Report Number : ICRR0020506

## 1. Project Data

| Project ID | Project Name | |
|---|---|---|
| P106596 | ZM-RRMP PHASE II APL | |
| **Country** | **Practice Area(Lead)** | **Additional Financing** |
| Zambia | Transport & ICT | P130543,P130543 |

| L/C/TF Number(s) | Closing Date (Original) | Total Project Cost (USD) |
|---|---|---|
| IDA-46540 | 30-Jun-2014 | 75,000,000.00 |
| **Bank Approval Date** | **Closing Date (Actual)** | |
| 16-Oct-2009 | 30-Apr-2016 | |

| | IBRD/IDA (USD) | Grants (USD) |
|---|---|---|
| Original Commitment | 75,000,000.00 | 0.00 |
| Revised Commitment | 75,000,000.00 | 0.00 |
| Actual | 71,644,913.97 | 0.00 |

| Prepared by | Reviewed by | ICR Review Coordinator | Group |
|---|---|---|---|
| Ranga Rajan Krishnamani | John R. Eriksson | Christopher David Nelson | IEGSD (Unit 4) |

## 2. Project Objectives and Components

### a. Objectives

The Project Development Objective (PDO) as stated in the Financing Agreement (Schedule 1, page 5) and in the Project Appraisal Document (PAD, page 9) was:
"To assist the Recipient in: (a) preserving road assets in target transport corridor: and (b) improving transport safety and connectivity in targeted areas."

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

No

### c. Will a split evaluation be undertaken?

No

### d. Components

This was the second phase (II) of the Road Rehabilitation and Maintenance Project (RRMP) of the government's second 10-year Road Sector Investment Program (ROADSIP II) for the 2004-2013 period. The overarching goal of the RRMP was to stimulate economic growth and contribute to poverty reduction through appropriate investment in road infrastructure, adequate policy and institutional reforms and enhanced road sector management. Due to unforeseen delays, the first phase was completed in ten years (as compared to the expected three years). The third phase was to be triggered based on successful achievement of phase II indicators. According to the information provided by the Task Team Leader (TTL), the originally envisaged Phase III was not prepared since the APL instrument no longer existed.

**Component 1. Civil works for road improvement**. The estimated cost at appraisal US$62.43 million. The actual cost at closure was US$60.00 million. Activities included: (a) Rehabilitation of about 51 kilometers (Kms) of the paved road between Lusaka and Chirundu transport corridor: (b) Construction of the Mufuchani Bridge on the Copperbelt Province: (c) Construction of two weighbridges in the Eastern and Copperbelt Provinces to curb vehicle overloading on the corridors: and. (d) building a Construction Material Testing Center (CMTC) facility for motor vehicle inspection and examination using modern technology in Lusaka.

**Component 2. Engineering and technical services.** The estimated cost at appraisal US$6.20 million. The actual cost at closure was US$5.50 million. Activities included: (a) Technical assistance to the National Road Fund Agency (NRFA), The Road Development Agency (RDA) and the Road Transport and Safety Agency (RTSA): and, (b) Supervision of the construction of road safety school park in Lusaka, works in five districts and design and supervision of the vehicle inspection center in Lusaka.

**Component 3. Institutional development and capacity building.** The estimated cost at appraisal US$1.66 million. The actual cost at closure (including the costs associated with purchasing equipment for NRFA headquarters) was US$3.50 million. Activities included: (a) Technical assistance and training for the institutional development of the Ministry of Works and Supply (MWS), Ministry of Local Government and Housing (MLGH), Ministry of Finance and National Planning (MOFNP), Ministry of Communications and Transport (MCT), National Road Fund Agency (NRFA), Road Development Agency (RDA), Road Transport and Safety Agency (RTSA) and The National Council for Construction (NCC): (b) activities aimed at raising public awareness of the NCC: (c) providing support for implementing the NCC's strategic plan: (d) Technical assistance and training for supporting the professional development of small scale contractors and consultants by NCC: (e) Technical assistance for implementing the governments Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) prevention program: (f) Equipment for NRFA headquarters: and (g) capacity building programs for the Monitoring and Evaluation (M&E) Unit under MCT.

**Component 4. Road safety**. The estimated cost at appraisal US$2.90 million. The actual cost at closure US$1.40 million. This component aimed at continuing support to the activities initiated under the Phase 1 of this program. Activities included: (a) Establishing a road safety school park in Lusaka: (b) carrying out media campaigns for raising raising road safety awareness: (c) installing road traffic signs in Lusaka, Kitwe and Ndola: (c) installing two road traffic lights in Lusaka: (d) Technical assistance for establishing the road regulation enforcement unit within the Road Transport and Safety Agency (RTSA): (f) Constructing a motor vehicle inspection center in Lusaka: and, (g) setting a road accident data base.

**Component 5. Mobility improvement**. The estimated cost at appraisal US$1.80 million. The actual cost at closure US$1.70 million. This component aimed at providing support for improving mobility on the existing community roads for the poor. Activities included: (a) carrying out Community Transport Infrastructure (CTI) rehabilitation in five districts: and, (b) Acquisition of vehicles for the Rural Accessibility Mobility Program (RAMP).

### e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

**Project cost.** The estimated cost at appraisal was US$75.00 million. The actual cost at closure US$72.10 million. The difference between the actual cost and the appraisal estimate was due to exchange rate fluctuations between the SDR and the US Dollar. The actual cost of component one activities was higher than expected at appraisal. This resulted in cancellation of some activities and funds (US$0.90 million) from the cancelled activities were used for financing some new activities (discussed below under dates).

**Project Financing.** The project was financed by an IDA credit of US$75.00 million. Amount disbursed US$72.10 million. The difference between the amount disbursed and the IDA credit was due to exchange rate fluctuations between the SDR and the US$.

**Borrower contribution**. None was planned.

**Dates**. The project underwent a Level 2 restructuring on May 30, 2014. These changes were made to the project scope: (i) Activities associated with constructing the weighbridge in the Copper belt province and Construction Material Testing Center (CMTC) facility (component 1 activities) were dropped. The former activity was dropped because the actual cost of this activity was higher than expected at appraisal and the government eventually undertook to complete this activity using its resources. The latter activity was dropped due to a combination of factors including, encroachment on the selected land and the Road Transport Safety Agency (RTSA) preferred to avoid the resettlement process and was also unable to acquire alternative piece of land. The scope of component five activities associated with Community Transport Infrastructure (CTI) was reduced from five to three districts due to cost overruns and works in the remaining two districts were implemented by the government using its resources. (ii). Funds were reallocated from cancelled activities to finance some new activities such as, a review of the 2002 National Transport Sector Policy and preparing a new integrated transport sector policy, operationalizing the accident data capturing software created under the phase 1 of the project and support to the Ministry of Transport, Works, Supply and Communications (MTWSC) for implementing the Memorandum of Understanding (MOU) on road safety. (iii). The project closing date was extended by 22 months from June 30, 2014 to April 30, 2016.

Despite a Level 2 restructuring that included changes to key associated outcome targets, IEG has chosen not to undertake a split evaluation as the changes did not make a material difference to the achievement of the project against the PDO.

The project closed 37% behind schedule on April 30, 2016.

## 3. Relevance of Objectives & Design

## a. Relevance of Objectives

Before appraisal, only about 26% of Zambia's core road network, 40,133 Kilometers (Km) - including 7,213 km of paved roads and 32,900 km of unpaved roads were in good condition. Of the core network, 85% of the paved roads was in good condition and only 13% of the unpaved network was in good condition. This implied that majority of rural population was hampered by constraints associated with accessibility and connectivity. Further, the road safety initiatives undertaken before before appraisal had not much of an impact, with the number of road accidents and fatalities on Zambia's roads rising by 69% and 42% respectively during the 2004-2007 period. Thus, the PDOs of preserving road assets in the transport corridor, improving road safety and improving connectivity was relevant in the country context. At appraisal, the PDOs were consistent with the government's Road Sector Investment Program (ROADSIP I) for the years 2004-2013 period and the government's Fifth National Development Plan for the 2006-2010 period which highlighted the need for investments in infrastructure development in general and road sector investments in particular.

At appraisal, the PDO was consistent with the Country Assistance Strategy (CAS) for the 2008-2011 period. The CAS underscored the need for developing infrastructure through improving the condition of roads and bridges, to access tourist destinations and agricultural markets. The CAS also highlighted the need for: (a) reviewing national transport policy and better aligning sector priorities with the national poverty reduction strategy: (b) reinstating and reconstructing bridges in selected provinces to bring back isolated communities into the mainstream economy: and, (c) providing access to currently inaccessible areas in selected national parks. The PDOs remain relevant to the Country Partnership Strategy (CPS) for the 2013-2016 period, which aimed at addressing critical infrastructure investment gaps for reducing poverty and reducing vulnerability of the poor.

### Rating

Substantial

## b. Relevance of Design

The statement of the PDO is clear and the causal links between project activities and their outputs were logical. Component one activities associated with rehabilitating roads and constructing bridges and weighbridges, in conjunction with component two and three activities aimed at capacity building to the state agencies can be expected to preserve road assets in the transport corridor. Component four activities aimed at road safety features can be expected to contribute to improving transport safety and component five activities associated with Community Transport Infrastructure (CTI) can be expected to contribute to improving mobility of the poor. There were however several shortcomings in design.

The causal links between the outputs and outcomes were unclear. The PDO purported to preserve road assets in the entire transport corridor when the roads rehabilitated under the project represented only 0.06% (51 km) of the classified road network (77,700 km) on the corridor.

The design underestimated the risks associated with the institutional capacity of the implementing agencies and governance risks in the country context. Although weak institutional capacity was identified by earlier projects financed by the Bank (The Road Sector Investment Program (ROADSIP) and by the 1 phase of

the Road Rehabilitation and Maintenance Project (RRMP I), as a major challenge in the transport sector, this project allocated only 2% (US$1.40 million) of the project cost to support activities associated with strengthening capacity of the agencies. The weak institutional capacity of the implementing agencies, contributed to delays especially in the first half of the project period. The project appraisal took place when an audit (2009-2010) of the road sector by the Zambian Office of the Auditor General was ongoing (ICR, page 2). The audit eventually revealed serious governance weaknesses including misappropriation of resources and suboptimal quality of work on government-funded projects. As part of the audit process, the board of directors and senior management staff of three road agencies - the Road Development Authority (RDA), the National Road Fund Agency (NRFA) the Road Transport and Safety Agency (RTSA) - including those assigned to implementing World Bank Funded activities, were dismissed. These vacant positions were not filled for nearly four years, resulting in weak sector governance and inadequate institutional capacity within the road agencies.
It is not clear if the lending instrument used - Adaptable Program Loan (APL) - was appropriate for a program with a large civil works component. The Road Rehabilitation and Management Project (RRMP) was originally designed as a ten year APL program of the government's second 10-year Road Sector Investment Program (ROADSIP II) for the 2004-2013 to be implemented in three consecutive phases, as long as required triggers were satisfied. Given that the process associated with deepening sector reforms requires time, it is not clear if this instrument was practical for phase II activities which focused mainly on infrastructure investment activities. Eventually, the originally envisaged phase III was not prepared since the APL instrument was no longer valid. The project design did not address issues pertaining to ensuring the sustainability of road maintenance as there were no activities aimed at strengthening road sector financing or addressing road maintenance.

**Rating**
Modest

## 4. Achievement of Objectives (Efficacy)

### Objective 1
**Objective**

To preserve road assets in target transport corridor.

**Rationale**
**Outputs.**

- 51 km of roads of the Lusaka-Chirundu road were rehabilitated as targeted on June 30, 2015. A road survey conducted in 2011 reported that 84% of this road was in good/ fair condition and after rehabilitation, the road condition improved to about 95% (ICR, page 29).
- The size of the total classified network increased from 67,000 at the baseline to 67,671 km at project closure. This slightly exceeded the target of 67,631 (ICR, Datasheet, Indicator No 2).

- The Mufuchani Bridge in the Copperbelt Province was completed on January 31, 2016 as targeted (ICR, page 29). 371,570 vehicles crossed the bridge annually. This exceeded the original target of 60,000 vehicles (ICR, Datasheet, Intermediate Indicator No 4).
- Of the two weighbridges aimed at reducing vehicle overloading on the corridor, the activity associated with the construction of the weighbridge in the Copperbelt Province was dropped. The weighbridge in the Eastern Province was not complete at closure due to implementation delays. This activity was scheduled to be completed in November 2016 through government funding.
- The Construction Material Testing Center was completed through government funding.
- Activities associated with supervision of the Mufuchani Bridge, the Lusaka-Chirundu Road, the Community Transport Infrastructure (CTI) and civil works in five targeted districts were completed as targeted.
- 42 personnel from the implementing agencies were trained (there were no targets for this indicator) . The training was provided on the following topics: (i) road safety design: (ii) supply chain management and procurement: (iii) certified international management: (iv) project management, management of of donor-funded projects and development projects: (v) pavement construction and maintenance: (vi) management competences for regulatory managers: (vii) performance indicators in M&E: (viii) advanced works and selection of consultants: (ix) public procurement management program: (x) information technology in M&E and managing information assets: (xi) cyber security and intrusion awareness: and, (xii) advanced management skills, professional executive financial solutions and training for senior road executives).
- Two workshops were held for project component managers, World Bank focal point officers and stakeholders (ICR, page 30).The publicity and advocacy program for the National Council for Construction (NCC) was completed as targeted.
- A review of the NCC Act was completed. However, the final report was yet not ready at project closure (ICR, page 30). The support for NCC Capacity building for professional development of small scale contractors and consultants was completed as targeted (ICR, page 31).The review of the National Transport Sector Policy of 2002 was completed as per the revised target. (ICR, page 31).
- There was 90% compliance with the Road Sector Governance Plan as per the target (ICR, Datasheet Intermediate Indicator No 6).
- Activities aimed at providing support for implementing the government's HIV/AIDS prevention program were completed as targeted (ICR, page 31). The number of people who were reached by the HIV/AIDS campaigns at project closure was 9,822 as compared to the target of 5,000 (ICR, Datasheet, Intermediate Indicator No 3).

**Outcomes.**

- The indicators were mainly output-oriented.
- Given that there is no evidence that the activities contributed to reducing vehicle overloading on the corridor, achievement towards realizing the objective of preserving road assets in the target transport corridor is rated as Modest.

**Rating**
Modest

## Objective 2

**Objective**

To improve road safety.

**Rationale**
**Outputs.**

- These activities were not completed at project closure: Construction of the Accident Information System (AIS); The construction of a road safety park in Lusaka; The training on road safety for children at the Road Safety Park: The rollout of the Accident Information System in Lusaka: Delivery of traffic law enforcement equipment to the Zambia Police Services: and the activity associated with privatization of the vehicle inspection process as a pilot activity (ICR, pages 16 and 31).
- The activity associated with constructing the Vehicle Inspection Center (VCC) was completed by the government using their own resources.
- These activities were completed under the project as targeted: Media campaigns designed to raise road safety awareness among road users: Construction of road traffic lights in Lusaka, Kitwe and Ndola as targeted: Road regulation enforcement unit was established within the Road Transport Safety Agency (RTSA): The Road Safety Memorandum of Understanding (MOU) was completed.(ICR, page 31).

**Outcomes.**

- Total annual number of road fatalities in Lusaka and Copper belt Provinces declined by 882 at project closure. This was short of the target of a decline of 900.
- Given that activities associated with road safety measures were not completed, achievement towards realizing the objective of improving road safety was rated as Modest.

**Rating**
Modest

## Objective 3

**Objective**

To improve connectivity in target areas.

**Rationale**
**Outputs**.

- 92.5 km of all-season roads were constructed. This exceeded the target of 74 km (ICR, page 32).
- 22 small bridges were rehabilitated in the three targeted districts. This exceeded the target of six bridges (ICR, Datasheet, Intermediate Indicator No 1).
- 92.5 km of roads benefited from spot improvements in the targeted three districts.This exceeded the revised target of 72 km. (ICR, Datasheet, Intermediate Indicator No 2).
- The vehicles for the Rural Accessibility Mobility Program were acquired as targeted (ICR, page 32).
- 23,993 people in the three targeted districts had access to an all-season road at project closure. This exceeded the original and revised targets of 7,080 and 4,248 people respectively (ICR, Datasheet, Indicator No 4).

**Outcomes.**

- 83% of the rural population had access to an all-season road in the three targeted districts as compared to the original target of 60%.
- Prior to the construction of the new bridge, there was no motorized traffic from the Mufuchani Farming Block to the center of Kitwe, the second largest city in Zambia. With the construction of the new bridge, the local communities were able to connect between the Kitwe main town and the Mufuchani Farming Block (ICR, page 17). Given this, achievement towards realizing the objective of improving connectivity in target areas is rated as Substantial.

**Rating**
Substantial

## 5. Efficiency

**Economic Analysis**. A Cost-Benefit analysis was conducted for the two infrastructure investments (rehabilitation of two road links and construction of the Mufuchani Bridge), using the Highway Development and Management Model 4 (HDM4). These components accounted for about 84% and 86% of the project cost at appraisal and at closure. The quantitative benefits of road links were assumed to come from increased agricultural production, savings from diverted traffic, reduction in transaction cost for farmers and reduction of fatal accidents. The qualitative benefits that were identified but not factored in the economic analysis included reduced environmental health related costs and more reliable access to markets and inputs. The costs included design and construction costs and costs associated with periodic and routine road maintenance. The ex- post Economic Internal Rates of Return (EIRRs) for the two road links are 36% to 20%

as compared to the ex-ante EIRRs of 20% and 30% respectively. The ex post EIRR for the first link is higher because actual traffic was 13% higher than anticipated (13% increase) and the actual investment cost was 15% lower than estimated at appraisal. The ex post EIRR for the second link is lower because actual traffic was marginally lower (1.3%) lower than estimated at appraisal. The potential benefits associated with constructing the Mufuchani Bridge were assumed to come from savings in Vehicle Operating Costs (VOCs). The ex post EIRR for this activity is 15% as compared to the ex-ante EIRR of 14%.

**Administrative and Operational Issues**. There were cost overruns with costs of some activities being higher than expected at appraisal. This resulted in cancellation of one activity (construction of a weighbridge in Copperbelt Province) and reduction in scope of Community Transport Infrastructure (CTI) activities from five to three districts. These activities were eventually undertaken by the government using their own resources and funds from cancelled activities were utilized for funding some incomplete Phase I activities and one new activity. There were delays during implementation, with preparatory activities deferred by three years due among other things, to the weak implementation capacity of the road agencies and deficiencies in design works. These factors delayed commencement of civil works activities. These delays contributed to a 37% time overrun with the project closing about 22 months behind schedule. Disbursements in initial years of the project were low due to delays in the commencement of the main contracts and at restructuring, less than a third (30%) of the credit was disbursed. This was rectified in the latter years of the project, with the remaining 70% disbursed during the last two and half years of implementation (2014-2016).

In view of the relatively high returns to the major infrastructure investments, efficiency is rated Substantial, notwithstanding the administrative and operational issues.

### Efficiency Rating

Substantial

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

| | Rate Available? | Point value (%) | *Coverage/Scope (%) |
|---|---|---|---|
| Appraisal | | 0 | 0<br>☐Not Applicable |
| ICR Estimate | | 0 | 0<br>☐Not Applicable |

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

## 6. Outcome

The relevance of the PDO for the Government and for the Bank strategy for Zambia are rated Substantial. However, the relevance of design is rated Modest. While the causal links between component activities and outputs were clear, the links between outputs and outcomes were not clear. Moreover, risks were underestimated. Efficacy of two sub-objectives - to preserve road assets in the target transport corridors and to improve transport safety - is rated Modest and efficacy of the third sub- objective, to improve connectivity in target areas, is rated Substantial. Owing to the relatively high returns to major infrastructure investments, efficiency is rated Substantial, notwithstanding administrative and operational issues. Overall outcome is therefore rated Moderately Unsatisfactory.

### a. Outcome Rating
Moderately Unsatisfactory

## 7. Rationale for Risk to Development Outcome Rating

**Government Commitment and Institutional Risk.** Although Zambia has a road fund agency which gets its revenue from tolling revenue, fuel levy and other road user charges, ongoing benefits from this project may be undermined due to the lack of sustainable sources of funding for road maintenance activities. It is also not clear that the Government will prioritize maintenance activities over the extension of its road network, given that the government does not yet have a long-term financing strategy, which clearly specifies the resources for generating road fund revenues and a priority for allocation of its spending. Also given the relatively weak capacity of the road agencies and the absence of a revised national transport policy that explicitly enforces implementing maintenance of the public roads, the risk to development outcome is rated as Substantial.

### a. Risk to Development Outcome Rating
Substantial

## 8. Assessment of Bank Performance

### a. Quality-at-Entry
Measures were adopted during project preparation to commence the preparatory work for two major civil work activities to avoid procurement delays. Implementation arrangements of the Phase 1 project were retained for this project (discussed in Section 9b). Following up on the audit findings for the road sector (discussed in section 3b), the project developed an action plan to address the audit findings and adopted the Road Sector Governance Improvement Plan to address weak governance in the road sector. Adequate measures were taken at appraisal for compliance with safeguards and fiduciary compliance (discussed in section 11). There were however significant drawbacks at Quality-at-Entry.

- As discussed in Section 3b, the design underestimated the risk associated with the institutional capacity of the implementing agencies, despite the experience associated with the first phase of the program. The project underestimated the governance risk, given that an audit of the road sector by the Zambian office was ongoing while this project was under preparation. It is not clear if the lending instrument was appropriate for a program with a large civil works component. The design did not include any activities pertaining to ensuring sustainability of the road network through providing mechanisms for financing road maintenance on the rehabilitated roads.

- Costs were underestimated, with actual costs of some activities proved to be higher than expected at appraisal. This necessitated dropping of some activities from this project.
- Key civil works were not ready at effectiveness, due to deficient preparation for tendering, engineering designs and bidding documents and this contributed to the late startup of these activities.
- There were shortcomings in M&E design (discussed in section 10).

**Quality-at-Entry Rating**
Moderately Unsatisfactory

**b. Quality of supervision**

Supervision missions were on average twice a year, with 13 supervision missions spread over six and half years. Given the delays associated with procurement in the initial years of the project, the supervision team appointed a procurement technical assistant to follow up on the implementation for high-value contracts and this expedited procurement in the latter years of the project (discussed in Section 11). The supervision team proactively identified issues during implementation (Borrower's ICR, page 45) and responded to unforeseen circumstances (such as arising from delays due to implementation capacity constraints) through project restructuring, reallocation of project funds and replacing slow-moving operations with strategically important and readily implementable activities (such as preparing a new integrated transport sector policy, operationalizing the accident data capturing software created under the first phase of the project and supporting the Ministry of Transport, Works, Supply and Communications (MTWSC) for implementing a Memorandum Of Understanding (MOU) on road safety).

- The supervision team did not take steps either to improve the results monitoring framework or to adjust the target values in view of the changed circumstances.
- Frequent changes in leadership - with three changes in task team leaders - contributed to delays in implementation. Given the prolonged capacity constraints of the implementing agencies, more frequent site visits and technical discussions with the implementing agencies by the supervision team could have helped in providing more rapid response to detecting and responding to technical issues and issues associated with the contractors' nonperformance.
- On several occasions, the supervision team did not respond to requests in a timely fashion for approvals (Granting of no objections) (Borrower's ICR, page 45).

**Quality of Supervision Rating**
Moderately Unsatisfactory

**Overall Bank Performance Rating**
Moderately Unsatisfactory

## 9. Assessment of Borrower Performance

## a. Government Performance

The Government provided necessary support and commitment to the project's long-term objectives and this was evidenced at appraisal by its compliance with the required triggers for implementing the Phase II of the Road Rehabilitation and Maintenance Program (RRMP). Given the cost overruns associated with some activities, the government undertook the responsibility of completing these activities and coordinated seven Implementing agencies in a challenging environment such as, the road sector audit of 2009-2010, general elections of 2011 and ministerial restructurings twice (In 2011, the Ministry of Communications and Transport (MCT) and the Ministry Of  Works and Supply (MWS) were merged to form one Ministry - the Ministry of Transport, Works, Supply and Communications (MTWSC) and in September 2015, the MTWSC was reorganized and divided into two separate ministries- with MCT responsible for transport aspects of the sector and MWS responsible for oversight of the roads and construction industry).

- Prolonged delays in appointment of a board of directors at road agencies adversely impacted on the road agencies and this in turn undermined the implementation of the Road Sector Governance Plan. High staff turnover at the road agencies and delays associated with filling in vacancies contributed to implementation delays during the first half of the project life.
- There were delays in implementing the sector-wide M&E system, activities associated with road safety component and the high-level review of the National Transport Sector Policy of 2002.

### Government Performance Rating

Moderately Unsatisfactory

## b. Implementing Agency Performance

As in the first phase of the Road Rehabilitation and Maintenance (RRMP) Project, the following ministries and agencies were responsible for implementing the project activities: The Ministry of Communications and Transport (MCT): The Ministry of Works and Supply (MWS): The Ministry of Local Government and Housing (MLGH): The Ministry of Finance and National Planning (MOFNP): The Road Development Agency (RDA): The Road Transport and Safety Agency (RTSA): and, The National Council for Reconstruction (NCR). The National Road Funds Agency (NRSA) was in overall charge of coordinating the project activities. There were significant shortcomings.

- The implementing agencies did not have the required staff and the absence of staff dedicated to this project contributed to delays and this in conjunction with weak capacity of the implementing agencies contributed to non-attainment of crucial project activities (such as construction of weighbridges for preservation of road assets and transport safety).
- The requirement that the Attorney General approve all contracts contributed to the ongoing delays in the procurement process.

### Implementing Agency Performance Rating

Moderately Unsatisfactory

### Overall Borrower Performance Rating

Moderately Unsatisfactory

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

### a. M&E Design

Of the six PDO indicators, two indicators - share of rural population with access to an all season road and the total number of fatalities in Lusaka and Copperbelt provinces, were appropriate for monitoring the performance of project-related activities at the outcome level.
The indicator pertaining to roads in good and fair conditions as a share of total classified roads was unrealistic given that the roads rehabilitated under the project constituted only 0.06% of the classified road network. The indicators pertaining to share of rural population with access to an all season road in the three targeted districts and number of rural people with access to an all-season road in the targeted districts were duplicative as the former was expressed in percentage, while the latter was expressed in number of beneficiaries.
The majority of the key PDO indicators were output rather than outcome-oriented. The methodology followed for setting target values was not clear and there were no key outcome indicators aimed at strengthening the institutional dimension of the project.

### b. M&E Implementation

The Ministry of Communications and Transport (MCT) was responsible for M&E activities for the transport sector and the National Road Fund Agency (NRFA) was responsible for compiling and analyzing the data for all project activities. Although the sector-wide centralized M&E system - the National Transport Sector Data Management System was installed by the Ministry of Transport and Communication (MTC) as envisaged as a Phase I activity and later deferred to Phase II, the system was not operational at project closing, due to lack of actual data. As a result, project activities were monitored by the NRFA and the Road Development Agency (RDA).
The indicators were not revised when the project was restructured.

### c. M&E Utilization

The indicators were used for monitoring the progress of the project activities/interventions during implementation.

### M&E Quality Rating

Modest

## 11. Other Issues

## a. Safeguards

The project was classified as "Category B" under OP/BP 4.01) Environmental Assessment and one safeguard policy was triggered at appraisal: Involuntary Resettlement (OP/BP 4.12).
**Environmental and Social Safeguards.** The PAD (page 92) reports that Environmental Impact Assessment (EIA) was conducted at appraisal and an Environmental Project Brief (EPB) for the Lusaka-Chirndu road component of the project was prepared at appraisal. This brief identified the potential negative impacts and proposed mitigation measures. The EPB was publicly disclosed as required at appraisal. A full EIA was conducted for the Mufuchani Bridge component of the project. Environmental Management Plans (EMPs) were prepared for components and publicly disclosed as required at appraisal (PAD, pages 92 and 93). The ICR (page 11) reports that there was compliance with environmental and social safeguards during implementation and there were no major environmental or social safeguard issues. The ICR (page 11) notes that as part of the resettlement activities for the Mufuchani Bridge, 57 new houses, two churches and a 1.5 km access road were constructed in Kitwe in the Copperbelt Province and to ensure relocation of the Project Affected People (PAP), minor works including the connection of water, sewerage and electricity were provided.

## b. Fiduciary Compliance

**Financial Management**. An assessment was made of the financial management capacity of the implementing agency (The National Road Fund Agency (NRFA). The Agency had successfully managed two prior IDA projects (The Road Sector Investment Program and the Phase 1 of the Road Rehabilitation and Maintenance Project (RRMP 1). The financial risk was rated as Modest at appraisal (PAD, pages 61). The ICR (page 12) reports that the financial performance of the agency was deemed to be satisfactory during implementation. External project audits were carried out on an annual basis and interim and audit reports were submitted in a timely fashion. However, at project closing, there were two outstanding audit reports for submission (the audit for the HIV/AIDS and the audit for the Road Development Agency (RDA).
**Procurement Management.** An assessment was made at appraisal to assess the procurement capacities of the implementing agencies, including the Road Development Agency (RDA), the National Road Fund Agency (NRFA), the Ministry of Local Government and Housing (MLGH), the National Council for Construction (NCC), the Ministry of Communications and Transport (MCT) and Road Transport and Safety Agency (RTSA). The assessment concluded that the implementing agencies had adequate capacity to implement procurement as they had already implemented the Phase 1 of this project (PAD, page 74). The ICR (page 12) however notes that major delays were experienced during implementation due to the lack of preparedness by the Road Development Agency (RDA) and inadequate procurement capacity of the implementing agencies and these were exacerbated by the audit process of 2009-2010 for the road sector and implementation of its recommendations. Further, the requirements that almost all procurements be managed by the Zambia Public Procurement Authority and obtain a final approval from the Attorney General for civil works contracts delayed the award of contracts for many activities. However, performance improved and there was compliance with procurement issues after project restructuring, when a dedicated project manager was deployed to oversee project activities and the Bank appointed a procurement technical assistant to closely follow up on the implementation of high-value contracts.

### c. Unintended impacts (Positive or Negative)

---

### d. Other

---

## 12. Ratings

| Ratings | ICR | IEG | Reason for Disagreements/Comment |
|---|---|---|---|
| Outcome | Moderately Satisfactory | Moderately Unsatisfactory | Relevance of objective was rated as Substantial and that of design was rated as Modest. Efficacy of the two objectives to preserve road assets in target transport corridors and to improve road safety was rated as Modest and efficacy of the objective of improving connectivity in target areas was rated as Substantial. Efficiency was rated as Substantial. |
| Risk to Development Outcome | Substantial | Substantial | --- |
| Bank Performance | Moderately Unsatisfactory | Moderately Unsatisfactory | --- |
| Borrower Performance | Moderately Unsatisfactory | Moderately Unsatisfactory | --- |
| Quality of ICR | | Substantial | --- |

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

## 13. Lessons

The ICR (pages 25 to 27) draws the following main lessons from implementing this project.
**(1) Project design needs to be more realistic in its strategic objectives, in particular institutional reform**

**and capacities and consistent with allocated time and project capacity and available capacity.** The experience of this project showed that newly established institutions or agencies require more time than unanticipated for transition. Further, even though the project aimed at institutional strengthening of the implementing agencies, the financial support provided by the project accounted for only 2% of the total project cost, while infrastructure investments accounted for the balance. The low allocation for the institutional dimension did not provide the necessary support for institutional reforms.
**(2) Successive, long-term Adaptable Program Loans (APLs) may not always be a practical instrument to deliver a program with a large civil works component.** In the case of this project, the Road Sector Rehabilitation and Maintenance Project (RRMP) was designed to be a ten year APL program to be implemented in three consecutive phases, as long as the required triggers were satisfied. However, the implementation of phase I of this project took 10 years (as compared to the original estimate of three years) and phase II was implemented in six and half years as compared to the original estimate of four years. Phase III was dropped during the implementation of Phase II. While the long term nature of the APL could be an effective tool for deepening sector reforms, the experience of this project showed that as it took a long time to implement, it may not have been a practical instrument for RRMP II which focused on infrastructure investment activities.
**(3) Successful implementation of a road safety agency needs full political commitment**. In recognition of the global concern and growing demand for improved road safety in the road sector, sound road safety policies and road safety action plans tailored to the needs of the country are required and this likely to require coordination between various ministries (such as, transport, planning, health and education), police and implementation agencies. In the case of this project, although road safety agency was one of the PDOs, it was framed as a small part of the project without providing significant reform measures to fully implement this important objective.
(**4) A robust but clear M&E framework that is well aligned with the PDO helps in monitoring and measuring the outcomes/outputs of the project activities.** Although developing a robust M&E framework can be a challenging task for transport projects, given that the project benefits are diverse and realized in different time frames, a robust M&E can help in designing the project to respond to its development objectives.

## 14. Assessment Recommended?

No

## 15. Comments on Quality of ICR

The ICR is reasonably well-written and concise. It is candid in discussing the issues associated with design and Bank performance at Quality-at-Entry (particularly in view of the ongoing audit process) and the shortfalls with M&E design. It provides adequate information for assessing the project.
However, it is not clear why the relevance of objective is rated as Modest (ICR, page 13), while at different portions in the text the ICR highlights the importance of the objective both for the government and Bank strategy for Zambia. It is also not clear why the ICR chose to do a split rating, given that there was no material change to the project after restructuring. It is not clear if the assessment conducted at appraisal regarding the implementing agency's capacity to address procurement issues was realistic given the

considerable procurement delays encountered in the course of implementing this project.

**a. Quality of ICR Rating**

Substantial