of Uttarakhand PWD (Rs billion)	Eleventh Plan Targets for PMGSY
Toll Rates Applicable in Uttarakhand	Investment Required in National Highways during the Eleventh Plan
Progress under CRF in Uttarakhand (as on March 31, 2008)	Planning Commission Estimates for Private Investment under NHDP
Financing Plan of the Uttarakhand State Road Investment Program	Fund Requirement for NHDP (2005-15) (2007 prices) (Rs billion)
Nabard-assisted Works in Uttarakhand	Investment Required in State Roads during the Eleventh Plan
Phase-wise Status of PMGSY in Uttarakhand	Planning Commission Estimates for Private Investment in State Roads (Rs bil380)
Prospects for Investment under NHDP in Uttar Pradesh	Private Investment Planned by Key States (as of June 2008)
Physical Targets and Achievements during the Tenth Plan Period in Pradesh	Availability of Funds under the PMGSY during the Eleventh Plan Perio billion)
Physical Targets for Road Development during the Eleventh Plan Period in Pradesh	

**“Road Sector in India” Report Order Form**

I would like to purchase "Road Sector in India" for Rs 40,000 (\$923).

I am enclosing a cheque / demand draft for Rs. (USD) \_\_\_\_\_, vide  
cheque / demand draft no. \_\_\_\_\_ drawn on \_\_\_\_\_  
dated \_\_\_\_\_ in favour of "India Infrastructure Publishing Pvt. Ltd."

Signature

---

Name (Block Letters) \_\_\_\_\_  
Designation \_\_\_\_\_  
Company \_\_\_\_\_  
Mailing Address \_\_\_\_\_  
\_\_\_\_\_  
Telephone \_\_\_\_\_ Mobile \_\_\_\_\_  
Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

**Wire transfer details:**

Beneficiary	<b>India Infrastructure Publishing Pvt. Ltd.</b>
Bank Name	<b>ABN AMRO BANK N.V.</b>
Address	<b>M-6, Hauz Khas New Delhi-110 016, India</b>
Account No.	<b>1050338</b>
Swift Code:	<b>ABNAINBBDEL</b>
IFSC Code:	<b>ABNA0100327</b>

**Contact details:**

**Sonia Jain**  
**Associate Information Products**  
**India Infrastructure Publishing Pvt. Ltd.**  
**B-17, Qutab Institutional Area.**  
**New Delhi - 110 016. India**  
**Tel: 91 11 46078365, 41034600, 41034601**  
**Mobile: 09868834686**  
**Fax: 91 11 2653 1196**

---