

# IEG ICR Review

Independent Evaluation Group

1. Project Data:		Date Posted : 03/21/2008	
PROJ ID : P068673		Appraisal	Actual
<b>Project Name :</b> Third Road Rehabilitation And Maintenance Project	<b>Project Costs (US\$M):</b>	87.4	88.7
<b>Country:</b> Nicaragua	<b>Loan/Credit (US\$M):</b>	75.0	83.1
<b>Sector Board :</b> TR	<b>Cofinancing (US\$M):</b>		
<b>Sector(s):</b> Roads and highways (91%) Central government administration (9%)			
<b>Theme(s):</b> Regional integration (50% - P) Rural services and infrastructure (50% - P)			
<b>L/C Number:</b> C3464			
	<b>Board Approval Date :</b>		02/15/2001
<b>Partners involved :</b>	<b>Closing Date :</b>	12/31/2005	06/30/2007
<b>Evaluator :</b>	<b>Panel Reviewer :</b>	<b>Group Manager :</b>	<b>Group :</b>
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## 2. Project Objectives and Components:

### a. Objectives:

The objectives of the Project were:

1. To improve the Borrower's transport infrastructure along selected international trunk road corridors;
2. To improve access to productive agricultural areas and to rural communities, in particular to those located in regions affected by Hurricane Mitch, the storm that affected Nicaragua in October 1998; and
3. To ensure the sustainability of the road improvements carried out under the project .

These are identical in PAD, DCA, and the ICR .

### 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. *Road Rehabilitation and Improvement Program.* Rehabilitation and improvement of two main roads : the Managua-Izapa road (63 km); and the Muhan-El Rama road (92 km), which formed the last link in the 290-km road from Managua due east to the river port at El Rama . The works consisted primarily of widening and rehabilitating the road along existing alignments, and provision of adequate drainage and road signs . Cost at appraisal US\$36.4 million, at completion US\$39.7 million.
2. *Rural Transport Improvement.* Stabilization of about 300 km of rural secondary and tertiary roads, to gravel or adoquine standards, located mostly in the Hurricane Mitch -devastated Region I. The works were planned to be executed by private and small contractors who would restore the road sections to gravel or adoquine standards on the existing rights-of way. Cost at appraisal US\$24.9 million, at completion US\$28.3 million.

3. *Road Network Maintenance*. Routine and periodic maintenance of approximately 1,500 km of trunk, secondary, and/or tertiary roads. The subcomponents included financing for: (a) the continuation of the program for introducing periodic maintenance by contract; (b) the extension of the program for routine maintenance by microenterprises; and (c) partial support of the annual programs of the Road Maintenance Fund (FOMAV). Cost at appraisal US\$12.6 million, at completion US\$10.0 million.

4. *Capacity Building*. Engineering and technical studies, and technical assistance through the provision of consultants' services, equipment, and training, as needed for: (a) monitoring the performance of the components of the Project, the management and supervision of civil work contracts, the design and implementation of training programs, technical audits, surveys of traffic origin and destination, transport sector reviews, the strengthening of Ministry of Transport and Infrastructure (MTI) capacity for technical, social, and environmental analysis, and the preparation of the implementation completion report of the Project; (b) designs and supervision of the overall road program by consultants, and training for MTI's staff and microenterprises as required, plus the training of FOMAV's staff; (c) improving the planning and programming capacity of MTI; (d) implementation of a reforestation pilot project near Bluefields Town; and (e) financing of feasibility studies and detailed engineering. Cost at appraisal US\$8.1 million, at completion US\$10.7 million.

Not included above is the appraisal contingency of US\$ 5.4 million.

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

The project costs were close to those estimated at appraisal. Due to appreciation of the XDR, the credit disbursed US\$8 million more than the appraisal estimate and the Borrower's share was US\$ 7 million less. The appreciation was fortunate because in a difficult political and economic environment, IDA agreed with the government's request to increase the disbursement share for civil works after 2002 from 86 to 94 percent of total cost. The new government, after 2002 elections, found itself in difficult economic situation, which led to a shortage of counterpart funds. The increased disbursement was primarily used for the stabilization of the rural roads. The loan closing date was extended three times, for a total of 18 months. The first 6-month extension was granted on the basis of earlier delays due to excessive rains and difficult political and economic climate. The second 6-month extension was agreed to permit the completion of civil works affected by the continued rains. Finally, the loan closing date was extended to June 30, 2007 to permit the conclusion of studies and consulting services related to the Regional Environmental and Social Analysis needed for the proposed Naciones Unidas -Bluefields road improvement.

#### **3. Relevance of Objectives & Design:**

The objectives were relevant and consistent with Nicaragua's poverty reduction strategy, which include basic infrastructure, broad-based growth, and access to social services. The design, besides being in line with macroeconomic and sector priorities, was influenced by the experiences and lessons from past projects, complemented the Bank's poverty reduction strategy, and focused on one of the poorest regions of the country. The specific objectives derive from the Government's transport sector priorities. Rebuilding the road network following periods of natural disasters or economic downturns formed the core of the project's balanced program for sustainable development of the sector institutions and maintenance of in-place infrastructure. Participatory processes were an integral part of the design to ensure the project's viability. Full commitment from the Borrower and ownership from the beneficiary population were essential features of the project design. The contracting of local community entities and microenterprises for road stabilization and maintenance works were an important approach for the generation of job opportunities and the improvement of living standards in the communities. The objectives remain relevant because they are consistent and in line with the principles of the Highly Indebted Poor Countries (HIPC) initiative, the Government's Poverty Reduction Strategy Paper (PRSP), and the Millennium Development Goals (MDGs) emphasizing extreme poverty reduction.

The project components were realistic and vital to achievement of the desired development outcomes, measured by five indicators: (a) reduction in vehicle operating costs and time savings along the key trunk roads; (b) qualitative improvements to the network (good or fair condition); (c) number of rural communities provided with improved road access; (d) share of the budget allocated for road maintenance by contract; and (e) participation of the private sector in terms of numbers and value of maintenance contracts.

These indicators are relevant and relate directly to project objectives. Rehabilitation and maintenance works were not complex in their design and implementation. The institutional strengthening component was designed to improve MTI's efficiency to ensure sustainability of its operations, and also involved technical assistance and staff training for FOMAV, and the microenterprises.

#### **4. Achievement of Objectives (Efficacy):**

1. To improve the Borrower's transport infrastructure along selected international trunk road corridors. The major civil works contracts for the rehabilitation of the Managua -Izapa and the Muhán-El Rama road sections were fully completed and put into operation within the project implementation period, with no significant cost overruns; the high ERR (39%) confirms the reductions in vehicle operating costs. The achievement of the objective is high.

2. To improve access to productive agricultural areas and to rural communities, in particular to those located in

regions affected by Hurricane Mitch, the storm that affected Nicaragua in October 1998. The project implemented the planned Rural Roads Stabilization Program. It restored roads damaged by Hurricane Mitch; supported the poverty reduction strategy by generating job opportunities for skilled and unskilled people; and strengthened national private contractors and the local consulting industry. The program restored 203.5 km with the adoquine pavement. Of these 28 km were implemented by community groups. 83 km of gravel roads were resurfaced, and improved road access reached 35 communities (5 more than the planned 30). A total of 305.8 km of rural and secondary roads were improved, slightly more than the target of 300km. The achievement of the objective is high.

3. To ensure the sustainability of the road improvements carried out under the project. The project achieved: legislative approval for funding FOMAV via a surcharge on fuels; expanded priority of periodic maintenance by private contractors and routine maintenance by microenterprises; increased share of the road budget directed to periodic maintenance; and, completion of successful technical assistance and training activities (over 100 events) for the staff responsible for road maintenance in MTI and FOMAV. The achievement of the objective is high.

Overall the achievement of the objectives is high.

### 5. Efficiency (not applicable to DPLs):

An ex-post economic analysis was carried out for both the road rehabilitation and rural transport improvement programs, the latter using a simplified RED model (Road Economic Decision Model) for low volume roads, which was not available at appraisal. The results indicate higher ERR values than estimated at appraisal (the comparative ERR value is 32% compared to the appraisal estimate of 28%). The ICR's recalculated ERR also had a much larger scope than the one at appraisal.

**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	28%	42%
ICR estimate	Yes	32%	82%

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

### 6. Outcome:

The outcome rating is highly satisfactory based on the economic assessment and the relevance and achievement of the PDO. The project components were fully implemented. Special mention is made of prompt restoration of key transport links that were damaged by Hurricane Mitch, and expanded participation of the private sector in road construction and maintenance. The National Assembly approval of the fuel surcharge for road maintenance is a landmark achievement. For the first time, it may be possible to guarantee road maintenance funding in Nicaragua. Other worthwhile achievements included the introduction and mainstreaming social safeguards in the MTI project cycle using the manual for the mitigation of the social impacts of road projects.

**a. Outcome Rating :** Highly Satisfactory

### 7. Rationale for Risk to Development Outcome Rating:

The level of risk to development outcomes is rated low. Technical sustainability of the project's road works is likely because of MTI's improved capacity to plan, program, and maintain the rehabilitated roads through the microenterprises program, and by FOMAV's increased institutional and financial capacity to sustain its road maintenance programs.

**a. Risk to Development Outcome Rating :** Negligible to Low

### 8. Assessment of Bank Performance:

In preparation, the project team drew on the lessons learned from the successful prior road projects. Its design context was the Government's development strategy, CAS, PRSP and the donors' transport programs. There was a strong Bank effort to coordinate with ongoing work of other international financial organizations. In supervision, the Bank team was effective in providing technical advice for the road works. It was especially effective in institutional development through training in procurement and financial management, development of safeguard processes, and in the use of the models for economic assessments. The Bank team pursued the improvement of FOMAV that was established under the First Road Project. FOMAV has grown from its US\$2.4

million program in the initial year to a US\$ 18 million program in 2006. These actions underscore positive steps toward sustainability of the roads under the project .

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

**b. Quality of Supervision :**Highly Satisfactory

**c. Overall Bank Performance :**Highly Satisfactory

#### **9. Assessment of Borrower Performance:**

The Government set priorities for both rehabilitation and maintenance and organized a very good donor conference to explain them . Allocation of counterpart funding fluctuated because the Nicaraguan economy was affected by political and fiscal uncertainties . Nonetheless, the Government responded to implementation issues that required its attention . There was satisfactory performance at preparation and appraisal, and highly satisfactory management of project funds, good coordination, achievement of financial sustainability for FOMAV, and achievement of project outputs as planned .

**a. Government Performance :**Satisfactory

**b. Implementing Agency Performance :**Highly Satisfactory

**c. Overall Borrower Performance :**Highly Satisfactory

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

The M&E design was appropriate and pragmatic . Besides the indicators enumerated in Section 3, project implementation was measured against physical and financial targets for road rehabilitation, periodic and routine road maintenance, and institutional strengthening for MTI . The M&E targets were specifically linked to the project, and focused on the achievement of project outcomes or outputs over given periods .

The baseline data to monitor key transport indicators for Ministry of Transport and Infrastructure (MTI) had been developed under the earlier IDA projects and sustained . The utilization of the M&E indicators was a routine part of project oversight.

**a. M&E Quality Rating :** Substantial

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

Environmental and Social Safeguards. The project was in Category B. The environmental safeguards were in compliance with World Bank Operational Directives and Nicaragua's environmental procedures . Ministry of Environment and Natural Resources (MARENA) issued the environmental certification for the project . The project introduced social assessments . Starting from zero experience MTI learned how to conduct social analyses and has prepared a Social Management Manual, which covers resettlement, cultural property, indigenous people and other key elements of social impact assessment and mitigation . The manual also outline the key strategies for building cooperation with the municipalities for joint problem solving approaches . This was an exemplary achievement of the MTI. No safeguards compliance problems arose during project implementation .

Fiduciary Aspects: Financial management of the project was carried out in accordance with the legal agreements and the operational manual. The financial system was in place at the start-up from the previous projects, providing experienced and satisfactory administration and financial management of the project .

Procurement: Given the experience and institutional capacity in the integrated project implementation unit (UCP), the procurement of goods, works, and services under the project was carried out satisfactorily in accordance with IDA procurement procedures . The preparation of tender documents and procurement proceeded smoothly, and the record- keeping and filing systems were good .

Other Positive Impacts: The project carried out a reforestation pilot . To compensate for the indirect effects of road projects, the project financed the successful reforestation of 60 hectares of the Esconfran Basin, near Bluefields Town, and provided technical assistance to the 32 beneficiary families living in the reforested area . There also were other unanticipated impacts: (i) increase in the use of bicycles in areas where roads were stabilized with adoquines; bike traffic has grown from near zero before the project to over 300 bike trips per day on selected adoquine roads; (ii) increased private sector supply of personnel and facilities for the design, supervision, construction, and maintenance of road projects, including the use of microenterprises for maintenance and supply of stabilization materials (adoquines).

12. Ratings:	ICR	IEG Review	Reason for Disagreement / Comments
<b>Outcome:</b>	Highly Satisfactory	Highly Satisfactory	
<b>Risk to Development Outcome:</b>	Negligible to Low	Negligible to Low	
<b>Bank Performance :</b>	Satisfactory	Highly Satisfactory	The project team designed a good and realistic project and coordinated with other donors. In supervision, the Bank team was especially effective in institutional development and in the introduction of social assessments .
<b>Borrower Performance :</b>	Highly Satisfactory	Highly Satisfactory	
<b>Quality of ICR :</b>		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. **Importance of experience and lessons learned under previous projects** . IDA and government experience from previous operations, and the continuity of TTL leadership in the sector, enhance supervision effectiveness and project implementation.
2. **Bank and Government's proactive participation to manage change is important.** Difficult political and economic environment, as in Nicaragua in 2002-05, affected project implementation. Practical actions from the Government and IDA were essential to ensure financing and the achievement of the development objectives. When there were setbacks due to the unusual events --duration and intensity of the rainy seasons in this case--IDA leadership and flexibility (e.g. granting short project extensions), open communication between the technical staffs, and focus on issues were essential to results .
3. **Establishing a Road Maintenance Fund is a difficult but worthwhile goal** . The mechanism to finance periodic and routine maintenance works promotes sustainability of road projects ' outcomes. Often this must be accomplished in steps . In Nicaragua the steps had the following sequence : in 1998 a law was enacted (under CR 2871-NI) to establish FOMAV without an identified source of funding . This commenced maintenance by contract operations and led to public support for FOMAV . The MTI initiated, in 2002, dialogue with the public, the National Congress, and other levels of government, and completed drafting the amendment to the bill for the surcharge mechanism, which was approved in 2004 to complete the FOMAV as envisioned six years earlier .
4. **Timely training of project unit staff helps compensate for staff turnover** . Project staff turnover was beyond the control of the integrated implementation unit within MTI, due mainly to changes at higher levels of the Ministry . However, this did not prevent the unit from performing satisfactorily, in large part because continued training was undertaken for the new staff.

**14. Assessment Recommended?**     Yes     No

**15. Comments on Quality of ICR:**

The ICR is informative and covers the project thoroughly and fully . It is close to exemplary .  
**a. Quality of ICR Rating :** Satisfactory

