



## Progress Report on Tranche Release

---

Program Number: 34263  
Loan Number: 1958  
March 2006

### India : Madhya Pradesh State Roads Sector Development Program

## CURRENCY EQUIVALENTS

(as of 13 March 2006)

Currency Unit	–	Indian rupee/s (Re/Rs)
Re1.00	=	\$0.0225
\$1.00	=	Rs44.50

## ABBREVIATIONS

ADB	–	Asian Development Bank
BOT	–	build-operate-transfer
ERR	–	electronic road register
HDM	–	highway development and management
LRP	–	Labor Rationalization Program
GOMP	–	government of Madhya Pradesh
MP	–	Madhya Pradesh
MPRDC	–	Madhya Pradesh Road Development Corporation
PWD	–	Public Works Department
SHA	–	state highway authority
SHZ	–	State Highway Zone
TA	–	technical assistance
VRS	–	voluntary retirement scheme

## NOTES

- (i) The fiscal year (FY) of the Government ends on 31 March. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2003 ends on 31 March 2003.
- (ii) In this report, "\$" refers to US dollars.

<b>Vice President</b>	L. Jin, Operations Group 1
<b>Director General</b>	K. Senga, South Asia Department (SARD)
<b>Director</b>	T. Kondo, Country Director, INRM
<b>Team leader</b>	A. Motwani, Project Implementation Officer, INRM
<b>Team member</b>	A. Bajaj, Project Implementation Officer, INRM

## CONTENTS

	<b>Page</b>
I. INTRODUCTION	1
II. IMPLEMENTATION PROGRESS UNDER THE PROGRAM	1
A. Progress Under the Second Tranche	1
B. GOMP Initiatives Beyond the Measures Under the Program	7
III. CONCLUSION	7
IV. THE PRESIDENT'S RECOMMENDATION	7
APPENDIX	
Compliance with Second Tranche Release Conditions	9

## I. INTRODUCTION

1. Two loans totaling \$180 million (\$30 million for the Program,<sup>1</sup> and \$150 million for the Project<sup>2</sup>) were approved by the Asian Development Bank (ADB) on 5 December 2002 to support state road sector reforms and rehabilitation of the state road network in Madhya Pradesh (MP). ADB also approved a technical assistance<sup>3</sup> (TA) grant to help the government of MP (GOMP) implement the Program. The TA grant was further increased by \$600,000 in April 2005 to help GOMP complete the program measures and to provide significant day-to-day technical support to ensure the sustainability of the newly formed institutions.

2. The main objectives of the Program are to establish an institutional framework for more effective and efficient management of state roads. The Program was scheduled to be implemented over 30 months and completed by June 2005. The first tranche (\$12 million) was released on 18 December 2002 upon fulfillment of eight tranche release conditions.

3. The second tranche of \$18 million was originally scheduled for release by June 2005 upon compliance with five tranche release conditions and substantial compliance with a sixth condition (constituting 20 program measures stated in the policy matrix). The objectives of five conditions are (i) establish a state highway authority (SHA) as a self-contained and fully functional agency under the direction of the Public Works Department (PWD) to take over the management of state highways, (ii) staff reduction through a voluntary retirement scheme (VRS) for permanent labor and through the Industrial Dispute Act 1947 for nonpermanent employees, (iii) improve the road maintenance system, (iv) strengthen the overloading control program, and (v) develop an improved road safety program. The sixth condition relates to reengineering business processes and implementing other road sector reforms. The loan closing date was extended twice by 4 months each to allow completion of measures. The current loan closing date is 28 February 2006.

4. The Program builds on the following policy themes: (i) good governance in state road sector management and administration and road sector resource management, (ii) road asset preservation and management, (iii) capacity building to improve institutional effectiveness and efficiency, and (iv) establishment of a favorable regulatory framework for private sector participation. Parallel to road sector reforms, about 1,700 km of deteriorated and damaged state roads are being rehabilitated under the Project, which is expected to be completed by December 2007. The loan closing date is June 2008.

## II. IMPLEMENTATION PROGRESS UNDER THE PROGRAM

### A. Progress Under the Second Tranche

5. Below is a brief description of implementation status of the conditions. For a more detailed description, see the Appendix.

---

<sup>1</sup> ADB. 2002. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to India for the Madhya Pradesh State Roads Sector Development Program*. Manila. (Loan 1958-IND, approved in December 2002.)

<sup>2</sup> ADB. 2002. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to India for the Madhya Pradesh State Roads Sector Development Project*. Manila. (Loan 1959-IND, approved in December 2002.)

<sup>3</sup> ADB. 2002. *Technical Assistance to India for Institutional Strengthening and Capacity Building for the Madhya Pradesh State Road Sector*. Manila. (TA 4013-IND, approved on 5 December 2002, for \$1,500,000.)

**1. The State Highway Zone (SHZ) shall have been transformed into a SHA, as a self-contained and fully functional agency under the direction of PWD, GOMP, to take over completely the management of the state highways in the territory of the State.**

6. **Complied with.** Recognizing the need to modernize the road management practices and procedures, the creation of SHZ/SHA has been agreed under the Program. To establish a separate entity specializing in management of state roads, the SHZ was to be operationalized within PWD as an interim measure, to develop, design, and establish business processes for various road management functions for adoption by the SHA. GOMP created a wholly owned government company, the Madhya Pradesh Road Development Corporation Limited (MPRDC), incorporated under the Companies Act 1956 on 14 July 2004, with an authorized capital of Rs200 million. GOMP provided Rs100 million as paid-up capital in the state budget for fiscal year (FY) 2005. GOMP had initially entrusted MPRDC with the responsibility of the implementation of the rehabilitation of state roads under the ADB-funded Project and about 2,000 km of roads being rehabilitated through private sector participation under a build-operate-transfer (BOT) contract (referred to by GOMP as BOT or bond roads). The Madhya Pradesh Highway Bill 2004 was passed by the state legislature in July 2004 and received assent from the President of India on 20 June 2005. Consequently, the State Highway Act became effective and operative on 1 October 2005. MPRDC was notified as the SHA on 19 October 2005, and entrusted with the responsibility for all 8,333 km of state highways in MP.

7. Fully functional business processes have been developed in MPRDC/SHA, relating to, among others, systems for (i) financial management and accounting; (ii) planning, budgeting, and programming; (iii) road safety; (iv) a management information system; (v) procurement; (vi) asset management; and (vii) human resources. The responsibilities, organizational structure, functions, and staffing of MPRDC/SHA are consistent with the Program. MPRDC/SHA and PWD have undergone extensive training and capacity-building programs under the TA to adapt the new business processes and modern road management systems. The TA has also provided significant day-to-day technical support to ensure sustainability of the new institution.

**2. The State shall have reduced about 7,800 permanent employees through a VRS and about 8,000 nonpermanent employees through the Industrial Dispute Act 1947, both in accordance with the Labor Rationalization Program (LRP).<sup>4</sup>**

8. **Partially Complied with.** GOMP's plan under the Program—to reduce (i) 7,800 permanent PWD employees through VRS, and (ii) 8,000 nonpermanent PWD employees through compulsory retrenchment, was formulated in 2002 in line with GOMP's staff reduction scheme introduced in February 2000, which required all departments to reduce their strength by 30% through a combination of natural attrition, reduction in sanctioned posts, and rationalization measures. GOMP has also frozen recruitment in PWD for the last 20 years.

9. Significant developments have occurred during the implementation of the Program, which have necessitated a change in the course of action by GOMP in addressing and meeting the objective of the LRP. These include (i) legal suits filed in the High Court by some of the 22,000 daily wage earners retrenched by GOMP across various state departments under an earlier action, which subsequently led to a court decision to overturn GOMP's retrenchment action; and (ii) a shift in GOMP's strategy on staff rationalization through compulsory

---

<sup>4</sup> Reduction of about 4,000 permanent employees through a VRS and the Industrial Dispute Act 1947 under the LRP, acceptable to ADB, is included as an interim milestone of a program measure under the sixth condition.

retrenchment of nonpermanent employees. Consequent to a shift in GOMP's strategy, it issued an order to take back the retrenched nonpermanent employees, subject to their meeting the eligibility criteria.

10. In view of the increased backlog of maintenance and resultant deterioration of roads, GOMP initiated a massive road rehabilitation and maintenance program since the Program was formulated, and accorded highest priority to road development. It has increased the budgetary allocation for road rehabilitation and maintenance by more than 50% over the last 2 years. The increased road rehabilitation and maintenance activities led GOMP to reassess the required strength of permanent and nonpermanent employees.

11. PWD updated the figures for surplus strength of permanent employees based on staff requirement analysis, reduction in the surplus since 2002 by natural attrition, and departmental promotions before operationalizing the VRS under the Program. About 1,700 permanent PWD employees have been reduced since 2002 through natural attrition. The identified surplus staff was also categorized under various posts in PWD that were classified as "surplus category". GOMP's revised figure for surplus permanent employees is 2,152. The state cabinet approved the operationalization of the VRS for surplus employees on 16 October 2005, and GOMP notified the VRS on 30 November 2005. The VRS was opened to eligible PWD employees on 1 January 2006 for 6 months. GOMP designed elaborate procedures for receipt, verification, and disposal of applications under the VRS. It has formulated a social safety net program, including job counseling, training, and information services. An information brochure has been prepared for VRS applicants. GOMP has designed the formats for the socioeconomic survey of the VRS applicants. The survey is being conducted for the employees while they are opting for VRS.

12. VRS is the voluntary option being offered to the permanent employees of PWD by GOMP. Since the VRS is voluntary in nature, the actual reduction in the number of permanent employees specified under the tranche release condition cannot be ensured, even upon the completion of the entire process. Cabinet approval to make the VRS operationally effective and open to eligible PWD employees is considered to be the last milestone for monitoring compliance with this condition. GOMP hopes that a substantial number of employees will opt for the VRS.

13. GOMP reassessed the number of nonpermanent employees required for increased road maintenance and rehabilitation based on the updated maintenance standards established by the Ministry of Shipping, Road Transport and Highways in 2001. GOMP, using the norms for labor force for the volumes of tasks for road maintenance, has concluded that 21,725 nonpermanent employees are needed, but only 19,661 are available. The intended reduction of 8,000 nonpermanent employees under the Program was based on GOMP's earlier strategy to rationalize labor through compulsory retrenchment. Although GOMP has now indicated a shortfall in the available strength of non permanent employees, it is not engaging more nonpermanent staff and continues to freeze hiring. It has undertaken a staff audit to determine the age profile and deployment status of nonpermanent employees to devise suitable programs for the effective utilization and analysis of natural attrition process. An analysis based on the staff audit indicates that 8,000 nonpermanent employees will be reduced through natural attrition by 2009–2010, and that natural attrition will be more cost-effective than compulsory retrenchment under the Industrial Dispute Act 1947. GOMP's freeze on hiring will gradually phase out all nonpermanent staff over the next few years through natural attrition.

14. With the objective of a shift towards rehabilitation and maintenance of roads through private sector participation, GOMP has been awarding contracts for rehabilitation and

maintenance of roads through BOT contracts for about 2,000 km of state highways, since 2001. However, those 2,000 km roads represent only a very small component of the vast network of 64,083 km roads vested with PWD. A shift to maintenance by the private sector for the entire road network will have to be gradual and over several years because the institutional capacities, business processes, and systems developed for MPRDC/SHA will have to be replicated and institutionalized for the road network vested with PWD. Until a shift to road maintenance through private sector participation for the road network vested with PWD is effected, and the non permanent employees in PWD are phased out through natural attrition, the current system of road maintenance using non permanent employees would have to be continued. GOMP has committed that the 1,700 km of roads being rehabilitated under the Project, and roads being rehabilitated using other funds will be maintained through private sector participation upon completion. In synchrony with the reduction of nonpermanent staff through natural attrition, maintenance activities through private sector participation will also be stepped up and extended to the remaining road network.

15. Recognizing the low productivity of the nonpermanent employees, GOMP has initiated several innovative actions for effective utilization of those employees available with PWD that are aimed at improving efficiencies in the PWD workforce. The actions taken by GOMP are (i) substantially increasing the budget for maintenance; (ii) piloting effective and efficient road maintenance using nonpermanent employees on a road stretch to revive the earlier system of road maintenance for the entire network, using current maintenance norms; (iii) staff audit to determine the age profile and deployment status of nonpermanent employees to devise suitable programs for the effective utilization and analysis of natural attrition; (iv) putting in place adequate control and monitoring systems to disburse wages to nonpermanent employees; and (v) segregating the allocation for labor (including nonpermanent employees) and maintenance under the state budget's road and bridge repair and maintenance. GOMP is developing other plans and monitoring mechanisms to effectively and productively use nonpermanent employees. With an increased budget for road maintenance of Rs2,700 million (about \$61 million), the cost of labor has significantly reduced to about 28% of the maintenance budget for FY2006. In accordance with the recommendations of the Twelfth Finance Commission, GOMP will receive an annual grant of Rs1,460 million (about \$33 million) from the central Government for road maintenance for 4 years, in addition to its own budgetary allocation.

16. The original purpose of this conditionality was to reduce permanent and nonpermanent employees to the level required for road maintenance. Although there has been a shift in GOMP's strategy on staff rationalization through compulsory retrenchment of nonpermanent employees, the reduction of 8,000 nonpermanent employees contained in the LRP, approved by GOMP in 2002, is no longer relevant under the current circumstances. Owing to intensification of road rehabilitation and maintenance activities in the recent past, GOMP found that much lesser number of permanent and non-permanent employees is redundant. As the Program's eventual goal is to maintain state roads in a sustainable manner, the reassessed number of permanent and nonpermanent employees should match the volumes of tasks for road maintenance. Compliance with this conditionality can, therefore, be judged based on the reassessed number of permanent and nonpermanent employees and the steps taken by GOMP to meet the objectives of the LRP and the Program. GOMP can be considered to have adhered to the spirit of this condition in view of the (i) reduction of about 1,700 permanent employees through natural attrition since 2002, (ii) actions taken by GOMP for the reduction of surplus permanent employees through the VRS, (iii) continuation of the recruiting freeze in PWD, (iv) anticipated reduction of 8,000 nonpermanent employees through natural attrition by 2009–2010 and gradual phasing out of all nonpermanent staff over the next few years through natural attrition, (v) increased budget for maintenance, and (vi) measures to effectively use and improve

the efficiency of nonpermanent employees in PWD for road maintenance. However, in view of the specific numbers for the reduction of permanent and nonpermanent employees originally stated under this condition in the loan agreement, the conditionality is regarded to be partially complied with.

**3. The State shall have established an improved road maintenance system, satisfactory to ADB, including adoption of Highway Development and Management-4 (HDM-4) software for planning and budgeting road maintenance expenditures.**

17. **Complied with.** The Program requires GOMP to (i) devise a performance-based road maintenance scheme, (ii) update the road maintenance manual in line with international standards, and (iii) adopt HDM-4 to plan and budget road maintenance expenditures.

18. MPRDC has adopted an improved road maintenance system. It has finalized a performance-based road maintenance scheme and prepared the necessary documents for the implementation of the scheme. GOMP has included the scheme's extensive monitorable performance-based parameters in its BOT road rehabilitation projects. The BOT contracts cover a period of 10–15 years, which would optimize cost reduction and maximize efficiencies. MPRDC/SHA will outsource the maintenance of roads being rehabilitated under the Project and use the performance-based scheme when rehabilitation is complete. MP was among the first states to take up BOT road rehabilitation on such a scale. GOMP had started the projects before ADB assistance. Through ADB program assistance, the TA consultants have strengthened the documentation and the capacity of MPRDC/SHA to manage BOT contracts (including monitoring of performance-based parameters). GOMP now needs to further extend these institutional capacities to PWD.

19. MPRDC/SHA has updated the road maintenance manual in line with international standards. It has adopted HDM-4 as planning and analytical tool, and the system for road sector planning and budgeting of road maintenance expenditures has been set up based on HDM-4. MPRDC/SHA has developed a Microsoft access-based electronic road register (ERR) and an interface to HDM-4. The system has been made operational, and it can generate reports for management information and decision making, and produce a program of capital and periodic maintenance works to optimize use of funds with a constrained budget. The system has been pilot-tested with real data for selected zones. MPRDC is expected to use the system from the next financial year for planning and budgeting for road maintenance expenditures for the state highway entrusted to it. Through specialized programs and day-to-day technical support, MPRDC/SHA staff have been trained extensively to use HDM-4, ERR, and the road management system. MPRDC/SHA has now been training PWD staff in data collection, data entry, and the use of ERR for management information and decision making.

**4. The State shall have approved and implemented an action plan, acceptable to ADB, for strengthening enforcement of the overloading control program.**

20. **Complied with.** The legal framework to control overloading of vehicles exists. The weaknesses in the enforcement of overloading control had been the lack of inspection, surveillance, and enforcement system. GOMP has drawn up a phased statewide program to strengthen and improve infrastructure at state border check posts to strengthen overloading control. GOMP is undertaking a rigorous inspection at the border check post locations. It has allocated funds for 10 electronic weighbridges and surveillance mechanisms, which MPRDC/SHA is installing at the state borders and key locations on the road network. Private



investors are being invited to install weighbridges at another 26 locations; GOMP will provide State support to operate them. As an added precaution against enforcement officers' laxity and corruption, closed-circuit television cameras are being installed and connected through satellite to the nearest road transport offices, allowing weighing operations to be monitored remotely. Collection of the composition fee has increased as a result of these efforts:<sup>5</sup> in FY2004, it was 27% higher than in FY2003, and in FY2005, 60% higher than in FY2004. GOMP recently increased the composition fee by more than 100%, thus sensitizing the truck operators and discouraging them from plying overloaded trucks. In November 2005, the Supreme Court of India passed a judgment, banning overloading of trucks to prevent premature damage to roads, and mandated that excess cargo would be offloaded at the risk and cost of vehicle owner before the truck would be permitted to continue its journey, even after payment of penalty. GOMP's efforts are expected to eventually reduce vehicle overloading.

**5. The State and the PWD, GOMP, shall have developed an accident investigation and prevention manual for highway engineers in accordance with internationally recognized standards and distribute such manual to the highway engineers for implementation.**

21. **Complied with.** MPRDC/SHA has reviewed and modified the accident investigation and prevention manual prepared for the Ministry of Shipping, Road Transport and Highways under ADB TA 2001-IND<sup>6</sup> to reflect local experiences and to adapt it to the road network under GOMP. The accident investigation and prevention manual under TA 2001-IND was prepared in 1996 to guide the highway authorities and engineers in reducing the road accidents and fatalities in India. As the manual was the first attempt to produce such guidelines in India based on sound practices in other countries, some changes were required to reflect new experiences. The manual will improve the system for recording accidents and analyzing their causes, which will eventually reduce accidents. GOMP is piloting the use of the manual for 3 months. The experiences from pilot implementation and any feedback from transport and traffic police departments during the 3 months will be incorporated into the manual. Copies of *Towards Safer Roads in Developing Countries* by the Transport Research Laboratory of the United Kingdom have been procured and disseminated to PWD and MPRDC officers under the TA.

**6. Program measures stated in the policy matrix requiring substantial compliance**

22. **Substantially Complied with.** This condition requires substantial compliance with 20 measures stated in the Program's policy matrix. GOMP has fully complied with 15, substantially complied<sup>7</sup> with 4, and partially complied<sup>8</sup> with 1. This condition has been substantially complied with.

<sup>5</sup> Composition fees are paid as an alternative to criminal proceedings and fines; they are also known as "compounding fees".

<sup>6</sup> ADB. 1993. *Technical Assistance to India for Road Safety*. Manila. (TA 2001-IND, approved in November 1993, for \$210,000.

<sup>7</sup> Although three of the program measures stated in the policy matrix under this condition were not relevant to MP, GOMP's actions fully meet the objectives of the stated program measure. However, in view of a specific statement under those program measures, the compliance status is regarded as "substantially complied with".

<sup>8</sup> Partial compliance is for reductions of about 4,000 permanent employees through the VRS and the Industrial Dispute Act 1947 under the LRP, acceptable to ADB. The reasons are stated in the preceding section as part of the review for the second key condition related to labor rationalization.

23. The other program measures primarily relate to setting up systems in MPRDC for (i) financial management, (ii) road management, (iii) human resource management, (iv) road maintenance, and (v) procurement. The measures include identifying sources for road sector revenue, studying the feasibility of a state road maintenance fund to be managed by the SHA, and enhancing road safety and the framework for private sector participation. A brief description of the status on compliance with other program measures is in the Appendix.

## **B. GOMP Initiatives Beyond the Program Measures**

24. Owing to the Program's catalytic effect and the momentum gained by MPRDC/SHA during implementation, GOMP and MPRDC/SHA have initiated several measures and initiatives that go beyond the originally anticipated program outcomes. Some important measures follow:

- (i) MPRDC is undertaking design, development, installation, and implementation of a corporate management information system.
- (ii) PWD has initiated a pilot project to implement the ERR and the HDM-4-linked road management system (RMS) for major district roads in three zones: Indore, Ujjain, and Sagar. The staff in these zones are being trained to collect data and to manage and create databases, after which RMS modules will be developed.
- (iii) PWD has asked TA consultants to help train its engineers in computerized project management. Four training programs are planned up to February 2006. The use of MS Project 2003 software will be encouraged to monitor road and bridge rehabilitation projects.
- (iv) GOMP's Transport Department and MPRDC have asked TA consultants to help design a procurement and contracting arrangement for inviting private sector investments to manage interstate border check posts.

## **III. CONCLUSION**

25. GOMP has achieved commendable success in (i) fully complying with four of the five key second-tranche release conditions, (ii) partially complying with the remaining one key condition, and (iii) meeting the requirement of substantial compliance with the sixth condition (constituting 20 program measures in the policy matrix). Due to significant developments during the implementation of the Program, GOMP could not achieve full compliance to the tranche release condition related to labor rationalization. In view of the actions taken by GOMP it is considered that it has met the objective and spirit of that condition. However, in view of the specific numbers for the reduction of permanent and nonpermanent employees originally stated under this condition in the loan agreement, the conditionality is regarded to be partially complied with.

26. Owing to the Program's catalytic effect and momentum gained by MPRDC/SHA, GOMP and MPRDC/SHA have initiated several measures and initiatives that go beyond the originally anticipated program outcomes. Setting up a fully functional and staffed SHA with redesigned business processes and the progress made towards allowed effective and efficient use of PWD staff for road maintenance has been a major achievement under the Program. GOMP is committed to continue the reforms initiated and completed under the Program and has already taken steps to further them.

## **IV. THE PRESIDENT'S RECOMMENDATION**

27. In view of the substantial progress made in the implementation of the overall Program and (i) the full compliance with 4 of the 5 key second tranche release conditions; (ii) the partial

compliance with one key second tranche release condition; and (iii) fulfillment of the requirement of substantial compliance with the 6<sup>th</sup> condition (constituting 20 program measures stated in the policy matrix), under the Program, the President recommends that the Board approve:

- i. a waiver of full compliance with one tranche release condition based on achievement of partial compliance; and
- ii. the release of second tranche of \$18 million of the Madhya Pradesh State Roads Sector Development Program loan.

## COMPLIANCE WITH SECOND TRANCHE RELEASE CONDITIONS

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
<b>A. Key second tranche release conditions requiring compliance</b>		
Accomplish institutional reform and capacity building	State Highway Zone (SHZ) shall have been transformed into State Highway Authority (SHA), as a self-contained and fully functional agency under the direction of PWD, GOMP, to take over completely the management of the state highways in the territory of the State.	<p><b>Complied With.</b> Recognizing the need to modernize the road management practices and procedures, the creation of SHZ/SHA has been agreed under the Program. To establish a separate entity specializing in management of state roads, the SHZ was to be operationalized within PWD as an interim measure, to develop, design, and establish business processes for various road management functions for adoption by the SHA. GOMP created a wholly owned government company, the Madhya Pradesh Road Development Corporation Limited (MPRDC), incorporated under the Companies Act 1956 on 14 July 2004, with an authorized capital of Rs200 million. GOMP provided Rs100 million as paid-up capital in the state budget for fiscal year (FY) 2005. GOMP had initially entrusted MPRDC with the responsibility of the implementation of the rehabilitation of state roads under the ADB-funded Project and about 2,000 km of roads being rehabilitated through private sector participation under a build-operate-transfer (BOT) contract (referred to by GOMP as BOT or bond roads). The Madhya Pradesh Highway Bill 2004 was passed by the state legislature in July 2004 and received assent from the President of India on 20 June 2005. Consequently, the State Highway Act became effective and operative on 1 October 2005. MPRDC was notified as the SHA on 19 October 2005, and entrusted with the responsibility for all 8,333 km of state highways in MP.</p> <p>Fully functional business processes have been developed in MPRDC/SHA, relating to, among others, systems for (i) financial management and accounting; (ii) planning, budgeting, and programming; (iii) road safety; (iv) a management information system; (v) procurement; (vi) asset management; and (vii) human resources. The responsibilities, organizational structure, functions, and staffing of MPRDC/SHA are consistent with the Program. MPRDC/SHA and PWD have undergone extensive training and capacity-building programs under the TA to adapt the new business processes and modern road management systems. The TA has also provided significant day-to-day technical support to ensure sustainability of the new institution.</p>
Labor rationalization	The State shall have reduced about 7,800 permanent employees through voluntary retirement scheme (VRS) and about 8,000 non-permanent	<b>Partially Complied With.</b> GOMP's plan under the Program—to reduce (i) 7,800 permanent PWD employees through VRS, and (ii) 8,000 nonpermanent PWD employees through compulsory retrenchment, was formulated in 2002 in line with GOMP's staff reduction scheme introduced in February 2000, which required all departments to reduce their strength

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
	employees through Industrial Dispute Act 1947, both in accordance with Labor Rationalization Program (LRP) <sup>a</sup>	<p>by 30% through a combination of natural attrition, reduction in sanctioned posts, and rationalization measures. GOMP has also frozen recruitment in PWD for the last 20 years.</p> <p>Significant developments have occurred during the implementation of the Program, which have necessitated a change in the course of action by GOMP in addressing and meeting the objective of the LRP. These include (i) legal suits filed in the High Court by some of the 22,000 daily wage earners retrenched by GOMP across various state departments under an earlier action, which subsequently led to a court decision to overturn GOMP's retrenchment action; and (ii) a shift in GOMP's strategy on staff rationalization through compulsory retrenchment of nonpermanent employees. Consequent to a shift in GOMP's strategy, it issued an order to take back the retrenched nonpermanent employees, subject to their meeting the eligibility criteria.</p> <p>In view of the increased backlog of maintenance and resultant deterioration of roads, GOMP initiated a massive road rehabilitation and maintenance program since the Program was formulated, and accorded highest priority to road development. It has increased the budgetary allocation for road rehabilitation and maintenance by more than 50% over the last 2 years. The increased road rehabilitation and maintenance activities led GOMP to reassess the required strength of permanent and nonpermanent employees.</p> <p>PWD updated the figures for surplus strength of permanent employees based on staff requirement analysis, reduction in the surplus since 2002 by natural attrition, and departmental promotions before operationalizing the VRS under the Program. About 1,700 permanent PWD employees have been reduced since 2002 through natural attrition. The identified surplus staff was also categorized under various posts in PWD that were classified as "surplus category". GOMP's revised figure for surplus permanent employees is 2,152. The state cabinet approved the operationalization of the VRS for surplus employees on 16 October 2005, and GOMP notified the VRS on 30 November 2005. The VRS was opened to eligible PWD employees on 1 January 2006 for 6 months. GOMP designed elaborate procedures for receipt, verification, and disposal of applications under the VRS. It has formulated a social safety net program, including job counseling, training, and information services. An information brochure has been prepared for VRS applicants. GOMP has designed the formats for the socioeconomic survey of the VRS applicants. The survey is being conducted for the employees while they are opting for VRS.</p>

<sup>a</sup> Achievement of reduction of about 4,000 permanent employees through Government VRS and Industrial Dispute Act 1947 under the LRP, acceptable to ADB is included as an interim milestone as one of the program measures under the sixth condition.

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		<p>VRS is the voluntary option being offered to the permanent employees of PWD by GOMP. Since the VRS is voluntary in nature, the actual reduction in the number of permanent employees specified under the tranche release condition cannot be ensured, even upon the completion of the entire process. Cabinet approval to make the VRS operationally effective and open to eligible PWD employees is considered to be the last milestone for monitoring compliance with this condition. GOMP hopes that a substantial number of employees will opt for the VRS.</p> <p>GOMP reassessed the number of nonpermanent employees required for increased road maintenance and rehabilitation based on the updated maintenance standards established by the Ministry of Shipping, Road Transport and Highways in 2001. GOMP, using the norms for labor force for the volumes of tasks for road maintenance, has concluded that 21,725 nonpermanent employees are needed, but only 19,661 are available. The intended reduction of 8,000 nonpermanent employees under the Program was based on GOMP's earlier strategy to rationalize labor through compulsory retrenchment. Although GOMP has now indicated a shortfall in the available strength of non permanent employees, it is not engaging more nonpermanent staff and continues to freeze hiring. It has undertaken a staff audit to determine the age profile and deployment status of nonpermanent employees to devise suitable programs for the effective utilization and analysis of natural attrition process. An analysis based on the staff audit indicates that 8,000 nonpermanent employees will be reduced through natural attrition by 2009–2010, and that natural attrition will be more cost-effective than compulsory retrenchment under the Industrial Dispute Act 1947. GOMP's freeze on hiring will gradually phase out all nonpermanent staff over the next few years through natural attrition.</p> <p>With the objective of a shift towards rehabilitation and maintenance of roads through private sector participation, GOMP has been awarding contracts for rehabilitation and maintenance of roads through BOT contracts for about 2,000 km of state highways, since 2001. However, those 2,000 km roads represent only a very small component of the vast network of 64,083 km roads vested with PWD. A shift to maintenance by the private sector for the entire road network will have to be gradual and over several years because the institutional capacities, business processes, and systems developed for MPRDC/SHA will have to be replicated and institutionalized for the road network vested with PWD. Until a shift to road maintenance through private sector participation for the road network vested with PWD is effected, and the non permanent employees in PWD are phased out through natural attrition, the current system of road maintenance using non permanent employees would have to be continued. GOMP has committed that the 1,700 km of roads being rehabilitated under the Project, and</p>

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		<p>roads being rehabilitated using other funds will be maintained through private sector participation upon completion. In synchrony with the reduction of nonpermanent staff through natural attrition, maintenance activities through private sector participation will also be stepped up and extended to the remaining road network.</p> <p>Recognizing the low productivity of the nonpermanent employees, GOMP has initiated several innovative actions for effective utilization of those employees available with PWD that are aimed at improving efficiencies in the PWD workforce. The actions taken by GOMP are (i) substantially increasing the budget for maintenance; (ii) piloting effective and efficient road maintenance using nonpermanent employees on a road stretch to revive the earlier system of road maintenance for the entire network, using current maintenance norms; (iii) staff audit to determine the age profile and deployment status of nonpermanent employees to devise suitable programs for the effective utilization and analysis of natural attrition; (iv) putting in place adequate control and monitoring systems to disburse wages to nonpermanent employees; and (v) segregating the allocation for labor (including nonpermanent employees) and maintenance under the state budget's road and bridge repair and maintenance. GOMP is developing other plans and monitoring mechanisms to effectively and productively use nonpermanent employees. With an increased budget for road maintenance of Rs2,700 million (about \$61 million), the cost of labor has significantly reduced to about 28% of the maintenance budget for FY2006. In accordance with the recommendations of the Twelfth Finance Commission, GOMP will receive an annual grant of Rs1,460 million (about \$33 million) from the central Government for road maintenance for 4 years, in addition to its own budgetary allocation.</p> <p>The original purpose of this conditionality was to reduce permanent and nonpermanent employees to the level required for road maintenance. Although there has been a shift in GOMP's strategy on staff rationalization through compulsory retrenchment of nonpermanent employees, the reduction of 8,000 nonpermanent employees contained in the LRP, approved by GOMP in 2002, is no longer relevant under the current circumstances. Owing to intensification of road rehabilitation and maintenance activities in the recent past, GOMP found that much lesser number of permanent and non-permanent employees is redundant. As the Program's eventual goal is to maintain state roads in a sustainable manner, the reassessed number of permanent and nonpermanent employees should match the volumes of tasks for road maintenance. Compliance with this conditionality can, therefore, be judged based on the reassessed number of permanent and nonpermanent employees and the steps taken by GOMP to meet the objectives of the LRP and the Program. GOMP can be considered to have adhered to the spirit of this condition in view of the (i) reduction of about 1,700 permanent employees through natural attrition since 2002, (ii) actions taken by GOMP</p>

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		for the reduction of surplus permanent employees through the VRS, (iii) continuation of the recruiting freeze in PWD, (iv) anticipated reduction of 8,000 nonpermanent employees through natural attrition by 2009–2010 and gradual phasing out of all nonpermanent staff over the next few years through natural attrition, (v) increased budget for maintenance, and (vi) measures to effectively use and improve the efficiency of nonpermanent employees in PWD for road maintenance. However, in view of the specific numbers for the reduction of permanent and nonpermanent employees originally stated under this condition in the loan agreement, the conditionality is regarded to be partially complied with.
Establish an effective and sustainable road asset maintenance system	<p>The State shall have established an improved road maintenance system, satisfactory to ADB, including adoption of Highway Development and Management-4 (HDM-4) software for planning and budgeting for road maintenance expenditures.</p> <ul style="list-style-type: none"> <li>• Devise a performance-based road maintenance scheme.</li> <li>• Update the existing road maintenance manual in line with international standards.</li> <li>• Adopt HDM for planning and budgeting of road maintenance expenditure.</li> </ul>	<p><b>Complied With.</b></p> <p>MPRDC has finalized performance-based road maintenance scheme and has prepared the necessary documents for the implementation of the scheme. Measures undertaken by GOMP for pilot testing the road maintenance using performance based scheme in compliance to the program measure stated at S.No. 14 under the sixth tranche release condition are provided in the subsequent sections.</p> <p>MPRDC/SHA has updated the Road Maintenance Manual in line with international standards.</p> <p>MPRDC/SHA has adopted HDM-4 as a planning and analytical tool and the system for road sector planning and budgeting of road maintenance expenditure has been set up based on HDM-4. Additional measures undertaken by GOMP on road sector resource management using HDM-4 in compliance to the program measures at serial number S.Nos. 6, 7, and 8 under the 6<sup>th</sup> tranche release condition is provided in the subsequent sections.</p>
Control of overloading	The State shall have approved and implemented an action plan, acceptable to ADB, for strengthening enforcement of the overloading control program.	<p><b>Complied With.</b> The legal framework to control overloading of vehicles exists. The weaknesses in the enforcement of overloading control had been the lack of inspection, surveillance, and enforcement system. GOMP has drawn up a phased statewide program to strengthen and improve infrastructure at state border check posts to strengthen overloading control. GOMP is undertaking a rigorous inspection at the border check post locations. It has allocated funds for 10 electronic weighbridges and surveillance mechanisms, which</p>



Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		MPRDC/SHA is installing at the state borders and key locations on the road network. Private investors are being invited to install weighbridges at another 26 locations; GOMP will provide State support to operate them. As an added precaution against enforcement officers' laxity and corruption, closed-circuit television cameras are being installed and connected through satellite to the nearest road transport offices, allowing weighing operations to be monitored remotely. Collection of the composition fee has increased as a result of these efforts: <sup>b</sup> in FY2004, it was 27% higher than in FY2003, and in FY2005, 60% higher than in FY2004. GOMP recently increased the composition fee by more than 100%, thus sensitizing the truck operators and discouraging them from plying overloaded trucks. In November 2005, the Supreme Court of India passed a judgment, banning overloading of trucks to prevent premature damage to roads, and mandated that excess cargo would be offloaded at the risk and cost of vehicle owner before the truck would be permitted to continue its journey, even after payment of penalty. GOMP's efforts are expected to eventually reduce vehicle overloading.
Road safety	The State and the PWD, GOMP shall have developed an accident investigation and prevention manual for highway engineers in accordance with internationally recognized standards and distribute such manual to the highway engineers for implementation.	<b>Complied With.</b> MPRDC/SHA has reviewed and modified the accident investigation and prevention manual prepared for the Ministry of Shipping, Road Transport and Highways under ADB TA 2001-IND <sup>c</sup> to reflect local experiences and to adapt it to the road network under GOMP. The accident investigation and prevention manual under TA 2001-IND was prepared in 1996 to guide the highway authorities and engineers in reducing the road accidents and fatalities in India. As the manual was the first attempt to produce such guidelines in India based on sound practices in other countries, some changes were required to reflect new experiences. The manual will improve the system for recording accidents and analyzing their causes, which will eventually reduce accidents. GOMP is piloting the use of the manual for 3 months. The experiences from pilot implementation and any feedback from transport and traffic police departments during the 3 months will be incorporated into the manual. Copies of <i>Towards Safer Roads in Developing Countries</i> by the Transport Research Laboratory of the United Kingdom have been procured and disseminated to PWD and MPRDC officers under the TA.
<b>B. Sixth condition under second tranche release — substantially complied with</b>		<b>Program measures stated in the policy matrix requiring substantial compliance —</b>
Labor rationalization	1. Achieve reductions of about 4,000 permanent employees through	<b>Partially Complied With.</b> Please refer the key tranche release condition above, related labor rationalization.

<sup>b</sup> Composition fees are paid as an alternative to criminal proceedings and fines; they are also known as "compounding fees".

<sup>c</sup> ADB. 1993. *Technical Assistance to India for Road Safety*. Manila. TA 2001-IND, approved in November 1993, for \$210,000.

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
	Government VRS and Industrial Dispute Act 1947 under the LRP, acceptable to ADB	
	2. Carry out the social safety net program, including job counseling, training, and information services to the affected employees, to the satisfaction of ADB throughout the program implementation period.	<b>Complied With.</b> GOMP has formulated a social safety net program including job counseling, training, and information services. An information brochure has been prepared for dissemination to the applicants opting for the VRS.
	3. Review LRP implementation, including a socioeconomic survey of the affected employees, for benefit monitoring, and submit to ADB an analysis of survey and review the results.	<b>Substantially Complied With.</b> GOMP has prepared the formats for conducting socioeconomic survey of the applicants seeking VRS. The survey is being conducted for the employees while they are opting for VRS.
Financial management	4. Adopt international financial management methods and establish updated accounting and reporting systems for SHA.	<b>Complied With.</b> MPRDC/SHA has procured and adapted computerized financial management and accounting system. The system has been commissioned and MPRDC officials are operating the system.
Public procurement	5. Develop and adopt guidelines and procedures acceptable to ADB for more transparent and competitive public sector procurement.	<b>Complied With.</b> GOMP has adopted and is applying ADB procurement guidelines in the implementation of the ADB-funded Project. MPRDC/SHA has developed and adopted procurement guidelines, procedures, and standard documents for more transparent and competitive public sector procurement.
Road sector resource management	6. Adopt planning, budgeting, and programming systems for SHA, acceptable to ADB.  7. Develop and implement a management information system for SHA to improve the documentation and information flow for strategic decisions.  8. Establish a road database and a system to update the database	<b>Complied With.</b> MPRDC/SHA has developed a Microsoft access-based electronic road register (ERR) and an interface to HDM-4. The system has been made operational and has the relevant database for the state highways. It can generate reports for management information and decision making and produce a program of capital and periodic maintenance works to optimize use of funds with a constrained budget. The system has been pilot-tested with real data for select zones. It is expected that MPRDC would utilize the system from the next financial year for planning, budgeting, and programming of the state highway entrusted to it. MPRDC/SHA staff has been trained extensively in the use of HDM-4, ERR and the road management system through specialized training programs and day-to-day technical support, to ensure sustainability of the reform measure. MPRDC/SHA has now been training PWD staff in data collection, data entry and the use of ERR for management information and

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
	regularly and systematically.	decision making.
Human resources development	9. Develop and implement human resource development strategy and training program for SHA staff.	<b>Complied With.</b> MPRDC/SHA has developed its human resources development strategy including personnel policies and business processes. A social and environmental unit has also been established. Various overseas and in-country study tours and training programs on technical, contractual, legal and funding aspects have been formulated and organized.
Road maintenance system	10. Allocate \$8 million equivalent under the FY2004 budget for routine road maintenance and \$1.5 million for implementation of social safety net by March 2003	<b>Complied With.</b> The requisite budgetary allocation under the FY2004 budget had been made.
Road maintenance system	11. Allocate \$8 million equivalent under the FY2005 budget for routine road maintenance by March 2004.	<b>Complied With.</b> The requisite budgetary allocation under the FY2005 budget for routine road maintenance had been made.
Road maintenance system	12. Implement the corridor management unit (CMU) system established under NHAI.	<b>Substantially Complied With.</b> The corridor management unit system for road asset management established under NHAI was reviewed for relevance and adaptation for MPRDC/SHA. A region-based organizational structure for road asset management is more suited for MPRDC/SHA. In accordance with the reengineering plan, the organizational structure of the MPRDC/SHA has been modeled on seven divisions in the state and implemented accordingly. Road asset management of those divisions will be undertaken by the respective division managers. Although the stated program measure was not relevant to MP, the actions undertaken by GOMP fully meet the objectives of the stated program measure. However, in view of a specific statement under this program measure, the compliance status is regarded as "substantially complied with".
Road maintenance system	13. Implement the recommendations resulting from the toll system study being carried out under the ADB-financed Western Transport Corridor Project <sup>d</sup>	<b>Substantially Complied With.</b> The contract for toll system study under ADB-financed Surat-Manor Tollway Project <sup>e</sup> was signed by NHAI with the study consultants only in November 2004 and the study is in progress. As the study is being conducted for a four-lane highway corridor across the country, the outputs and recommendations envisaged under the study would not be directly applicable to the MP road system. GOMP has developed 2,000 km of

<sup>d</sup> ADB. 2001. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to India for the Western Transport Corridor Project*. Manila. (Loan 1839-IND, approved in September 2001.)

<sup>e</sup> ADB. 2000. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to India for the Surat Manor Tollway Project*. Manila. (Loan 1747-IND, approved in July 2000.)

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		road rehabilitation program through public–private partnership. Tolling is being undertaken in MP for the roads rehabilitated through BOT contracts. MPRDC/SHA has reviewed its PPP structure and has modified the concession documents. Although the stated program measure was not relevant to MP, the actions undertaken by GOMP fully meet the objectives of the stated program measure. However, in view of a specific statement under this program measure, the compliance status is regarded as “substantially complied with”
Road maintenance system	14. Pilot-test the outsourcing of road maintenance using the performance-based scheme.	<b>Complied With.</b> GOMP has included the extensive monitorable performance-based maintenance parameters from the performance-based road maintenance scheme as a part of the road rehabilitation projects now being taken up by GOMP through BOT contracts. Those BOT contracts cover a period of more than 10 years and are upto a 15-year period, which would optimize reduction in costs and maximize attainment of efficiencies. MPRDC/SHA would undertake the maintenance of roads being rehabilitated under the Project through outsourcing of road maintenance using the performance-based scheme upon completion of rehabilitation works.
Road maintenance system	15. Establish and implement appropriate road and bridge design standards in line with international practice.	<b>Complied With.</b> The standards and codes of practice adopted by MPRDC/SHA for the design of road and bridge works are in line with international practices.
Funding for road maintenance	16. Identify road sector revenue sources and potential road user charges.	<b>Complied With.</b> GOMP had setup a high-level road fund committee headed by principal secretary, Finance Division to review and identify new revenue sources and examine the feasibility of MP state road maintenance fund to be managed by MPRDC/SHA. The committee has conducted in-country study tour to Kerala to review road fund performance in the state. The committee has finalized its report and concluded that (i) GOMP has considerably stepped up its budgetary allocation for road development and maintenance during the last 3 years, (ii) in accordance with the recommendations of the Twelfth Finance Commission, GOMP would receive an annual grant of Rs1,460 million (approximately \$33 million equivalent) for road maintenance from the central Government for a period of 4 years, in addition to its own budgetary allocation, (iii) GOMP is already undertaking toll-based road rehabilitation projects in MP through PPP format, (iv) currently the primary problems in the road sector is not under-funding but effective and efficient utilization of funds; (v) the creation of a road fund is not required under the current circumstances and is not a feasible solution without introducing additional sources of funding, and (vi) introducing new or additional sources of funding is currently not feasible. The committee has recommended that there must be a clear commitment to ensure adequate funding for the maintenance of roads and for adopting all possible measures for the optimal use of these funds. GOMP has recognized
	17. Carry out a study on the feasibility of a MP state road maintenance fund to be managed by SHA.	

Policy Objectives	Second-Tranche Release Conditions	Status of Compliance
		the need for improving the cost-effectiveness of road agencies and the quality of expenditure on road maintenance. The establishment of the SHA and its reengineered business processes has strengthened GOMP's institutional capacity in road sector management. The reform measures implemented under the Program has helped establish a road management system (RMS) and has strengthened GOMP's capability in preparing optimal and effective maintenance and rehabilitation programs.
Control of overloading	18. Implement the approved plan for controlling the overloading of trucks.	<b>Complied With.</b> Please refer to the key tranche release condition related to control of overloading.
Road safety	19. Prepare an audit report and submit it to ADB on implementation of the safety regulations.	<b>Complied With.</b> MPRDC/SHA has conducted road safety audit for two road stretches and submitted a report. The road safety audit would be undertaken by MPRDC/SHA for 1,700 km roads being rehabilitated under the Project, with the assistance of the consultant engaged for the construction supervision. A road safety cell has been formulated in the MPRDC/SHA under its organizational structure to institutionalize the measures.
Establish a favorable regulatory framework for private sector participation.	20. Update and implement the <i>Guidelines for Private Sector Participation in the Road Infrastructure</i> (1997) in Madhya Pradesh in accordance with the recommendations of the study on development of PPP under the ADB-financed Western Transport Corridor Project.	<b>Substantially Complied With.</b> The recommendations of the study on PPP under the ADB-financed Western Transport Corridor Project are not entirely applicable to MP's region-based road network as those recommendations had been made for the national highways and for specific corridors. Madhya Pradesh is a leading state in India in undertaking road rehabilitation projects for the state roads through PPP mechanism. MPRDC/SHA has been transferred the responsibility for rehabilitation and maintenance of about 2000 km roads that have been awarded to the private sector on a BOT basis. An in-depth review of the MP's experience in undertaking projects on PPP format has been undertaken and a report for updating guidelines for private sector participation in the road infrastructure has been prepared. The concept of performance-based maintenance has been incorporated as a part of the BOT concession documents. Although the stated program measure was not relevant to MP, the actions undertaken by GOMP fully meet the objectives of the stated program measure. However in view of a specific statement under this program measure, the compliance status is regarded as "substantially complied with".

ADB = Asian Development Bank, BOT = build-operate-transfer, CMU = corridor management unit, ERR = electronic road register, FY = fiscal year, GOMP = Government of Madhya Pradesh, HDM = Highway Development and Management, LRP = Labor Rationalization Program, MPRDC = Madhya Pradesh Road Development Corporation Limited, MP = Madhya Pradesh, NHAI = National Highways Authority of India, PWD = Public Works Department, RMS = road management system, SHA = State Highway Authority, SHZ = State Highway Zone, TA = Technical Assistance, VRS = voluntary retirement scheme.