



**INTER-AMERICAN DEVELOPMENT BANK**

## **PROJECT COMPLETION REPORT – PCR**

*INFORME DE TERMINACIÓN DE PROYECTO*

### **Bank Memorandum**

**Project Name: Southern Highway Rehabilitation Project**

**Project Number: BL0001**

**Loan Number: 1081/OC-BL**

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# General Information

## 1.1. Development Objective

The objective of the operation was upgrade the network of primary and feeder roads in southern districts of the country, thereby supporting improvements in the agricultural, tourism and social sectors.

## 1.2. Basic Data

Project Name: Southern Highway Rehabilitation Project

Project Number: 1081/OC-BL

Loan/TC number: BL0001

Executing Agency: MINISTRY OF WORKS AND TRNSPORTATION

Loan Amount(s) (Original): \$16,000,000.00

Loan Amount(s) (Current): \$15,826,133.00

Loan Cumulative Cancellations: \$173,867.00

Total Cost of the Project (Current): \$35,700,000.00

Total Cost of the project (Original): \$32,400,000.00

Author of the Bank Memorandum: Leon Harris

Loan approval date: 1998-01-07

Mid-term evaluation date:

Exit workshop date: 2004-04-06

### 1.3. Summary of Ratings

#### 1.3.1. Last 10 PPMR Ratings (IP, AS, DO)

	2000	2000	2001	2001	2002	2002	2003	2003	2004	2004
	Jun.	Dec.	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
S	S	S	S	S	S	S	S	S	S	S
H	H	H	H	H	H	H	H	H	H	H
P	P	P	HP	HP	P	P	P	P	P	P

IP = Implementation Progress, AS = Assumptions, DO = Development Objectives

### 1.4. Project Timeline

Start up workshop date:

Mid-Term Evaluation date:

Exit workshop date: April 6, 2004

### 1.5. Reference Documents

Country Strategy

Country Portfolio Review Aide Memoire

Administration Mission Aide Memoire

PCR Annex

## Bank Memorandum

### 2.0 BACKGROUND

The Southern Highway Rehabilitation Project was approved in January 1998 after several months of negotiations between the Bank, the Government of Belize, the United Kingdom, the Taiwanese Government and the Kuwaiti Government. The lengthy and at times sensitive negotiations centered on the scope of works, the extent and conditions of financing. Concerns shared by both local and international NGO over the potential environmental, social and economic impacts of the project resulted in a smaller mitigation and planning project- the Environmental and Social Technical Assistance Project (ESTAP).

Before the upgrading of the highway, it consisted of approximately 160 km (100 miles) of gravel road between Punta Gorda Town and Dangriga Town. The road was prone to flooding during the rainy season and sometimes became impassable isolating Punta Gorda from the rest of the country. Moreover, travel time between the southern town and the rest of the country was very time-consuming and the riding quality of the road was poor. The Toledo district, the southernmost district in Belize is also the most remote and has the highest incidence of poverty. Intervention programs for social development and even simple day-to-day commercial and administrative activities have a higher cost compared to the rest of the country. The rehabilitation

of the Southern Highway had as one of its objective the reduction of travel time and associated costs as well as bringing increased economic opportunities to the southern region particularly in the area of agriculture and tourism. The road is a main artery for the banana, citrus, aquaculture and tourism industries in the south.

By the end of December 2003, a total of 144 km of highway had been rehabilitated and upgraded to a paved standard. Of this, the Bank financed 36.4 km, the ICDF 28km under the Bank's supervision, 24 km by the United Kingdom Government and 56 km by the Kuwaitis. All but approximately 16 km of the Highway has been upgraded.

This project was a part of a strategy to stimulate economic activity in the south of Belize as well as to promote the integration of the relatively more depressed southern region with the rest of the country. This project represents what has now become a trend for Belize, the participation and collaboration of two or more financing agencies in the same operation. This helped to reduce the debt burden on the government and people by combining loan and grant financing wherever possible and appropriate. It also helped to reduce the pressure to secure scarce counterpart resources from a constrained national budget.

The project's expected output was achieved and surveys conducted during and immediately following execution indicate that there has been a 53 percent reduction in travel time on the road and traffic counts are eight percent higher than projected. There have been increases in land under cash crop cultivation, numbers of hotel and hotel rooms as well as occupancy rates. All of this has been achieved with little or no negative impact on the social and physical environment in the area.

It is anticipated that the rehabilitated highway will continue to provide new opportunities including increased employment in new enterprises and productivity increases for small farmers that can contribute to the fight against poverty and income disparities between the south and the rest of the country. It is also anticipated that this project will facilitate the economic integration of Belize with Central America through construction of a route to Guatemala and the Pan American Highway.

The execution of the project was carried out through the Project Management Unit created in the Ministry of Works for this purpose. The nature of project financing assisted the staff of the Ministry in expanding their knowledge of the Bank's policies particularly those related to procurement and hence building execution capacity. The fact that this Unit has become a permanent feature of the Ministry with now experienced personnel speaks to institutional sustainability. Other sustainability issues surrounds the maintenance of the investment already made. Here, it is clear that there is some disparity between the Borrowers and the Bank's perspectives. The Ministry of Work's optimism is based on short- term factors such as the current staffing of the Project Unit and the availability of equipment to perform routine maintenance. The Bank's observation is based on the level of priority and commitment that historically has been placed on maintenance within the public sector and the current allocation for this activity in the national budget. Additionally, the borrower believes given that this highway was a national priority, that it is incentive enough to sustain it. The Bank stresses that to ultimately achieve the desired outcomes, the anticipated investment in other sectors in the region

must take place. This improved artery should stimulate new and increased investment in tourism, citrus and banana among others.

Additional measures that can be taken to enhance the project sustainability includes the close monitoring of the national budget allocation to the maintenance of this infrastructure and to continuously engage the borrower in discussions on maintenance based on the annual Maintenance Report submitted by the Project Management Unit. The Bank should collaborate with the borrower in implementing key development programs outlined in the regional plan prepared for Southern Belize under the ESTAP. Resources have not been provided for its implementation. The benefits of the project will increase if the plan is implemented.

As one of the first major operation financed by the Bank in Belize, this project has afforded both the Borrower and the Bank critical learning experiences associated with design and execution. One of the lessons learnt is the need to make the necessary provisions and allocation in the project budget for the timely collection of performance data as many executing agencies are not yet fully sensitized to the need to allocate additional resources from their own budgets for this exercise. Additionally outcome indicators should directly relate to the project outcome, without the need for additional outputs and investments from activities external to the project.

Where appropriate, the use of counterpart resources should be encouraged for advance hiring of consultants to carry out design and supervision, subject to Bank's oversight role as regards cost of services and qualification of the consultants. This will expedite project start-up by reducing procurement delays associated with use of loan resources as was the case under this operation.

## **2.1. RESULTS ANALYSIS (OUTPUTS, OUTCOMES AND IMPACTS)**

**2.1.1. Outputs attained** Description of project outputs by components and analysis of factors that influenced project execution.

**2.1.1.1. Output Indicators Analysis** Complete the indicators of the outputs attained in this component using the same output indicators retrieved from the PPMR. Compare the indicators in the Achieved and Planned columns. If there is a significant gap between them, briefly explain the factors responsible for the gap.

1. Sections. 4 and 5 of the Southern Highway rehabilitated. The original plan was to have 64.4 km of highway rehabilitated and upgraded by January 2003. In fact, 64.4 km were rehabilitated and upgraded by the end of September 2002, of which 36.4km was financed by the Bank (Section 5) and 28km by the International Cooperation and Development Fund (ICDF) of Taiwan. The planned targets for this component were achieved. Section 5, was completed in April 2002 and Section 4 was completed in September 2002, both within contract costs and deadlines.

2. Selected rural feeder roads rehabilitated. The target was to have 128 km. upgraded by end of 2002. 180 km of feeder roads were upgraded to provide rural villages with all-weather access to markets and social services. This component was completed in August 2003. The amount completed is closer to the original target of 176 km. The earlier revision of the target to 128 km

was due to planned reallocation of resources arising from bid prices for the main highway being higher than the budget. However, design modifications for the highway resulted in cost savings, making it possible to meet the original target.

3. Road maintenance capability strengthened through procurement of maintenance equipment and contracting services for road maintenance. The target for this component was for the RMMS maintenance system to be installed and operational in all six maintenance districts by 2001 and maintenance contractors hired. The maintenance system has been installed countrywide. Road maintenance and axle load control equipment has been procured and contractors were hired to carry out maintenance activities.

This component was successfully implemented. By September 2004, the Executing Agency has subsequently completed the implementation of the training of its personnel in the use of specialized equipment; the training was funded by the Caribbean Development Bank as part of the project but its implementation was delayed. This training was completed in July 2005.

**2.1.1.2. Identification of achieved outputs** Bearing in mind the output indicators in the different project components, describe briefly the key outputs achieved by this project

64.4 km of highway were reconstructed to improved horizontal and vertical alignments, graded and provided with drainage structures to ensure acceptable all-weather movement of traffic.

180 km of feeder roads were re-graded and provided with suitable drainage, so as to provide all-weather access to the southern highway; 28 communities benefited from this component.

Routine and periodic maintenance activities were carried out by contract on 50 miles of highway and 80 miles of secondary and feeder roads; maintenance and axle-load control equipment was procured.

**2.1.2. Project outcomes and impacts** Description of the project results in relation with its Development Objective (DO or purpose in the project logical framework)

## **2.1.2 Objectives**

### **Project Objective**

1.To upgrade the network of primary and feeder roads in the southern districts of the country, thereby supporting improvements in the agricultural, tourism and social sectors.

1.1 Reduction in travel time and in transportation costs along the road corridor by 2003.

1.2 Reduction in losses of agricultural products normally due to deficiencies in the transport services by 2003.

**2.1.2.1. Outcome Indicators Analysis** Complete the indicators of achievement in the development objective (outcome) using the same outcome indicators retrieved from the PPMR (key performance indicators). Compare the Achieved and Planned outcome indicators. If there is a significant gap between them, briefly explain the factors responsible for the gap.

Travel time has been reduced from approximately eighty-five minutes to forty minutes (53%), consistent with the projected travel time based on the 60 m.p.h. design speed of the highway. The

computation of vehicle operating costs may be done at the time of the ex-post evaluation for comparison with the base information used in project design. In a survey of project beneficiaries, respondents indicate that some haulage rates have been renegotiated to 40-50% below pre-project rates. Beneficiaries in the banana industry confirm that project benefits include reduced losses in agricultural products arising from improved roads, but their records do not distinguish these benefits from other factors like improved packaging and palletization.

**2.1.2.2. Identification of intermediate outcomes and initial impacts** Considering the achieved project outputs, to the extent possible, identify intermediate outcomes and initial impacts achieved by this project so far.

### **Intermediate Outcome**

The upgraded roads have resulted in a 53% reduction in travel time on the Southern Highway and traffic counts (780 vpd) on completion were 8% higher than projected. Travel time over the entire route to Punta Gorda (105 miles), has been reduced from six to two hours. As well, there is more reliable access to markets and social services for approximately 47000 persons in the districts of Toledo and Stann Creek. The maintenance management capacity of the Executing Agency has been upgraded.

The initial impacts of improved transport conditions have directly and/or indirectly contributed to (i) 20% increase in land under cash crop cultivation; (ii) increases of 24.8% in hotel rooms, 30% occupancy and 23% tourism employment; (iii) reduction in incidence of respiratory infections in schools, along with reduced lateness of students & teachers, resulting in 10% more teaching time; (iv) establishment of 8 new shrimp farms, improved extension services and farm supervision, increased employment (including Mayans and women) and increased property values. Air travel to Punta Gorda has been reduced by 26% while road traffic increased by 116%.

**2.1.2.3. Identification of future outcomes and impacts** Considering the achieved outputs, identify expected future outcomes and impacts and describe how these outputs are critical towards the achievement of outcomes and impacts.

### **Future Outcomes**

No changes in the transportation conditions are anticipated in the future resulting from project activities already undertaken. The Government will need to provide resources to maintain existing levels of service.

### **Future Impacts**

New opportunities, including increased employment in new enterprises and productivity increases for small farmers will contribute to an improvement in the poverty profile and reduce the income disparity in the region compared with the rest of Belize. Along with complementary financing by other donors for the other sections of the highway (Sections 1-3), the project will facilitate the economic integration with Central America through construction of a route (Section 6) to Guatemala and the Pan-American Highway, for which partial financing has been identified.



**2.1.2.4. Analysis of assumptions (from outputs to outcomes)** Identify the necessary conditions towards the achievement of the project outcome and explain why they are necessary

With the upgrading of the primary and feeder road network, the beneficiaries now have access to improved transportation conditions. There are no other conditions necessary for achievement of project outcome.

**2.1.2.5. Pilot question No. 1 (Optional) Distribution of the project benefits within the target population**

No inequalities have been observed.

**2.1.2.6. Pilot question No. 2 – (Optional) Adverse effects of the project**

There is increased risk of accidents and personal injury to residents along the highway. Speed control measures (speed bumps and speed limits) have been put in place to reduce the risk. This situation will be exacerbated as population density increases along sections of the highway, from ribbon development.

**2.1.2.7. Pilot question No. 3 – (Optional) Contribution to the achievement of national / sectoral targets**

Country Strategy

Initial and anticipated impacts of the project demonstrate increased integration of southern Belize with the rest of the country, which is part of the Bank's strategy for Belize. Travel times from Belize City to the south of the country have been reduced from eight hours (in good weather) to four hours. As examples, unlike previously, suppliers in northern districts now make regular on-farm delivery of farm inputs to citrus farms; fish/shrimp products are now transported by road to the Belize City port, and also to Mexico.

**2.1.2.8. Pilot question No. 4 – (Optional) Project changes in response to changes in the context / environment**

There were no changes in policy or project environment that affected the project.

**2.1.2.9. Recalculation of the Internal Rate of Return (IRR)** If the project included ex-ante a calculation of the project's expected rate of return, what was the expected rate of return and what is the observed rate of return?

The EIRR for the IDB/ICDF-funded sections was 15.9% (13.3 to 18.6% in the sensitivity analysis. The calculation of the EIRR was based solely on vehicle operating cost savings. It did not include benefits arising from access to social services, socio-economic integration, tourism development and increased agricultural production. The EIRR will be reviewed as part of the ex-post evaluation (Reference Section 2.5.1).

**2.1.2.10. Recalculation of other cost analysis indicators** If the project included ex-ante any other economic evaluation estimates (cost-effectiveness, efficiency-efficiency and/or cost-benefit analysis), what was the expected indicator and what is the observed indicator?

N/A

**2.1.2.11. Rating of project effectiveness in terms of the development objective (DO)** Bearing in mind the analysis in sections 2.1.1. and 2.1.2., rate the attainment of the project development effectiveness in terms of the development objective.

☒ Very Effective (VE) ☐ Effective (E) ☐ Marginally Effective (ME) ☐ Ineffective (I)

(Explain your rating)

This project (Sections 4 & 5) comprises the northern section of the route connecting Punta Gorda Town in the south of Belize with the rest of the country. Sections 1, 2 & 3 were financed by Kuwait and the DFID. With the completion of the project, southern Belize has been physically integrated with the rest of the country and the objective of the project has been met. Reliable all-weather access has been provided to the southern districts of Belize; for the first time safe, same-day return travel from the capital, Belize City, is now possible. Based on interviews of project beneficiaries, initial impacts include the establishment of new enterprises, increased productivity and increased employment in the tourism, agriculture, aquaculture sectors, including women and traditional Maya farmers, as well as qualitative improvements in health and education services. Since the benefits of the project derive from a private sector-led response to improved transport conditions, the economic activity generated is likely to accelerate and be self-sustaining.

## 2.2. IMPLEMENTATION ANALYSIS

### 2.2.1. Project's performance measurement

**2.2.1.1. Elements for monitoring and evaluation** In a scale from 1 a 4 assess the quality of the following elements required for project monitoring and evaluation:

1. Problem analysis	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 4 <input type="checkbox"/> → High <input type="checkbox"/> N/A
2. Intervention Strategy in response to the problem (rationale)	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 4 <input type="checkbox"/> → High <input type="checkbox"/> N/A
3. Identification of expected outcomes and impacts	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 3 <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
4. Identification of expected outputs	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 4 <input type="checkbox"/> → High <input type="checkbox"/> N/A
5. Indicators of expected outcomes	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 3 <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
6. Indicators of expected outputs	Low <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 4 <input type="checkbox"/> → High <input type="checkbox"/> N/A
7. Baseline for expected outcomes	Low <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> 2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A

8. Baseline for expected outputs	Low ← [ ] [ ] [ ] [ ] [ 4 ] → High [ ] N/A
9. Assumptions from outputs to outcomes	Low ← [ ] [ 2 ] [ ] [ ] [ ] → High [ ] N/A
10. Assignment of responsibilities for data collection	Low ← [ ] [ ] [ ] [ 3 ] [ ] [ ] → High [ ] N/A
11. Project implementation plan	Low ← [ ] [ ] [ ] [ ] [ ] [ 4 ] → High [ ] N/A
12. Procurement plan	Low ← [ ] [ ] [ ] [ ] [ ] [ 4 ] → High [ ] N/A

**2.2.1.2. Critical factors analysis in the project design** Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement.

### Positive factors

A companion project, ESTAP (999/OC-BL), was developed in response to social and environmental issues that arose during the preparation and design of the Southern Highway project. Given the extensive consultation and collaboration with line agencies that was built in to the ESTAP, it was appropriate that data collection for the Southern Highway project was carried out by ESTAP, with reports being submitted by the Ministry of Economic Development (MED), and not by the Executing Agency for the Southern Highway project.

### Negative factors

Refer to “Explanation”, paragraph 2.2.1.3

The MED has had limited capacity to collect the information after completion of the ESTAP. The agencies responsible for generating the information did not see this as a priority, hence there was some difficulty getting the information.

**2.2.1.3. Lessons learned for the project design (adopted measures).** Describe in a concise way what measures were adopted to improve the project design in those aspects related with performance measurement.

Title: Relevance of indicators selected.

Conclusion: Outcome indicators should directly relate to the project outcome, without the need for additional outputs and investments from activities external to the project.

Explanation: The log frame indicators at the purpose level depend on activities in other sectors. While the data collected under the ESTAP operation (999/OC-BL) shows that improved transport conditions were pivotal to these sectors, increases in tonnage of agricultural products passing over the road, number of tourists visiting the region and increased use of social services do not result exclusively from the road improvements, but from inputs from these sectors also, hence the direct impact of the project by itself cannot be ascertained from these indicators. The

indicator at the purpose level was changed (in the PPMR) to reflect direct project benefits, namely, the reduction in travel time as a measure of increased efficiency in the movement of people and goods. Traffic counts have been collected by the Executing Agency and vehicle operating cost data will be collected at the time of the ex-post evaluation (See Section 2.5.1).

**2.2.1.4. Lessons learned for the project design (alternative measures).** Based on your experience in this project, describe in a concise way what alternative measures do you recommend to improve project performance measurement in the design of future operations.

Title: Availability of resources for data collection

Conclusion: The timely collection and use of data to measure performance will be improved if resources are provided as a separate cost item in the budget, to be met from the financing.

Explanation: No resources were provided for the collection of performance data at the outcome level. Many executing agencies are not yet fully sensitized to the need to put additional resources from their own budgets for data collection. Especially where counterpart resources are limited, they are unable to give the necessary priority to data collection and analysis.

**2.2.1.5. Available information during project implementation** In a scale from 1 to 4 rate the level and quality of compliance of the following tasks that should be undertaken by the Executing Agency to obtain the necessary information for project performance measurement:

1. Establishment of processes and mechanisms for data gathering and data analysis (sources of data, responsibilities, periodicity and characteristics of the information) Low ☐ ☐ ☒ ☐ ☐ → High ☐ N/A
2. Data gathering for the outcomes base line Low ☐ ☒ ☐ ☐ ☐ → High ☐ N/A
3. Data gathering for the outputs base line Low ☐ ☐ ☐ ☐ ☒ → High ☐ N/A
4. Data gathering, data analysis and reporting of information on available resources (inputs) and undertaking activities Low ☐ ☐ ☐ ☐ ☒ → High ☐ N/A
5. Data gathering, data analysis and reporting of information on project outputs and their contribution to the achievement of expected outcomes Low ☐ ☐ ☒ ☐ ☐ → High ☐ N/A
6. Data gathering, data analysis and reporting of information on project outcomes and impacts and their contribution to sectoral and national goals Low ☐ ☒ ☐ ☐ ☐ → High ☐ N/A

**2.2.1.6. Critical factors analysis for performance measurement during implementation** Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement during its implementation.

Improved transport conditions do not materialize until completion of the roads, hence the concept of performance measurement at the outcome level during implementation does not apply in this case. For the output level, the normal reporting requirements of the loan, as well as the supervision contract, include provisions for periodic progress measurement and reporting.

**2.2.1.7. Lessons learned during project implementation (adopted measures)** Describe in a concise way what measures were adopted to obtain the required information (in the expected quantity and quality) for the project performance measurement.

See answer to 2.2.1.8

**2.2.1.8. Lessons learned for the implementation (alternative measures).** Based on your experience in this project, describe in a concise way what alternative measures do you recommend to improve project performance measurement in the implementation of future operations.

The standard procedures for measurement of output are adequate for the purpose intended. For the measurement of outcomes, the Executing Agency should continue to collect traffic data but an appropriately selected agency (in this case the Ministry of National Development) should be trained and equipped to measure and analyze other aspects of performance related to impact of the project; this would also develop capacity in the country for conducting ex-post evaluations.

## **2.2.2. Factors affecting project implementation (according to PPMR)**

### **2.2.3. Analysis of factors affecting output delivery and outcome achievement**

**2.2.3.1. Identification of negative factors to produce outputs** Describe which were the main factors (maximum 3) that had a negative influence on the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why.

- (i) The construction contract was awarded fifteen months after loan signature. This period could have been less, but for the delay in posting of the sectoral specialist to Belize, as well as some delay in the prequalification process.
- (ii) The value of the construction contracts for the southern highway exceeded the budget by 18%. The Government was committed to providing additional resources for construction of the highway, resulting in increased demand for local resources, but this (scarcity of resources) threatened the omission of the maintenance component, given the greater priority placed on the main highway. Some time was lost in discussions with the Borrower (GOB-Ministry of Finance) on ways to deal with the matter, the resolution of which made it possible for the implementation of the maintenance component. The foregoing were the main factors responsible for the execution period being extended by nearly two years.

**2.2.3.2. Identification of positive factors to produce outputs** Describe which were the main factors (maximum 3) that had a positive influence on the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why.

- (i) The Bank, on recommendation of the project team, agreed to hire the firm (from New Zealand) that carried out the engineering design, to provide supervision services also, without competition but paid from local resources. This decision eliminated the time that would normally have been required for procurement of a supervisory firm. In light of paragraph 2.2.3.1 (i) above, it facilitated an earlier start of the prequalification process and physical start-up than would have been possible.

(ii) Advance identification of the Project Manager, the experience of the PEU and the consulting firm and the availability of experienced contractors ensured that the outputs were delivered within the contract periods. Also, ongoing close collaboration between the Country Office and the Executing Agency ensured the timely resolution of technical and administrative issues as they arose.

(iii) The annual review meetings, including the participation of the ICDF, assisted in the dialogue between the Bank and the Executing Agency and in resolution of issues.

**2.2.3.3. Identification of negative factors for the achievement of outcomes** Describe what were the main factors (maximum 3) that had a negative influence on the achievement of project outcomes, and explain why.

Regarding the strengthening of maintenance capacity, the maintenance staff of the Executing Agency has just recently been trained in the use of the maintenance equipment and the axle load monitoring program, resulting in a delay in the realization of all anticipated project outcomes. This activity was financed by the CDB and was completed in July 2005.

**2.2.3.4. Identification of positive factors for the achievement of outcomes** Describe what were the main factors (maximum 3) that had a positive influence on the achievement of project outcomes, and explain why.

The complementary investments in Sections 1-3 by other donors to provide access to the south of Belize, as well as the inclusion of the feeder roads to provide access to rural communities, increased the integration of the entire region with the rest of the country.

## **2.2.4. Analysis of project management and lessons learned**

**2.2.4.1. Project Management Analysis** Identify and analyze the effectiveness of adopted measures to address the problems and capitalize on the opportunities related with the critical factor analysis and explain how they were put into practice.

In order to ameliorate the impact of limited local resources, COF/CBL and the Government had earlier agreed that retention payments to the (local) contractor for the Southern Highway be paid by the Government instead of from the Bank's financing, with payments being made to the contractor as GOB resources permit. This allowed for an increase in the Bank's investment in the feeder roads and maintenance-by-contract components so as to ensure greater achievement of project objectives, while maintaining the *pari-passu*. Although the amount finally spent on maintenance was less than the original budget, the activities undertaken were adequate to demonstrate areas in which private maintenance contractors would be most effective in the future.

**2.2.4.2. Lessons learned on project management** Based on your experience with this project, and considering the effectiveness of adopted measures mentioned in the project management analysis, describe in a concise way what alternative measures you recommend to address the problems that may arise during the implementation of similar project.

Where appropriate, encourage use of counterpart resources for advance hiring of consultants to carry out design and supervision, subject to Bank's oversight role as regards cost of services and qualification of the consultants. This will expedite project start-up by reducing procurement delays associated with use of loan resources.

### Rating project implementation (IP)

**2.2.4.3. Rating project implementation** Rate the project implementation considering the above management analysis and the obtained project outputs in the expected quantity and quality, and reasonable timeframe, and reasonable costs.

☒ Very Satisfactory (VS) ☐ Satisfactory (S) ☐ Unsatisfactory (U) ☐ Very Unsatisfactory (VU)

(Explain your rating)

All outputs and outcomes have been substantially achieved. For the most part, the execution delay (Ref. 2.2.3.1) resulted from factors outside the responsibility of the Executing Agency.

## 2.3. SUSTAINABILITY ANALYSIS

### 2.3.1. Institutional / Organizational Strengthening (IOS)

**2.3.1.1. Areas strengthened or improved by the project** Identify those institutional/ organizational areas strengthened or improved by the project, directly or indirectly, and indicate the level of influence (national, regional, local).

Institutional / Organizational Area				Level		
	Yes	No	N/A	National	Regional	Local
1. Legal and regulatory framework	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Procedures, manuals, operational guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Capacity						
3.1. Top management capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2. Middle management capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3. Information Systems capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4. Performance measurement (M&E capacity)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5. Client-oriented service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Functional and organizational structure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Budgeting / Financial management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Intra- / Inter-sectoral coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Intra - / Inter-organizational coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Staffing / Human resources development	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Procurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Self-evaluation, auditing & accountability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2.3.1.2. IOS achieved by the project in the country** Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the country.

(i) The incorporation of environmental protection and monitoring measures in the design of the Southern Highway Project has resulted in increased sensitivity to environmental issues in project design. Environmental protection measures are now more widely appreciated as a routine aspect of many operations.

(ii) The project was seen as an instrument of regional integration and not just as a means of providing physical access to southern Belize, hence the parallel operation, ESTAP (999/OC-BL) was developed and with it the concept of community participation was introduced. Since then the notion of a participatory approach to development planning has gained wide acceptance in the country, resulting in increased appreciation and the strengthening of skills in this area at the national level.

**2.3.1.3. IOS achieved by the project in the Executing Agency** Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the Executing Agency. Compare the current situation with the situation before the project.

The Executing Agency has traditionally carried out all road maintenance. Because of the project, its capacity has now been enhanced through the experience gained in the use of private maintenance contractors; this will contribute to more efficient use of the limited maintenance budget. The portable weighbridges procured under the project now enable the Ministry of Works to monitor and enforce compliance with statutory axle-load limits on the highways.

**2.3.1.4. Rating the project's contribution to the Institutional / Organizational** Rate the extent in which the project contributed to the institutional / organizational strengthening in the Borrowing Country and the Executing Agency.

☐ Very Relevant (VR)                      ☐ Relevant (R)                      ☒ Partially Relevant (PR)                      ☐ Irrelevant (I)

The project did not include a component specifically for institutional and organizational strengthening; rather, its execution was facilitated by the existence of a stable and well-organized Executing Agency with experience in implementing similar externally funded projects.



Nevertheless, if the Executing Agency addresses the issues aimed at improving maintenance management and implements the axle-load control program, its capacity to carry out one of its core functions will have been enhanced.

Executing Agency with experience in implementing similar externally funded projects. Nevertheless, if the Executing Agency addresses the issues aimed at improving maintenance management and implements the axle-load control program, its capacity to carry out one of its core functions will have been enhanced.

## 2.3.2. Project sustainability

**2.3.2.1. Scope of project sustainability** Through consultation with the Executing Agency, define what actions, services and/or outputs should be sustained, and for how long, to ensure the sustainability of the expected project's outcomes and future impacts.

(i) The physical infrastructure should be maintained in a serviceable condition, since this is critical to the continued availability of satisfactory transport conditions. The maintenance plan developed sets out the timing of maintenance activities for each element of the roadway and should be implemented.

(ii) It is also important that the axle-load control program be initiated and maintained, so as to minimize damage to road pavements from heavy commercial vehicles.

**2.3.2.2. Basis for sustainability analysis** In a 1 to 4 scale estimate the probability of the existence during the first year after project completion (and the termination of IDB financing) of the following institutional and organizational settings, arrangements or resources in the country, needed to sustain the products, actions, services, outputs, outcomes and future impacts initiated by the project and described in 2.3.2.1.

Institutional / Organizational arrangements and resources	Probability
1. Executing Agency top management's support	Low ← [ ] [ ] [ ] [ <b>3</b> ] [ ] → High [ ] N/A
2. Policy, legal and regulatory framework	Low ← [ ] [ ] [ ] [ ] [ <b>4</b> ] → High [ ] N/A
3. Preparedness and organizational capacity	Low ← [ ] [ ] [ ] [ <b>3</b> ] [ ] → High [ ] N/A
4. Inter-organizational coordination	Low ← [ ] [ ] [ ] [ ] [ ] [ ] → High [ <b>X</b> ] N/A
5. Availability of financial resources	Low ← [ <b>1</b> ] [ ] [ ] [ ] [ ] [ ] → High [ ] N/A
6. Key personnel	Low ← [ ] [ ] [ ] [ <b>3</b> ] [ ] [ ] → High [ ] N/A
7. Financial resources for infrastructure maintenance	Low ← [ <b>1</b> ] [ ] [ ] [ ] [ ] [ ] → High [ ] N/A
8. Project beneficiaries' support	Low ← [ ] [ ] [ ] [ ] [ ] [ ] → High [ <b>X</b> ] N/A
9. National government support	Low ← [ ] [ ] [ ] [ <b>3</b> ] [ ] [ ] → High [ ] N/A

#### **2.3.2.3. Root-cause analysis of factors affecting negatively the project sustainability**

Considering the estimates described in the previous question and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 2.3.2.1 may not be sustainable, and explain why.

The allocation of resources for infrastructure maintenance has not been a priority, especially given the fiscal constraints at the national level. Only approximately 50% of the estimated requirements for maintenance has been budgeted for the first year after implementation.

#### **2.3.2.4. Root-cause analysis of factors contributing positively to the project sustainability**

Considering the previous analysis, and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 2.3.2.1 may be sustainable, and explain why.

The training of maintenance personnel of the Executing Agency being undertaken with resources from the Caribbean Development Bank will contribute to more efficient use of the limited resources provided. Local legislation already allows for the axle-load control program

**2.3.2.5. Lessons learned on sustainability (adopted measures)** Based on your experience with this project, and considering the previous analysis, describe in a concise way what measures adopted in the project design and/or implementation were effective towards project sustainability, and explain how they were put into practice.

Title: Alternative road maintenance approaches.

Conclusion: The Executing Agency should use private contractors for road maintenance, where appropriate.

Explanation: The project design allowed for the use of private road maintenance contractors, on a pilot basis, as a possible alternative and/or complementary to maintenance by force account. The lessons learned from this sub-component have been documented and the Executing Agency intends to examine the comparative advantage of this approach in relation to work by force account and decide on the most effective way to utilize the maintenance budget.

**2.3.2.6. Lessons learned on sustainability (alternative measures)** Based on your experience with this project, and considering the previous analysis, describe in a concise way what alternative measures you recommend during project design and/or implementation to improve the sustainability of future projects.

Title: Additional resources for maintenance

Conclusion: The benefits of increased economic activity may be applied to maintenance of the facilities.

Explanation: The improved transport conditions have contributed to increased economic activity from new investments and better business for existing enterprises in the project area. Resources

for infrastructure maintenance could be provided if the GOB were to allocate a portion of the additional tax revenue generated in the area (e.g. increased property tax revenue) to maintenance.

**2.3.2.7. Sustainability action plan** Considering the previous analysis, describe the significant actions that the Borrower and/or the IDB should undertake during the next year to ensure sustainability of future impacts, outcomes, products, actions and/ or services identified in 2.3.2.1.

The Executing Agency should

- (i) Complete implementation of the training program for maintenance personnel and initiate the maintenance plan for the highway;
- (ii) Analyze the costs of carrying out specific maintenance activities by contract and force account, and use the findings to ensure more value for money spent.

**2.3.2.8. Rating project sustainability (S)** Considering the previous analysis and the probability of implementing the Sustainability Action Plan, rate the probability for the sustainability of this project during the next three (3) years:

☐ Very Probable (VP)                      ☐ Probable (P)                      ☒ Low Probability (LP)                      ☒ Improbable (I)

While the executing Agency is committed to ensuring improved efficiency in the use of limited resources, the roads will be maintained in a suitable condition only if resources are provided by the Ministry of Finance. Recent trends in budgetary allocations suggest a low probability that resources will be provided to sustain an acceptable level of service for the secondary and feeder roads. If this obtains, as unpaved surfaces, it will result in their deterioration to an unsuitable condition within approximately three years.

## 2.4. Executing Agency Performance

**2.4.1. Executing Agency performance in key areas** Assess the Executing Agency Performance (including co-executors and the Project Executing /Coordinating Unit) in the following areas:

1. Participation and quality of its contributions during project design	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
2. Organization for project execution (Executing/Coordinating Unit's staff, infrastructure, coordination, communication, etc.)	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
3. Coordination and integration of the project Executing/Coordinating Unit with the Executing Agency	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
4. Establishing a monitoring and results framework (baseline data, systems, procedures, data analysis and reporting, etc.)	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
5. Executing/Coordinating Unit's management and decision-making capacity	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
6. Timeliness in the fulfillment of the IDB's policies, procedures and contractual clauses	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A

7. Financial management (securing counterpart resources, disbursements, quality and timeliness of AFS, etc.)	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
8. Timeliness and efficiency for procurement of goods, works and consulting services	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
9. Executing Agency top-level management's leadership, ownership and support to project execution	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
10. Concrete actions to secure project sustainability	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A

#### **2.4.2. Lessons learned on organization and management of the PCU (adopted measures)**

Based on your experience with this project, identify what adopted measures regarding the structure, organization and processes of the Coordination/Executing Unit, as well as the personnel profiles, were effective and analyze how they were put into practice.

The existence of a separate PCU with dedicated staff, as well as the ongoing commitment of the Executing Agency, contributed to timely decision-making and resolution of issues within its control.

#### **2.4.3. Lessons learned on organization and management of the PCU (alternative measures)**

Considering the above assessment, if in a future project you would have the opportunity to re-design the structure, organization and processes of the Coordination/ Executing Unit, as well as the personnel profiles, describe the alternative measures you would propose to improve their performance.

The execution arrangements, including the formal and informal meetings and contacts, are the most appropriate for this type of project in Belize.

**2.4.4. Rating the Executing Agency performance (EAP)** Based on the above performance assessment made in this section, on the achieved project results, as well as on the Executing Agency's efficiency during project implementation, rate the Executing Agency performance:

☐ Very Satisfactory (VS)      ☒ Satisfactory (S)      ☐ Unsatisfactory (U)      ☐ Very Unsatisfactory (VU)

(Explain your rating)

→ The execution of this project was well within the capacity of the executing Agency, given its experience and tradition with similar types of projects. The satisfactory performance of the E.A. is reflected in the successful completion of the project and the procedures in place to address issues as they arise. Implementation delays, in general, arise from factors outside the control of the Executing Agency.

## 2.5. Foundations for the Ex-post Evaluation

**2.5.1. Provisions for ex-post evaluation** Establish if this operation requires an ex-post evaluation according to the Loan Agreement. If applicable, provide the following information about the provisions taken (see agreements among the IDB, Borrower and Executing Agency in the Project Completion Workshop Aide Memoire):

1. Does the Loan Agreement require an ex-post evaluation for this operation? ☐ No ☒ Yes
2. What will be its schedule? Start up date: 1/9/2006  
Submission date: 29/12/2006
3. Who are the responsible parties for carrying out the evaluation? ☒ IDB ☐ Borrower
4. What is the estimate of the costs involved? **USD\$40,000.00**
5. How the cost involved will be financed? ☐ IDB loan's funds  
☐ Borrower financing  
☒ Other source

If financing comes from other source, please specify:

➔ According to the loan contract, the Bank will fund and carry out the ex-post evaluation, which is due four years after project completion (December 2003). However, given that the highway was completed in September 2002 (in advance of the other components), the ex-post evaluation may be carried out in September 2006. The Bank should identify resources for data collection and evaluation in fiscal year 2006.

**2.5.2 Analysis of the ex post evaluation capacity** Review the capacity of the Executing Agency, as well as its infrastructure and information systems to collect, review and report information on the achievement of future outcomes and impacts, and the main negative and positive factors that may affect this evaluation.

N/A

## 2.6. Other lessons learned and recommendations

### 2.6.1. Additional lessons learned and recommendations

In addition to the lessons learned and recommendations recorded in previous sections of this report, this section offers users the opportunity to state the lessons learned and recommendation that may be helpful in the design and/or implementation of new projects

1. Southern Belize has now been physically integrated with the rest of the country through the project and a development plan has been prepared through ESTAP. However, no resources have been provided for its implementation. The benefits of the project will increase if the plan is implemented.

2. Now that the project is completed and acting as a catalyst to economic growth, as well as to social and land use change in Stann Creek and Toledo, there is need to promote continued local participation in the development process.
3. The Bank should further sensitize and support Executing Agencies in the area of data collection and analysis for performance measurement, as well as other aspects of project evaluation.

## Annexes

### Annex 1A - Source of Financing (Amounts in thousands US\$)

Annex 1A Source of Funding

Category	Original				Actual				GOB			
	IDB	Borrower	Other Sources	Total	IDB	Borrower	Other Source	Total	IDB	Borrower	Other Source	Total
Engineering	\$ -	\$ 500,000	\$ 1,500,000	\$ 2,000,000	\$ 19,642	\$ 2,933,661	\$ 885,930	\$ 3,809,233		486.73%	-42.49%	90.46%
Direct Costs	\$ 11,000,000	\$ 2,000,000	\$ 9,700,000	\$ 22,700,000	\$ 11,823,218	\$ 4,245,905	\$ 9,950,000	\$ 26,019,123	7.48%	112.3%	2.58%	14.62%
Associated Costs	\$ 1,400,000	\$ 1,600,000	\$ 200,000	\$ 3,200,000	\$ 1,839,273	\$ 221,585	\$ -	\$ 2,060,858	31.38%	-86.15%	-100%	-35.60%
test	\$ 44	\$ 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-100%	-100%		-100%
	\$ 12,400,044	\$ 4,100,003	\$ 11,400,000	\$ 27,900,047	\$ 13,682,133	\$ 7,401,151	\$ 10,805,930	\$ 31,889,214.00	10.34%	80.52%	-5.21%	14.30%

### Annex 1B - Schedule of Investments (Amounts in thousands US\$)

Annex 1B Investment Calender  
(US\$000')

Years	Original				Actual				GOB
	IDB	Borrower	Others	Total	IDB	Borrower	Others	Total	
1	\$ 7,000,000	\$ 1,000,000	\$ 5,900,000	\$ 13,900,000	\$ 2,600,356	\$ 1,500,000	\$ 2,600,000	\$ 6,700,356	-51.80%
2	\$ 4,000,000	\$ 1,000,000	\$ 4,500,000	\$ 9,500,000	\$ 4,544,406	\$ 2,000,000	\$ 3,600,000	\$ 10,144,406	6.78%
3	\$ 3,000,000	\$ 1,200,000	\$ 1,000,000	\$ 5,200,000	\$ 4,218,406	\$ 2,000,000	\$ 3,200,000	\$ 9,418,406	81.12%
4	\$ 2,000,000	\$ 1,400,000	\$ 450,000	\$ 3,850,000	\$ 1,433,948	\$ 1,900,000	\$ 1,500,000	\$ 4,833,946	25.56%
5	\$ -	\$ -	\$ -	\$ -	\$ 3,029,017	\$ 200,000	\$ 500,000	\$ 3,729,017	
	\$ 16,000,000	\$ 4,600,000	\$ 11,850,000	\$ 32,450,000	\$ 15,826,133	\$ 7,600,000	\$ 11,400,000	\$ 34,826,133	7.32%

## Annex 1-C

### Financial Information and Audited Financial Statements

(To be completed by the Financial Specialist in the Country Office)

**1. Capacity of the Executing Agency** Evaluate in general the Executing Agency's capacity to manage efficiently and transparently the project resources (information systems, procedures, capacity of staff, etc.)

Based in the financial visits reports, Semiannual Progress Reports and the Audited Financial Statements, the Executing Agency has demonstrated that its capacity to manage the program funds in a efficient and transparent manner has satisfied the Bank's requirements.

**2. Accounting System and Internal Control:** Evaluate the efficiency of the accounting and internal control systems used by the Executing Agency during the implementation of the project to produce trustworthy financial information in a timely fashion.

As the auditors indicated in their annual report, no significant weaknesses were found in the principal controls of the project applied. The accounting system reflects and presents fairly, in all material respects, the receipts and disbursements of this project.

**3. Quality of the financial Information:** Evaluate the quality of the financial information presented to the IDB by the Executing Agency during the implementation of the project (Progress Reports, Reports on the Revolving Fund, Financial Statements, etc.)

The financial information included in all the reports received from the Executing Agency, likewise the audited financial reports and the Semiannual Reports, complied with the Bank requirements; certainly such information was sufficient and accurate, as the auditors certified in their reports.

**4. Audited Financial Statements:** Taking into consideration the track record appearing in the LMS about the ratings of the Audited Financial Statements (Unqualified, Qualified, Adverse, Disclaimer), evaluate in general terms the quality and timeliness of presentation of the Audited Financial Statements.

The AFS were presented to the Bank in a timely fashion and all of them had an unqualified opinion from the auditors. The quality of the AFS received complied with the Bank norms as they are set forth in the document AF-300.

**5. Lessons learned:** Identify principal lessons learned from the execution of this operation, which could be used to improve financial and accounting management in future, operations

During the design stage of the project, there should be a more detailed analysis of the executing unit or the borrower's administrative capacity, in order to identify and resolve institutional technical capacity problems or difficulties, that could delay the execution, and the implementation of accounting and control systems.

# **PROJECT COMPLETION REPORT – PCR**

**Project Execution Unit  
Ministry of Works  
Belmopan City, Belize**

## **Memorandum**

**Submitted to the Inter-American Development Bank (IADB)**

**(March 2004)**





**The ability of this report to reflect project results at completion, foster sustainability of projects benefits and capitalize on lessons learned depends on the participation of the Borrowing Institution, the Executing Agencies, and the project beneficiaries in the preparation of this report.**

**Therefore, your contribution as author of the Executing Agency Memorandum will be of great value to the extent that project implementation knowledge and experience, the analysis of information on results and the views of beneficiaries can be transmitted objectively and independently.**

#### **Instructions to complete the Memorandum**

To complete this memorandum, please bear in mind the following recommendations:

- ❑ Do not forget to complete the cover page and the box regarding basic data by providing the necessary information.
- ❑ It is very important that you review the PCR Guidelines that will be provided to you by the Bank's Country Office, in particular, the technical annex on "Practical guidelines to prepare the PCR". This annex includes guidance, tips and practical examples to assist you in completing the required information. Remember that the questions for the Bank and for the Executing Agency, as well as the appropriate numbering are the same, except for the first digit (for the Bank they start with number 2, i.e. 2.1.1.1., while for the executing Agency they start with number 3, i.e. 3.1.1.1.)
- ❑ Answer the questions in a concise manner. The desired length for each response is 10 lines maximum. Please do not exceed 15 lines per response. Should you need to attach important relevant information documenting project results, please use Annex 5, "Documental Annex". This optional material can be sent to the Bank's Country Office as a separate document (see PCR guidelines for a description of this annex).
- ❑ **Note:** This template takes a few minutes to save your information due to the buttons available to mark responses.

### Project Basic Data

Project Name: **Southern Highway Upgrading Project**

Project Number: **BL0001**

Loan Number /TC: **1081/OC-BL**

Executing Agency: **Project Execution Unit – Ministry of Works**

Name of the Author of the Executing Agency Memorandum: Mr. Edgar E. Puga

Position in the Executing Agency: Director – Project Execution Unit

## 3. EXECUTING AGENCY MEMORANDUM

### 3.1 RESULTS ANALYSIS (OUTPUTS, OUTCOMES AND FUTURE IMPACTS)

**3.1.1 Outputs attained.** Under the Southern Highway Upgrading Project, the outputs attained were the complete upgrading of the Sections 4 and 5 of the Southern Highway some 64.4 km of roadway. In addition, selected rural feeder roads were rehabilitated to improve the conditions of the rural communities and also the network of gravel roads in the southern part of Belize. The Southern Highway Upgrading Project which also included the implementation of a Road Maintenance by Contract Project also attained successful results in the strengthening on the road maintenance capabilities of the Ministry and also the experience of local contractors.

**3.1.1.1. Output Indicators Analysis.** Complete the indicators of the outputs attained in this component using the same output indicators retrieved from the PPMR. Compare the indicators in the Achieved and Planned columns. If there is a significant gap between them, briefly explain the factors responsible for the gap.

PLANNED	ACHIEVED
Component 1	Component 1
64.4 km rehabilitated and upgraded by Jan 2003	64.4 km rehabilitated and upgraded by Jan 2003
Component 2	Component 2
128 km upgraded by end of 2002	178 km upgraded by end of 2002
Component n	Component n
RMMS maintenance system installed and operational in all six maintenance districts by 2001 and maintenance contractors hired.	RMMS maintenance system installed and operational in all six maintenance districts by 2001 and maintenance contractors hired.

**3.1.1.2. Identification of achieved outputs.** Bearing in mind the output indicators in the different project components, describe briefly the key outputs achieved by this project

- 1 Upgrading of 64.4km of the Southern Highway to a paved international Standard.
- 2 Rehabilitation of 178 km of Feeder roads in the Stann Creek and Toledo districts.
- 3 Strengthening of the Road Maintenance Capabilities of the Ministry of Works and the rehabilitation of over 130 km of secondary and feeder road across the country of Belize. And the procurement of maintenance equipment.

**3.1.2. Project outcomes and impacts.** Under the Southern Highway Upgrading Project the following results were achieved based on the successful implementation of the project: the 64.4 km section of the highway was completely upgraded and paved to designed standards, all mitigations measures for direct environmental impacts were effectively implemented and all mitigation measures for direct social impact were also effectively implemented.

**3.1.2.1. Outcome Indicators Analysis.** Complete the indicators of achievement in the development objective (outcome) using the same outcome indicators retrieved from the PPMR (key performance indicators). Compare the Achieved and Planned outcome indicators. If there is a significant gap between them, briefly explain the factors responsible for the gap.

PLANNED	ACHIEVED
To upgrade the network of primary and feeder roads in Southern Districts of the country, thereby supporting improvements in the agricultural, tourism and social sectors.	Reduction in travel time and transportation costs along the road corridor by 2003  Reduction in losses of agricultural products normally due to deficiencies in the transport services by 2003

Factor responsible for the difference (if any):



**3.1.2.2. Identification of intermediate outcomes and initial impacts.** Considering the achieved project outputs, to the extent possible, identify intermediate outcomes and initial impacts achieved by this project so far.

➔ After the completion of the Southern Highway Upgrading Project some intermediate outcomes identified so far are; complete upgrading and rehabilitation of 64.4km of road, upgrading and maintenance of various feeder and secondary road, improved driving conditions for residents of Stann Creek and Toledo districts and the development of the entire south both socially and economically. Initial impacts achieved by the project so far are; the road is passable all year, the living conditions and economical stature of residents in the immediate vicinity has improved, increase in agricultural production, vehicle operating cost and travel time has reduce for motorist, the number of tourist visiting the Southern Region has increased and the project has now provided enhanced access for the poorer communities in the south to access schools and hospital. .

**3.1.2.3. Identification of future outcomes and impacts.** Considering the achieved outputs, identify expected future outcomes and impacts and describe how these outputs are critical towards the achievement of outcomes and impacts

➔ Based on the completion of the Sections 4 and 5 of the Southern Highway future outcomes and impacts are; improved transportation conditions for agricultural products, the tourism sector and to facilitate and improve access to education and health services. In addition, based on the implementation of the feeder road and road maintenance project possible future impacts could be the availability of Ministry of Works resources to be allocated for other maintenance activities. The upgrading and maintenance of the Southern Highway and the selected feeder roads will improved the living conditions and accessibility for residents and motorist alike and it is anticipated that the social development of the communities in the area will continuously improve as the entire project in completed.

**3.1.2.4. Analysis of assumptions (from outputs to outcomes).** Identify the necessary conditions towards the achievement of the project outcome and explain why they are necessary.

➔ In order for the Southern Highway Upgrading Project to have been successful, the following assumptions had to be made in order to achieve the main outputs of the project. It is anticipated that the Counterpart funds will be provided in a timely manner and that the ICDF funding will be in place. It was also important to assume that the counterpart funds will be provided and available to accommodate payment to contractor as soon as requested. It was also assumed that if the Feeder Road Upgrading Project and the Road Maintenance Project were to be successfully implemented, the Ministry would be required to have a commitment to RMMS. In addition, in order to mitigate all environmental and social impacts under the project, it was also assumed that GOB would have a commitment to high environmental standards and that the ESTAP Project is implemented as planned. These assumptions were necessary in order to facilitate the successful implementation of the project and in order to achieved the outputs.

**3.1.2.5. Pilot question No. 1 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR.** Have you observed inequalities in the access of the target population to project benefits based on gender, location, ethnicity, rural/urban sector, income group or other reason? If so, what are the reasons behind them?

➔

**3.1.2.6. Pilot question No. 2 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR.** Were any unintended adverse effects produced by this project to the population or to the environment? If so, what measures have been taken?

➔ No unintended adverse effects were produced by this project. to the population or to the environment.

**3.1.2.7. Pilot question No. 3 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR.** The results of the project have most likely contributed to the attainment either of the established goals of the Borrowing Country's sectoral or national strategies or to the indicators of the Bank's Country Strategy. If this has been the case, specify which objective or result indicator the project has contributed towards and explain how and to what extent it does.

➔ The objective or result indicator that the project has contributed towards is the improvement of the economic opportunities and social development for the people living in the southern region by integrating the southern part of the country with the rest of Belize. This objective can be verified by the achievement of regional development plan and the improvement of the quality of life for people in the Toledo and Stann Creek districts. The extent as to how far this objective has been attained is limited to a certain extent as the entire Southern Highway Project is incomplete however, the people using the completed sections 4 and 5 have benefited from this project and the objective has been achieved.

**3.1.2.8. Pilot question No. 4 – (Under construction). This question is optional for operations with a PCR due date prior to February 1, 2005. Before this date, answers to this question will only be required for those operations selected in a pilot group for completing the full version of the PCR.** Were there any significant changes in the project context and in sectoral/national policies and/or development strategies? If so, explain how the project was adapted to respond to these changes.

→ There were no significant changes in the project context and in sectoral/national policies and/or development strategies that would have affected the project.

**3.1.2.9. Recalculation of the Internal Rate of Return (IRR).** If the project included ex-ante a calculation of the project's expected rate of return, what was the expected rate of return and what is the observed rate of return?

→ The expected rate of return was 12%. The observed rate of return is x%.

**3.1.2.10. Recalculation of other cost analysis indicators.** If the project included ex-ante any other economic evaluation estimates (cost-effectiveness, efficiency-efficiency and/or cost-benefit analysis), what was the expected indicator and what is the observed indicator?

→

**3.1.2.11. Rating of project effectiveness in terms of the development objective (DO).** Bearing in mind the analysis in sections 2.1.1. and 2.1.2., rate the project effectiveness in terms of attainment of the development objective.

☒ Very Effective (VE)

☐ Effective (E)

☐ Marginally Effective (ME)

☐ Ineffective (I)

Explain your rating

→ The Southern Highway Upgrading Project was very effective in that many of the development objectives of the project were attained. The project's main objective which was to improve the economic opportunities for the people living in the southern region and to improve the transportation conditions for agricultural products, the tourism sector and to facilitate access to education and health has been achieved. The region has significantly expanded since the completion of sections 4 and 5 of Southern Highway Project and the social and economic developments has been steadily improving.

## 3.2. IMPLEMENTATION ANALYSIS

### 3.2.1. Project's performance measurement

**3.2.1.1. Elements for monitoring and evaluation.** In a scale from 1 a 4 assess the quality of the following elements required for project monitoring and evaluation:

1. Problem analysis	Low ← <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> → High <input type="radio"/> N/A
2. Intervention Strategy in response to the problem (rationale)	Low ← <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> → High <input type="radio"/> N/A
3. Identification of expected outcomes and impacts	Low ← <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> → High <input type="radio"/> N/A
4. Identification of expected outputs	Low ← <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> → High <input type="radio"/> N/A
5. Indicators of expected outcomes	Low ← <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> → High <input type="radio"/> N/A

6. Indicators of expected outputs	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
7. Baseline for expected outcomes	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
8. Baseline for expected outputs	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
9. Assumptions from outputs to outcomes	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
10. Assignment of responsibilities for data collection	Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
11. Project implementation plan	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
12. Procurement plan	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A

**3.2.1.2. Critical factors analysis in the project design.** Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement

→ The three factors that had a major influence in the project performance measurement were:

- The idea of providing a gravel road for the South instead of a paved one.
- Due to improvements, it was difficult to convince the NGO's to support the project.
- Assumptions from outputs to outcomes,
- Project Implementation Plan and the,
- Procurement Plan for the execution of the project.

**3.2.1.3. Lessons learned for the project design (adopted measures).** Describe in a concise way what measures were adopted to improve the project design in those aspects related with performance measurement







→ After extensive consultations with the Government of Belize over a long period of time the paved standard.

**3.2.1.4. Lessons learned for the project design (alternative measures).** Based on your experience in this project, describe in a concise way what alternative measures you recommend to improve project performance measurement in the design of future operations

→ Prior to final design of projects by the funding agency, comprehensive consultations with the Country's government is necessary to ensure the project will be able to meet the Government's needs and not necessarily what the funding agency thinks are the needs

**3.2.1.5. Available information during project implementation.** In a scale from 1 to 4 rate the level and quality of compliance of the following tasks that should be undertaken by the Executing Agency to obtain the necessary information for project performance measurement:

1. Establishment of processes and mechanisms for data gathering and data analysis (sources of data, responsibilities, periodicity and characteristics of the information)	Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> → High <input type="checkbox"/> N/A
2. Data gathering for the outcomes base line	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A
3. Data gathering for the outputs base line	Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A

4. Data gathering, data analysis and reporting of information on available resources (inputs) and undertaking activities Low ←  → High  N/A
5. Data gathering, data analysis and reporting of information on project outputs and their contribution to the achievement of expected outcomes Low ←  → High  N/A
6. Data gathering, data analysis and reporting of information on project outcomes and impacts and their contribution to sectoral and national goals Low ←  → High  N/A

#### 3.2.1.6. Critical factors analysis for performance measurement during implementation.

Considering the elements assessed above, describe which were the main factors (maximum 3) that had a major influence (negatively or positively) in the project performance measurement during its implementation

- ➔ Toward the end of the project we were short on available local counterpart funding.
- Difficulty for the Bank to disburse funds to smaller (Micro Enterprise Contractors) contracts.
- The project finished ahead of its original program

**3.2.1.7. Lessons learned during project implementation (adopted measures).** Describe in a concise way what measures were adopted to obtain the required information (in the expected quantity and quality) for the project performance measurement

➔ For the Periodic Maintenance by Contract and the Micro Maintenance Contract, the project engineers defined critical factors for the successful completion of the said project. These factors were based on whether the client (Government of Belize) achieved value for the available funding.

**3.2.1.8. Lessons learned for the implementation (alternative measures).** Based on your experience in this project, describe in a concise way what alternative measures you recommend to improve project performance measurement in the implementation of future operations

- ➔ The experience in management of maintenance activities has demonstrated areas where this approach may be best used and where it is more costly. MOW is documenting and analyzing the results of activities so as to assist in more effective maintenance management based on a mix of the private and public sector patterns.
- The Bank should continue dialogue with the Government regarding an effective maintenance strategy to ensure that roads improved maintain the levels of service provided under the project.

#### 2.2.3. Factors affecting project implementation (according to PPMR)

(As useful information to answer section 3.2.3. it is advisable to review the factors affecting project implementation recorded in the PPMR. The Bank's Country Office should be able to provide this information).

Contributions from co-financing institutions (ICDF & CDB) are provided in a timely manner.

The Government of Belize makes available the required counterpart funds throughout the life of the project.

The Executing agency is able to retain the technical staff hired for the project.

#### 3.2.3. Analysis of critical factors affecting project success



## Critical factors affecting output delivery

**3.2.3.1. Identification of negative factors to produce outputs.** Describe which were the main factors (maximum 3) which affected negatively the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why

- ➔ Availability of Funding.
- Inconsistency of construction materials
- Slow procurement of contractors

**3.2.3.2. Identification of positive factors to produce outputs.** Describe which were the main factors (maximum 3), which contributed positively to the implementation of project components and the delivery of products (outputs) in terms of quantity, quality and timeliness, and explain why

- ➔ Supervision of works by International engineering and supervision consultants.
- Implementation and management of project by the MOW.
- Disbursement of loan funds by the funding agency.

## Critical factors for achieving project outcomes

**3.2.3.3. Identification of negative factors for the achievement of outcomes.** Describe which were, the main factors (maximum 3), which affected negatively the achievement of project outcomes and explain why

- ➔ Availability of Funding.
- Inconsistency of construction materials
- Slow procurement of contractors

**3.2.3.4. Identification of positive factors for the achievement of outcomes.** Describe which were the main factors (maximum 3), which contributed positively to the achievement of project outcomes and explain why

- ➔ Supervision of works by International engineering and supervision consultants.
- Implementation and management of project by the MOW.
- Disbursement of loan funds by the funding agency.

## 3.2.4. Analysis of project management and lessons learned

**3.2.4.1. Project Management Analysis.** Identify and analyze the effectiveness of adopted measures to address the problems and capitalize on the opportunities related with the critical factor analysis and explain how they were put into practice

➔ During the implementation, the Bank was a part of the project management process by attending progress meetings, and holding annual project review missions

**3.2.4.2. Lessons learned on project management.** Based on your experience with this project, and considering the effectiveness of adopted measures mentioned in the project management analysis describe in a concise way what alternative measures you recommend to address the problems that may arise during the implementation of similar future projects

➔ Due to the close proximity of the Bank's country office to the project site it was very aware of financial progress. So much so that if Belize's Central government had fallen behind on payments, the Bank would also fall behind on payments to, perhaps increase pressure and attention on the Contractors.

Due to the existence of a material source that was in an environmentally sensitive area (nesting site for the rear Macaw Parrot), new sources of road construction material had to be identified; this induced a cost implication on the project. Subsequent to this there were many discussions between the Government and the Funding Agency to try to identify areas where savings could be realized to balance cost increases.

### Rating project implementation (IP)

**3.2.4.3. Rating project implementation.** Rate the project implementation considering the above management analysis and the obtained project outputs in the expected quantity and quality, reasonable timeframe, and reasonable costs

☒ Very Satisfactory (VS)

☒ Satisfactory (S)

☐ Unsatisfactory (U)

☐ Very Unsatisfactory (VU)

Explain your rating



## 3.3. SUSTAINABILITY ANALYSIS

### 3.3.1. Institutional / Organizational Strengthening (IOS)

**3.3.1.1. Areas strengthened or improved by the project.** Identify those institutional / organizational areas strengthened or improved by the project, directly or indirectly, and indicate the level of influence (national, regional, local).

Institutional / Organizational Area				Level		
	Yes	No	N/A	National	Regional	Local
1. Legal and regulatory framework	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Procedures, manuals, operational guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Capacity						
3.1. Top management capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2. Middle management capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3. Information Systems capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4. Performance measurement (M&E capacity)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5. Client-oriented service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Functional and organizational structure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5. Planning	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Budgeting / Financial management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Intra- / Inter-sectoral coordination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Intra - / Inter-organizational coordination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Staffing / Human resources development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Procurement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Self-evaluation, auditing & accountability	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**3.3.1.2. IOS achieved by the project in the country.** Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the country.

→ 64.4 km of rehabilitated and upgraded highway

Additionally, the upgraded network of primary and feeder roads in Southern districts of the country, thereby supporting improvements in the agricultural, tourism and social sectors

**3.3.1.3. IOS achieved by the project in the Executing Agency.** Describe the project's most significant contributions (maximum 3) to the institutional / organizational strengthening in the Executing Agency. Compare the current situation with the situation before the project.

- → The executing agency is able to retain the technical staff hired for the project.
- The executing agency has developed an inventory of effective maintenance measures that may be implemented in future projects.
- Expanded knowledge in the procurement of consultants, contractors and equipment

#### 3.3.1.4. Rating the project's contributions to IOS

☒ Very Relevant (VR)

☒ Relevant (R)

☐ Partially Relevant (PR)

☐ Irrelevant (I)

Explain your rating





















### 3.3.2. Project Sustainability

**3.3.2.1. Scope of project sustainability.** Through consultation with the Executing Agency, define what actions, services and/or outputs should be sustained, and for how long, to ensure the sustainability of the expected project's outcomes and future impacts.

- → Retention of project engineers at the executing unit.
- Increase training of project engineers.
- Ensure funding is available for the maintenance of the upgraded network for at least three years.

**3.3.2.2. Basis for sustainability analysis.** In a 1 to 4 scale estimate the probability of the existence during the first year after project completion (and the termination of Bank financing) of the following institutional and organizational settings, arrangements or resources in the country, needed to sustain the products, actions, services, outputs, outcomes and future impacts initiated by the project and described in 3.3.2.1.

<b>Institutional / Organizational arrangements and resources</b>	<b>Probability</b>
1. Executing Agency top management's support	Low ←  → High  N/A
2. Policy, legal and regulatory framework	Low ←  → High  N/A
3. Preparedness and organizational capacity	Low ←  → High  N/A
4. Inter-organizational coordination	Low ←  → High  N/A
5. Availability of financial resources	Low ←  → High  N/A
6. Key personnel	Low ←  → High  N/A
7. Financial resources for infrastructure maintenance	Low ←  → High  N/A
8. Project beneficiaries' support	Low ←  → High  N/A
9. National government support	Low ←  → High  N/A

**3.3.2.3. Root-cause analysis of factors affecting negatively the project sustainability.** Considering the estimates described in the previous question and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 3.3.2.1. may not be sustainable, and explain why.

➔Availability of financial resources. Perhaps the Government may not have put aside the funds for the maintenance of the 64.4km of rehabilitated road. Key personnel may not have the incentive to remain in the maintenance, they may want to retire or move onto another career. The MOW may not have the capability to carry out the maintenance of its road network, continuous training may be necessary to ensure consistency of the output maintenance product.

**3.3.2.4. Root-cause analysis of factors contributing positively to the project sustainability.** Considering the previous analysis, and the factors, which may affect the project sustainability, identify concrete reasons why the future impacts, immediate outcomes, products, actions and/or services described in 3.3.2.1. may be sustainable, and explain why.

➔Executing Agency (PEU) has technical and managerial experience necessary for successful project implementation, procurement, supervision and training. To sustain the project. The equipment/hardware is available within the MOW for the adequate road maintenance; training of human resources is somewhat lacking.

There is a national interest in the outcome of the Southern Highway Upgrading project. With an improved campaign for motorists and public to respect and protect the country's assets, the highway itself should be sustainable. The high quality of the product ensures sustainability.

**3.3.2.5. Lessons learned on sustainability (adopted measures).** Based on your experience with this project, and considering the previous analysis, describe in a concise way what measures adopted in the project design and/or implementation were effective towards project sustainability, and explain how they were put into practice.

➔The idea to purchase basic pieces of equipment for road maintenance was accepted by the Bank and procured

based on the recommendations made by the Ministry of Works & Transport.

**3.3.2.6. Lessons learned on sustainability (alternative measures).** Based on your experience with this project, and considering the previous analysis, describe in a concise way what alternative measures you recommend during project design and/or implementation to improve the sustainability of future projects

→ The Funding Agency should include special conditions in their loan agreements, to ensure that the Ministry of Finance provide enough finances for the continuous maintenance of the country's road network and especially the physical asset realized by the performance of the project.

**3.3.2.7. Sustainability action plan.** Considering the previous analysis, describe the significant actions that the Borrowing Country and/or the Bank should undertake during the next year to ensure sustainability of future impacts, outcomes, products, actions and/ or services identified in 3.3.2.1.

- → The borrowing country needs to ensure that funds are allocated for the maintenance of the highway.
- The borrowing country needs to ensure that equipment procured for highway is efficiently and effectively used.
- The MOW is to have a scheduled maintenance program implemented in a timely fashion.

**3.3.2.8. Rating project sustainability.** Considering the previous analysis and the probability of implementing the Sustainability Action Plan, rate the probability for the sustainability of this project during the next three (3) years:

☒ Very Probable (VP)

☐ Probable (P)

☐ Low Probability (LP)

☐ Improbable (I)

Explain your rating

→

## 3.4. BANK PERFORMANCE

**3.4.1. Bank Performance in critical areas.** Evaluate the Bank's performance in the following areas:

- |  |   |
|--|---|
| 1. Extent to which the Bank facilitated the project design in a participatory manner with the Borrower and Executing Agency                          | Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A            |
| 2. Technical assistance and training as well as consistent follow-up provided so that the Executing Agency follow the Bank's policies and procedures | Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A |
| 3. Technical assistance and training provided to the Executing Agency to improve project management  | Low ← <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A |
| 4. Benefits of the Bank's supervision and assistance to improve project management   | Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A |
| 5. Timeliness in the Bank's response to the needs of the Executing Agency during project implementation  | Low ← <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A |
| 6. Bank flexibility to respond to emergencies during project implementation  | Low ← <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> → High <input type="checkbox"/> N/A |

**3.4.2. Lessons Learned for the organization and operation of the PEU (measures adopted).** Based on the project experience, identify the measures adopted in terms of structure, organization and processes of the Project Coordination/Executing Unit, as well as its interaction with the Bank, and the lessons learned. How were those measures put into practice?



**3.4.3. Lessons Learned for the organization and operation of the PEU (alternative measures).** Based on the project experience during its implementation, what do you suggest that the Bank do in future operations in order to support the improvement of the structure, organization and processes of the Project Coordination/Executing Unit and its interaction with the Bank in future operations?

➔ Ensure PEU engineers are well trained and equipped to carry out project implementation. This involves any training necessary to help the Bank as well as MOW successfully close the project and prepare completion reports, assessments and evaluations.

**3.4.4. Ratings of Bank Performance.** Based on 3.4.1., rate the Bank's performance in monitoring the project, taking into account the experience of the Borrower and your experience as Executing Agency during project design and implementation.

☒ Very Satisfactory (VS)

☒ Satisfactory (S)

☐ Unsatisfactory (U)

☐ Very Unsatisfactory (VI)

Explain your rating



## 3.5. FOUNDATIONS FOR THE EX-POST EVALUATION

**3.5.1. Provisions for ex-post evaluation.** Establish if this operation requires an ex-post evaluation according to the Loan Agreement. If applicable, provide the following information about the provisions taken (see agreements among the Bank, Borrower and Executing Agency in the Project Completion Workshop Aide Memoire):

Does the Loan Agreement require an ex-post evaluation for this operation?

☒ No ☒ Yes

What will be its schedule?

Start up date: DD MM YY

Submission date: DD MM YY

Who are the responsible parties for carrying out the evaluation?

☐ Bank ☐ Borrower

What is the estimate of the costs involved?

USD\$ [            ]

How the cost involved will be financed?

☐ IDB Resources

☐ Borrower Resources

☐ Other Source

If financing comes from other source, please specify:

**3.5.2. Analysis of the ex post evaluation capacity.** Review the capacity of the Executing Agency, as

well as its infrastructure and information systems to collect, review and report information on the achievement of future outcomes and impacts, and the main negative and positive factors that may affect this evaluation.



### **3.6. OTHER LESSONS LEARNED AND RECOMMENDATIONS**

In addition to the lessons learned and recommendations recorded in previous sections of this report, this section offers users the opportunity to state the lessons learned and recommendation that may be helpful in the design and/or implementation of new projects.



## Annexes 1A - IB

### Annex 1A - Source of Financing (Amounts in millions of US Dollars)

Investment Category	Original				Actual				Gap as % of Original			
	IDB	Borrower	Other Sources	Total	IDB	Borrower	Other Sources	Total	IDB	Borrower	Other Sources	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>1.</b>		0.50	1.50			2.93	0.86					
<b>2.</b>		2.00	9.70			3.70	10.00					
<b>3.</b>		1.60	0.20			0.22	0.10					
<b>4.</b>		0.50	0.40			0.06	0.48					
<b>Etc.</b>												
<b>TOTAL</b>		4.60	11.80			6.91	11.44					

Source of information:

From LMS: Columns (1) and (5)

To be completed by the author of the Executing Agency Memorandum: Columns (2) (3) (6) (7) (10) (11)



### Annex 1B - Schedule of Investments

(Amounts in millions of US Dollars)

Years	Original				Actual				Gap
	IDB (1)	Borrower (2)	Other (3)	Total (4)	IDB (5)	Borrower (6)	Other (7)	Total (8)	(8)- (4) (9)
1		1.0	2.5			0.76	1.62		
2		1.3	3.0			0.76	2.99		
3		1.3	3.4			2.25	1.90		
4		1.0	2.9			2.32	4.32		
5						0.82	0.12		
6									
7									
N									
TOTAL		4.6	11.8			6.91	10.95		

Source of information:

To be completed by the author of the Executing Agency Memorandum: Columns (2), (3), (6), (7)



**Southern Highway Project  
1081/OC-BL & 1/TA-BL**

**Exit Meeting, April 6, 2004**

**Aide Memoir**

The meeting was held with the Executing Agency, the Ministry of Public Works (MPW), in order to review the following aspects of the project; (i) the procedures followed in the design, preparation and execution of the Southern Highway; (ii) issues related to sustainability; and (iii) the provisions for ex-post evaluation. The Executing Agency Memorandum was presented on April 2, 2004.

Representatives of the MPW were Mr. Cadet Henderson, Chief Engineer, Mr. Edgar Puga, Head, Project Executing Unit, Mr. Evondale Moody, Project Engineer, Mr. Jose Encalada, Project Engineer and Mr. Jacinto Gutierrez, Project Surveyor. In addition, the Hon. Jose Coye, Minister of Public Works and Mr. Eberto May, Chief Executive Officer, joined the meeting for discussion of those aspects related to sustainability. Aspects dealing with the ex-post evaluation were discussed by telephone with Dr. Carla Barnett, Chief Executive Officer, Ministry of National Development (MND).

The following matters were raised.

**1 Observations on the project preparation process**

IDB originally insisted that the southern highway should have a gravel surface, to which MPW raised strong objections. The time taken to resolve the issue contributed to the delay in project preparation. The Executing Agency thinks that the Bank should have been more responsive to the concerns of national authorities. Now that the surface has been paved, MPW no longer has to maintain the 105 miles of gravel road. Maintenance costs are therefore less and it is no longer necessary to open new quarries to source material for maintenance of a gravel road; this is seen as a major environmental benefit.

The feeder roads component was not a part of the project as originally conceived. The later decision to provide access to surrounding villages has significantly enhanced the overall impact of the project on the region.

In the view of the Executing Agency, the concerns that were expressed during project preparation about the preferences of the Mayans were highly exaggerated. The Mayans welcomed the project and showed an active interest during execution. The strong focus on the environment during project preparation, and later during execution, has contributed to increased sensitivity to environmental aspects at the national level; it has “helped the country to be more sensitive to what we have and what we should preserve”.

**2 Execution challenges and solutions**

The implementation of the road maintenance-by-contract component was delayed by the absence of local resources; the GOB provided very limited resources for this component of the project. The Country Office initiated discussions leading to an increase of the local contribution for the southern highway (which GOB saw as the priority). The Bank then increased its contribution to the maintenance component, thereby ensuring the realization of project objectives.

In order to reduce costs, MPW started to construct the highway with reduced shoulder width and steeper side slopes, but the Country Office thought this was unjustified for safety considerations

and, after protracted and fruitless discussions, suspended disbursements for that component until the matter was resolved. MPW thought that the Bank's position on this matter was unduly inflexible, but it now concurs that factors which contribute to highway safety should not be compromised.

### **3. Sustainability**

Technology transfer took place through training sessions conducted by the supervisory consultants for PEU staff and private sector engineers. Private sector contractor capacity has also been strengthened through their involvement in the feeder roads and maintenance activities.

The creation of a separate Project Executing Unit (PEU) was seen as indispensable for the successful execution of the project. The performance of the PEU was commendable; with minor staffing adjustments, it has been able to manage capital projects financed by other donors also. The MPW plans to incorporate the PEU as a part of its permanent organization, to be responsible for all capital projects, and possibly the maintenance of the highway also. The capacity of the Executing Agency has therefore been strengthened by the experience gained in the execution of the Southern Highway project.

MPW fully understands the need to maintain the infrastructure, but will be challenged by the lack of adequate resources. In this regard, the Minister stated his commitment to strengthening the maintenance culture in the ministry and to support proposals presented by his staff towards that end. Follow up action to ensure sustainability include the following.

- (i) The training programme for maintenance personnel, now being implemented, will be completed by September 2004
- (ii) The PEU will prepare an annual maintenance plan specifically for the Southern Highway and the feeder roads, with costs, for presentation to the Ministry of Finance. This plan will be prepared by May 15, 2004.
- (iii) By May 31, 2004, the PEU will analyze the lessons learned from using private contractors, so as to identify their comparative advantage relative to force account. The MPW is committed to using the more cost effective approach based on that analysis.

### **4 Ex-Post Evaluation**

MPW routinely collects traffic data at selected points along the highway. However, it does not have experience with data collection and analysis in respect of user time and vehicle operating costs and would need support in this area. Regarding project impact, data collection and evaluation of project impact are outside MPW's area of interest and may best be done by the Ministry of National Development. For its part, the MND strongly supports the need to conduct an ex-post evaluation but likewise does not have the expertise. MND would like to participate in the ex-post evaluation to be funded and conducted by the Bank (according to the loan contract), in order to benefit from knowledge transfer and build national capacity in this area.

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/s/ Mr. Cadet Henderson  
Chief Engineer, MPW

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/s/ Leon Harris  
Principal Specialist, IDB

