



1. Project Data:		Date Posted: 09/10/2007	
PROJ ID : P065779		Appraisal	Actual
Project Name: Federal Highway Maintenance Project	Project Costs (US\$M):	309.0	333.2
Country: Mexico	Loan/Credit (US\$M):	218.0	218.0
Sector Board: TR	Cofinancing (US\$M):	0	0
Sector(s): Roads and highways (98%) Central government administration (2%)			
Theme(s): Export development and competitiveness (40% - P) Regional integration (40% - P) Other financial and private sector development (20% - S)			
L/C Number: L7042			
	Board Approval Date :		12/14/2000
Partners involved :	Closing Date :	06/30/2005	11/30/2006
Evaluator:	Panel Reviewer:	Group Manager:	Group:
Antti P. Talvitie	Peter Nigel Freeman	Alain A. Barbu	IEGSG

2. Project Objectives and Components:

a. Objectives:

1. To primarily improve transport efficiency on the Federal Highways
2. To improve SCT's (Secretaría de Comunicaciones y Transporte) highway rehabilitation and maintenance performance, and
3. To enhance private sector participation in highway maintenance .

This statement of objectives is from the Loan Agreement.. PAD and ICR have a more descriptive (and long) wording for Objective 1. The LOA expresses the intention more concisely .

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

1. Highway Rehabilitation and Maintenance. This component included (a) rehabilitation of app. 1000 km and maintenance of app. 1200 km of Federal Highways; (b) rehabilitation of app. 100 bridges on the Federal highways; and (c) consulting services for these projects' engineering and supervision, including strengthening of these capabilities in the Secretariat of Transport and Communications (SCT). Cost at appraisal US\$171.50; at completion US\$173.39.
2. Comprehensive Maintenance by Contract. A three-year pilot for comprehensive maintenance through private

sector contractors for two Federal Highways consisting of routine maintenance, periodic maintenance, rehabilitation (if necessary), minor works, planning, monitoring and documenting the program, and training of highway professionals in the public and private sector . The length of the maintenance contract was 242.5 km of (equivalent) 2-lane highway. Cost at appraisal US\$13.65; at completion US\$41.18. Note: Vice President approved a change in this component, including a change in output targets and the LOA . More of this below.

3. Vehicle Weight and Dimensions Control Stations. Construction and operation of two vehicle weight and dimension control stations adjacent to Federal Highways . Cost at appraisal US\$3.15; at completion US\$0.00. Due to delay in effectiveness, the component was implemented with local funds . See below.

4. Institutional Strengthening. This component included five activities : (a) implementation of the HDM-4 model and training in its use within SCT to strengthen the institutional capabilities in planning, programming and evaluation in maintenance; (b) technical assistance in SCT institutional capabilities for the design and implementation to promote a strategy for the decentralization of road administration; (c) technical assistance to improve SCT institutional capacities in road financing and resource mobilization; (d) technical assistance to improve SCT institutional capacities for the design, implementation and management of Government's toll road system; and (e) domestic and foreign training of SCT staff in technical, management and administrative skills to carry out the project . Cost at appraisal US\$4.00; at completion US\$1.24.

The appraisal costs include contingencies of US\$ 23.52, and a Front End Fee of US\$2.18, which also is included in the costs at completion. Both tally to US\$218.00 million, the loan amount. The final project costs by component at completion are not given; for the entire project the cost at appraisal was US\$ 309.00 and at completion US\$333.2 million.

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

The Borrower's share of the project cost was 70%, except for component 4, which was 100% loan financed. Because of the expansion of Component 2, and consequent increase in project cost, the Borrower's share at completion was 65.4% (70.6% at appraisal). This is a relatively high percentage, but, as noted in the PAD, it also was a deliberate risk mitigation measure associated with possible budgetary constraints in an uncertain sociopolitical environment. The project was extended once for 17 months, mostly due to an 11 month postponement in effectiveness caused by delays in the issuance of a Legal Opinion after the formation of a new government . The project was fully disbursed by the original closing date; the extension allowed completion of technical assistance and follow-up of the maintenance contracts, both paid by the Borrower . Because of the delay in effectiveness and the urgency of the loan program, the Borrower implemented Component 3 using own funds, and the funds were allocated to Component 2 with revised targets. This change, which occasioned no change in the PDO, was approved by the Regional Vice President.

3. Relevance of Objectives & Design:

The objectives and the project design supported the CAS objectives and strategies for sustainable growth by removing impediments to private sector growth and ensure provision of quality (road) infrastructure. In the context of NAFTA and increasing trade and traffic on the main roads, these objectives were and remain timely . The specific objectives for private sector participation and quality of road infrastructure were covered by the Results Framework . By design, the project also began to address the underlying road sector institutional framework and government policies, which require lengthy intergovernmental negotiations . Decentralization, toll road management, and resource mobilization are complex issues on which agreements are difficult and time -consuming to reach. It is noted that the project's Results Framework does not include specific targets for the institutional component . This was a wise decision. Complex institutional issues, always politically sensitive and beyond the power and control of a single sector, are ill-driven by specific targets, but rather require well -conceived studies on which good decisions can be based when the "window" is open for such decisions to be made .

4. Achievement of Objectives (Efficacy):

1. To primarily improve transport efficiency on the Federal Highways . The achievement of this objective is **high**. Transport efficiency was improved as indicated by the high ERR, covering a significant percentage of the project . The efficiency was also improved through highly successful introduction of area wide maintenance contracts . As a result of the loan supported program, and the further program carried out by the Government, the proportion of "Good" and "Fair" roads increased from 57% in 1999 to 78% in 2005.
2. To improve SCT's highway rehabilitation and maintenance performance . The achievement of this objective is **substantial** . This objective has many parts with high achievement, but some parts with modest achievement . On the high side is the adoption of the HDM-4 model for multi-annual road program preparation, and the increase in the SCT management and planning capacity . On the substantial to modest side are the interrelated issues of decentralization, sector financing and toll road management . Good studies were prepared on these issues and governmental dialogue on them has begun .
3. To enhance private sector participation in highway maintenance . The achievement of this objective is **high**. At the commencement of the project there was no domestic private sector capacity for area wide maintenance contracts

covering the entire scope of maintenance. The component introducing area wide contracts had initially lukewarm support, and even opposition by the Road Administration. The Bank was skillful in resolving this resistance and in allowing local (inexperienced) contractors to participate in the program, which ended up expanding three -fold, with very successful outcomes. Both private and public sector professionals were trained and absorbed knowledge . Nonparticipating states and other entities (the toll road agencies, BANOBRAS-Banco national de Obras y Servicios Publicos) are adopting a similar approach. This method of road maintenance is likely to be sustained .

5. Efficiency (not applicable to DPLs):

See above.

- a. If available, enter the Economic Rate of Return (ERR)/Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation :**

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	114%	34%
ICR estimate	Yes	135%	80%

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome:

The project did not have specific institutional outcome objectives, excepting the pilot multi -year maintenance contracts for the private sector, which were achieved . The objectives were mostly output-specific, and all were achieved. Institutional restructuring was embedded in Component 4, and gauged in terms of "promoting decentralization" or "improving institutional capacities", without an indicative road map. The outcome rating is judged as Satisfactory.

- a. Outcome Rating :** Satisfactory

7. Rationale for Risk to Development Outcome Rating:

The project achieved its objectives . None of the project's identified risks have materialized . The physical results are of good quality. Institutional processes and capabilities to develop and implement road maintenance projects are in place and functioning . The sector's private suppliers have expanded scope and capabilities . There is an ongoing dialogue on pervasive road sector restructuring issues, but some of these will take time to be resolved . All this bodes well for the future and indicates competence to deal with issues as they may arise .

- a. Risk to Development Outcome Rating :** Moderate

8. Assessment of Bank Performance:

The Bank team prepared the project well, addressed the important issues at the time in the framework of the CAS, and was forward-looking to introduce or anticipate issues that needed to be addressed urgently . The Bank was especially competent and proactive in supervision to ensure full achievement of all objectives, and provided sound perspectives in dealing with new institutional issues, which have a long gestation period .

- a. Ensuring Quality -at-Entry:**Satisfactory

- b. Quality of Supervision :**Highly Satisfactory

- c. Overall Bank Performance :**Highly Satisfactory

9. Assessment of Borrower Performance:

The Borrower implemented the project well. There were no major hiccups; new issues were treated with appropriate reserve; and, commitment to project objectives and cooperation with the Bank team was outstanding .

- a. Government Performance :**Satisfactory

- b. Implementing Agency Performance :**Satisfactory

c. Overall Borrower Performance :Satisfactory

10. M&E Design, Implementation, & Utilization:

The project has a good results framework for tangible project outputs . This framework was underpinned by appropriate data collection . The Borrower issued biannual progress and monitoring reports on the indicators . The results informed on project progress and also the government's overall multi -year road program.

a. M&E Quality Rating : Substantial

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

There were no safeguard or fiduciary issues of importance to hinder project implementation . An unintended positive impact was the interest in other sector agencies in the success of the 'Maintenance by Contract' approach and the associated domestic private sector development .

12. Ratings:	ICR	IEG Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	No disagreement. This project covered many issues, physical and institutional, with good outcomes.
Risk to Development Outcome:	Moderate	Moderate	
Bank Performance :	Satisfactory	Highly Satisfactory	The Bank team was very creative in approaching and gaining acceptance for the 'Maintenance by Contract' component and private sector participation. It was also successful in introducing and having SCT implement a new method (HDM-4) for project evaluation and prioritization. The team approached the difficult questions of decentralization, state road financing, and toll road management with broad studies and good study tours . All these issues required complex and time-consuming negotiations between the federal and state governments and the private sector. That such discussions have started is a tangible indication of the success of the project team's approach.
Borrower Performance :	Satisfactory	Satisfactory	The Borrower struggled, initially, with some of the concepts of the Bank team, but soon fully complied with all the requirements. More intensive early supervision, as the ICR suggests, would probably have been helpful.
Quality of ICR :		Satisfactory	

NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate .

13. Lessons:

1. Maintenance by Multi-year Contract requires that certain preconditions are met . These include: (i) budget authorizations for multi-year contracts are legally permissible; (ii) there exist comprehensive data inventories on the asset condition; (iii) there exist competence and methods to evaluate alternative maintenance strategies; (iv) there exist clearly defined output or outcome criteria against which payments are made; and (v) the road administration has the skills and a method to monitor that contract conditions are met .
2. Decentralization is an important part of democratic governance . In the road sector, it requires intergovernmental commitment and must be based on thorough studies of all issues raised by the affected governments and interests. Key issues for successful transfer of road ownership are : the competence in road administration and management of the receiving lower level of government (e.g. at state level in Mexico); and, agreement on the source, availability, sustainability and amount of financing for the transferred network .
3. Innovative concepts and technologies are a necessary part of improving road administration and management . Both need to be tailored to the country conditions . Because adoption of new concepts and technologies is very demanding in terms of data and human resources, supervision of innovative project components must be frequent and adequately resourced with experienced staff .
4. Public voice. Feedback from road users and other affected parties must be part of any successful road sector project.

14. Assessment Recommended? Yes No

Why? There are several key issues, whose analysis would benefit the sector bank wide . These include: decentralization of roads to the lower level governments; tolls and their effect on traffic diversion and toll road financial viability; area wide maintenance contract; and budgeting of multi -year road (maintenance) contracts.

15. Comments on Quality of ICR:

The ICR is informative and covers the project issues and results comprehensively and well . The project cost table should also, however, identify the total project costs and the loan coverage of those costs by component . There is in addition some unnecessary text repetition .

a.Quality of ICR Rating : Satisfactory