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Report No.: 22481

PERFORMANCE AUDIT REPORT

ZAMBIA

TRANSPORT ENGINEERING AND TECHNICAL ASSISTANCE PROJECT
(CREDIT 2515-ZA)

June 27, 2001

Sector and Thematic Evaluation Group
Operations Evaluation Department

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Exchange Rate

Year	Kwacha per U.S. Dollar (market rate, period average)
1995	864
1996	1208
1997	1314
1998	1862
1999	2388
2000	3111

Source: World Bank.

Abbreviations

DISS	Department of Infrastructure Support Services
FRS	Feeder Roads Section
HMS	Highway Management System
MCT	Ministry of Transport and Communications
MLGH	Ministry of Local Government and Housing
MOFED	Ministry of Finance and Economic Development
MWS	Ministry of Works and Supply
NRB	National Roads Board
PSRP	Public Sector Reform Program
RD	Roads Department
RDTS	Roads Department Training School
RF	Road Fund
RMI	Road Maintenance Initiative
ROADSIP	Road Sector Investment Program
RRP	Roads Rehabilitation Project
TETAP	Transport Engineering and Technical Assistance Program
US¢	United States Cent

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The World Bank
Washington, D.C. 20433
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Office of the Director-General
Operations Evaluation

June 27, 2001

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Performance Audit Report on Zambia
Transport Engineering and Technical Assistance Project (C2515-ZA)

Attached is the Performance Audit Report (PAR) prepared by the Operations Evaluation Department on the above project, which was approved in FY93 and closed in FY98, one year after the original closing date. The original credit amount was for US$8.5 million and final disbursement was US$7.9 million.

The main objectives of the project were to support the government's effort in designing and implementing transport sector policy reforms; strengthening road sector institutions' capacity to plan and coordinate public expenditures for roads and to monitor sector performance; and carrying out the preparatory engineering work for the first year of a (proposed) five-year Roads Rehabilitation Project.

To achieve its objectives, the credit financed policy support, institutional development, and project preparation. The policy support component was to assist in reclassifying the road network, working out the detailed implications of establishing an autonomous Highway Authority, proposing arrangements for road financing (including introduction of a road tariff), and preparing a draft Highway Authority Bill for consideration by Parliament. The institutional development component was to support the implementation of a Highway Management System; to conduct an equipment management and maintenance study; to strengthen the domestic construction and consulting industry; to establish a feeder roads section within the Ministry of Local Government and Housing; and to train the implementing agencies in maintaining the project accounts and carrying out annual auditing. The project preparation component was aimed at performing detailed engineering studies for the first year of the Roads Rehabilitation Project.

The objectives of the project were relevant to IDA's agenda for helping Zambia create an enabling environment for enhanced growth and productivity. The components were adequately selected to achieve the objectives. Institutional reforms were required as the country did not have the technical or financial capacity to rehabilitate and maintain a well-functioning road network.

The project achieved its main objectives. The preparatory engineering work was satisfactorily carried out. Feasibility studies, detailed engineering design, and bidding documents were undertaken for the Great North Road. In terms of institutional and policy reform, the project supported far-reaching reforms to improve the management and financing of the road network in

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Zambia. In 1993, the Government of Zambia introduced a fuel levy and established a Road Fund to provide dedicated funding for road maintenance, and in 1994 it established a Road Board with a private sector orientation to manage the Road Fund on commercial principles. A "National Transport Policy" framework was drafted in 1995 and a Letter of Road Sector Policy was prepared and signed in March 1997.

Progress was made toward achieving the objective to strengthen the government's capacity to improve the planning and management of the road sector. A program of road reclassification, numbering, and mapping was undertaken. A Highway Management System (HMS) to assist the Roads Department in prioritizing maintenance and rehabilitation for the main road network is under implementation, but has been delayed due to a poor working relationship between the Roads Department and the consultant retained to carry out the implementation of the HMS. Efforts are underway to make the HMS operational.

The condition of the road network has improved. The proportion of roads in good condition increased from 20% in 1995 to 35% in 1999, while roads in poor condition correspondingly declined from 51% in 1995 to 29% in 1999.

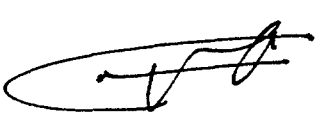
The use of private sector for road works has substantially increased. In the past, 94% of road work was done by force account, but now 90% of the work is done by the private sector under contract with the government. The number of local contractors increased from four in 1994 to about 450 in 1999, and local consultants increased from 6 to 20 over the same period.

OED rates the outcome of the project "satisfactory," institutional development impact "substantial," sustainability "likely," and Bank and borrower performance "satisfactory." These ratings are the same as the ICR ratings.

Experience with this project confirms a number of OED lessons:

- A government capable of passing far-reaching institutional and policy reforms without using the political process is *also* capable of reversing those reforms without much debate and deliberation. In Zambia, the Road Fund and the Roads Board were established using the government's discretionary power without involving the legislative branch of the government. This effectively leaves the Road Fund and the Road Board vulnerable to dissolution by government or ministerial order.
- The efficacy of organizational strengthening is limited by the institutional organizationof the sector. A fragmented institutional arrangement decreases the returns from institutional development efforts.
- While a Road Fund can provide sustained and stable resources for road maintenance, its sustainability depends on: (i) limiting the government's ability to use the fund for other purposes; (ii) having broad-based revenue sources; (iii) direct deposit of fuel levies to the Road Fund account to avoid delays in transfer; and (iv) active participation of key players and stakeholders.
- Private sector participation in road maintenance can provide substantial benefits. However, these benefits can be sustained only if the road agencies can develop the capacity to manage contracts.

Attachment



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This report was prepared by Binyam Reja (Task Manager) who audited the project in December 2000 and reviewed by Hernan Levy and John Heath. William B. Hurlbut edited the report. Romayne Pereira provided administrative support.

Principal Ratings

	ICR	*ES*[*]	*PAR*
Outcome	Satisfactory	Satisfactory	Satisfactory
Sustainability	Likely	Likely	Likely
Institutional Development	Substantial	Substantial	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

Key Staff Responsible

	Task Manager	*Division Chief*	*Country Director*
Appraisal	I. Jensen	P. Pomerantz	NA
Completion	S. Brushett	Y. Crookes	P. Pomerantz

[*] Evaluation Summary (ES) -- OED review of ICR.

Preface

This is a Performance Audit Report (PAR) for the Zambia Transport Engineering and Technical Assistance Project (C2515-ZA).

The PAR was prepared by the Operations Evaluation Department (OED) based upon a review of the President's Report, Staff Appraisal Report (SAR), Implementation Completion Report (ICR), transcripts of Board proceedings, project correspondence files, Bank documents on other transport projects, and other Bank and non-Bank materials. In December 2000, an OED mission visited Zambia to discuss the project with relevant government officials, representatives from the private sector, beneficiaries, and professional and trade organizations. OED also discussed the projects with Bank staff in charge of the project at headquarters. The kind cooperation and invaluable assistance from all those who were consulted are gratefully acknowledged.

The audit agrees with the ratings of the implementation completion report. The PAR adds value to the ICR by focusing on Zambia's experience with institutional and policy reform in the road sector.

Following standard procedures, copies of the draft PAR was sent to the relevant government officials and agencies concerned for their review and comments. No comments were received.

1. Introduction and Background

The Country Context

1.1 Zambia is a landlocked country in Central Africa, surrounded by eight neighboring countries. It has an area of 750,000 square kilometers and a population of about 9.9 million, growing at 2.5 percent annually, and 44 percent of the population is classified as urban.[1] Zambia's economy is heavily dependent on the mining of copper, cobalt, and zinc. Copper and other metal exports account for about 75 percent of the country's export earnings.[2] Until the mid-1970s, Zambia was one of the most prosperous countries in Sub-Saharan Africa, but the situation drastically changed when the world copper prices crashed in the 1970s. By 1991, the country was heavily indebted and degenerated to becoming one of the poorest countries in Africa. GNP per capita in the early 1970s was US$650 (in constant 1995 US$), after the crash it has steadily declined to US$430 in 1991. GNP per capita for 2000 is estimated at US$320, which is below the Sub-Saharan Africa average of US$490.

1.2 After several unsuccessful economic reform efforts in the 1970s and 1980s, the Zambian government in 1992 initiated a series of market-oriented economic reforms, aimed at the removal of subsidies, liberalization and stabilization of the economy, and privatization of state-owned enterprises.[3] A privatization act passed in July 1992 resulted in the establishment of the Zambian Privatization Agency to convert state-owned enterprises to private ownership. Consumer and producer subsidies were substantially reduced and civil service was trimmed. In 1995, two large loss-making parastatals—Zambian Airways and the United Bus Company of Zambia were liquidated. Management of the air transport infrastructure was transferred to the largely independent parastatal National Airports Corporation Limited. Concessioning of Zambia Railways to a private operator is under preparation.

1.3 Despite substantial achievements in liberalization and establishing a market-based economy, sustained growth has been elusive. Delays in privatization of copper mines, falling copper revenues, and the heavy debt burden have limited the effectiveness of the government's reform program. And average per capita income fell during the 1990s. Zambia's Poverty Reduction Strategy Paper estimates a 73 percent incidence of poverty in 1998. While poverty levels are deeper and more severe in rural areas (over 80 percent of the rural population is poor), poverty in urban areas is increasing more rapidly, due to public sector and mining layoffs. Most of the urban poor live in squatter settlements with few public services, and live off informal trading. Rural poverty, on the other hand, is closely associated with geographic isolation—the further a community is from the rail and mining corridor, the more likely it is to be poor and lacking in basic services.[4]

The Road Sector Context

1.4 Zambia has 37,000 km of classified roads, 21,000 km of which is the responsibility of the Roads Department in the Ministry of Works and Supply (MOWS). The remaining 16,000 km are

1. World Bank. 2000. Zambia at a Glance.

2. World Bank. 2000. Zambia Country Brief.

3. Bonnick, Gladstone G. 1997. *Zambia Country Assistance Review – Turning an Economy Around.* A World Bank Operations Evaluation Study. World Bank. Washington D.C.

4. World Bank. 2000. Zambia: Designing Poverty Reduction Strategy Governance Structures. Poverty Reduction Strategy Paper.

under the jurisdiction of the District Councils in the Ministry of Local Government and Housing (MOLGH) and the Department of National Parks and Wildlife in the Ministry of Tourism. In addition, there are about 30,671 km of roads designated as feeder, national park, and estate roads.

1.5 The Roads and Road Traffic Act (CAP 766) of 1959 (with subsequent amendments) is the principal act relating to roads and motor traffic administration. Currently, three ministries are responsible for various segments and functions of the road sector. The Ministry of Communications and Transport (MOCT) is responsible for the overall transport policy in the country. The MWS, through the Roads Department, is responsible for the construction and maintenance of the primary core network consisting of trunk, main, and district roads. District Councils under the MLGH are responsible for the remainder of urban, rural, and feeder roads.

The Bank's Role

1.6 The Bank's assistance to Zambia has been marked by frequent interruptions. Disbursements were suspended in 1983, 1987 (for nearly three years), and in 1991 because of accumulation of arrears. Zambia has gone from being a borrower of the International Bank for Reconstruction and Development (IBRD) to being a blend country (borrowing from both IBRD and International Development Association) to being an IDA-only borrower.[5] Zambia has been an IDA country since 1984.

1.7 The Bank has been involved in Zambia's transport sector since 1953 with the approval of the first railways project to develop, improve, and preserve Zambia's transport infrastructure. Since then, the Bank has financed four more railway projects totaling US$110.5 million. The first and second railways projects concentrated on provision of workshop equipment, track improvements, and rolling stock. The third and fourth railways projects supported development of railway capacity by modernizing rolling stock, rehabilitating and maintaining locomotives, and improving railways' institutional and technical expertise. However, the outcome of these projects was rated unsatisfactory by OED, in part due to poor project design (poor quality at entry), implementation difficulties, and poor government ownership of the projects. After the closing of the fourth railways project, the Bank has been assisting the Government of Zambia through a PHRD grant in exploring the potential of restructuring and privatization of railways to increase their operating efficiency. The Bank recently approved the Railways Restructuring Project (2001) to support the restructuring and concessioning of Zambia Railways.

1.8 In the road sector, the Bank has financed five projects totaling US$129 million, with mixed results. The first highways project was approved in 1967 and the second two years later in 1969. Both projects were rated satisfactory by OED. They were designed to assist in the reconstruction of the two main trunk roads—the Great North Road and the Great East Road. The third highway project, however, was rated unsatisfactory by OED. The project focused on improving the maintenance of the rapidly deteriorating primary and secondary road network by strengthening the responsible institutions through the provision of equipment and technical assistance. However, lack of government commitment for road maintenance and delays in counterpart funding hampered the effective implementation of the project and achievement of project objectives. A number of project components were dropped for lack of government interest and lack counterpart funding. The Bank approved the Transport Engineering and Technical Assistance Project (TETAP) project in 1993 to assist the Government of Zambia in improving the management, financing, and maintenance of the road network. The ongoing Road Sector

5. OED Zambia Country Assistance Review, Turning an economy around.

Investment Program (ROASDSIP) was approved in 1998 to support appropriate investments in the roads sub-sector and to promote policy and institutional reforms in the road sector.

2. Relevance of Project Objectives

2.1 When TETAP was approved in 1993, the paved road network in Zambia was severely deteriorated. While 1984, 40 percent had been in good condition, 30 percent in fair condition, and 30 percent in poor condition, by 1995 these proportions had worsened to 20 percent , 29 percent, and 51 percent.[6] According to the Zambia Public Expenditure Review, spending on trunk and main roads covered about 20 to 40 percent of the maintenance requirements. For district roads, government allocation covered only 10 to 20 percent of the maintenance requirements.

2.2 At the time of the appraisal for TETAP, inadequate funding, lack of commitment to road maintenance, and a poor institutional framework were identified as the main road sector issues and causes for the deficiencies in Zambia's road sector. The institutional and financing framework suffered from inappropriate policies and inadequate planning and a lack of clearly defined responsibilities and managerial accountability. Existing regulations governing roads dated back to 1969 and no longer reflected current practices and policies. The road agencies suffered from lack of qualified and experienced staff to plan, organize, and supervise road works.

2.3 The deterioration of road networks was typical of conditions in Sub-Saharan Africa at the time. To address this problem, the Bank, together with other donors, launched the Road Maintenance Initiative (RMI) in Africa to raise awareness of the importance of road maintenance and to assist governments in designing reform programs to improve the management and financing of the road sector. Zambia and several other African countries adopted the RMI and began far-reaching reform initiatives to commercialize the management and financing of their road networks.

2.4 Within this context, the Bank approved the TETAP project with the overall objective to support the government's effort in (i) designing and implementing transport sector policy reforms; (ii) strengthening road sector institutions' capacity to plan and coordinate public expenditures for roads and to monitor sector performance; and (ii) carrying out the preparatory engineering work for the first year of a (proposed) five-year Roads Rehabilitation Project (RRP).

2.5 To achieve its objectives, the project financed policy support, institutional development, and project preparation components. The policy support component was directed at carrying out a national road transport policy study, which was to assist in reclassifying the road network, working out the detailed implications of establishing an autonomous Highway Authority, proposing arrangements for road financing (including introduction of a road tariff), and preparing a draft Highway Authority Bill for consideration by Parliament. The project preparation component was aimed at performing detailed engineering studies for the first year of the road rehabilitation program.

2.6 The institutional development component was designed to support implementation of a highway management system that would strengthen the Roads Department's capacity to identify and prioritize road investment; equipment management and maintenance study to efficiently manage the department's equipment and exploring the role of private sector in providing equipment and maintenance services; strengthen domestic construction and consulting industry by preparing an action plan for removing constraints to their development; establishment of a

6. World Bank. 1997. Zambia: Road Sector Investment Program. Staff Appraisal Report. Report No. 16539-ZA.

feeder roads section (FRS) within MLG; and training the implementing agencies in maintaining the project accounts and carrying out annual auditing.

2.7 The objectives of the project were highly relevant to Zambia's agenda for creating an enabling environment for enhanced growth and productivity. The overriding government goal for the roads sector is to increase road sector investment and improve facility to facilitate economic growth and diversification to other industries and reducing the economy's reliance in the mining industry. The components were adequately designed to achieve the project objectives. Institutional reforms were required as the country did not have the technical or financial capacity to rehabilitate and maintain a well-functioning network.

2.8 TETAP was consistent with the Bank's assistance strategy in Zambia to improve the climate for private sector development through deregulation, restructuring parastatals, and provision of infrastructure. It was also consistent with the Bank's strategy in the road sector and the RMI efforts to improve the institutional basis for the management and financing of the road sector.

3. Implementation Experience

3.1 The implementation of the project mirrored the fragmented nature of the institutions responsible for the transport sector in Zambia, with the three different ministries assuming responsibility for implementing their share of the components. The MCT, with its overall mandate for formulating road sector policies, was responsible for implementing the policy support component, while MLGH took charge of implementing the Feeder Roads Support (FRS) component and MWS for the detailed engineering and project preparation component and other institutional development components. MOFED was responsible for project accounting and auditing. The Directorate of Planning in MCT was responsible for overall project coordination. But with limited organizational capacity and a weak mandate, the Directorate was not able expedite the implementation of the project by the different implementing agencies. As a result, the project experienced significant delays during the first 18 months of project implementation. Project management was also affected by the frequent changes of project coordinator, resulting in delays in the processing and awarding of consultancy contracts. There were delays in counterpart funding and Tender Board approval.

3.2 The newly established National Roads Board (NRB) took over responsibility for project coordination in February 1995. Subsequently, project implementation improved significantly. The project was extended for one year to facilitate the completion of national transport study and the engineering studies for the three sections of the Great North Road.

3.3 There were no performance indicators for this project, as it was primarily a technical assistance project focused on studies and institutional development support. The project financed the following studies: Transport Policy Study, Equipment Maintenance and Management Study, Luangwa Bridge Study, Construction and Consulting Industry Study, Environmental Management Study, Road Safety Study, and Road Numbering and Mapping Study. All studies were successfully carried out and provided the conceptual basis for reforms as well as providing the legislative framework for road reclassification and establishing a highway authority.

4. Achievement of Project Objectives

Preparatory Engineering Studies

4.1 The preparatory engineering work for the first year of the Roads Rehabilitation Project (RRP) was satisfactorily carried out. The preparation of feasibility studies, detailed engineering design and bidding documents for the Great North Road were undertaken. The road is an important one in Zambia as it provides the main access to the port of Dar-es-Salaam for international transit. The resulting civil works for the Great North Road is being carried out through ROADSIP (the Bank's follow-on project), and other donors active in Zambia's road sector.

Institutional and Policy Reform

4.2 The project supported far-reaching institutional and policy reforms to improve the management and financing of the road network in Zambia. In 1993, the Government of Zambia introduced a fuel levy and established a Road Fund to provide dedicated funding for road maintenance, and in 1994, it established a Road Board with a private-sector orientation to manage the Road Fund on commercial principles. A "National Transport Policy" framework was drafted in 1995 and a Letter of Road Sector Policy was prepared and signed in March 1997. The reforms in Zambia are based on the principles in the RMI reform program and the Bank's strategy to "bring roads into the market place, put them on a fee-for-service basis, and manage them like a business."

The Road Fund

4.3 As recommended by the RMI, a road user charge in the form of fuel levy was introduced on May 1, 1993, and a dedicated Road Fund was established in October 1993 under the existing financial legislation. The fuel levy was initially set at K10 per liter (US¢ 1). The fuel levy was increased to K30 per liter in 1995, K40 per liter in 1996, and to 15 percent of the wholesale price in 1997. In 1999, it was equivalent to K84.3 per liter (US¢ 3.5).

4.4 The establishment of the Road Fund has contributed to an increase in resources for road maintenance. The disbursements from the Road Fund have more than doubled, from K10.5 billion in 1995 to K26 billion in 2000, as shown below. In terms of US dollars, however, the Road Fund revenue declined from US$12.2 million in 1995 to US$8.4 in 2000, due to the dramatic devaluation of the Kwacha.

Year	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*
Kwacha (billions)	10.5	13.6	10.3	27.2	14.2	26.0
US$(million)	12.2	11.3	7.8	14.6	5.9	8.4
Annual Official Exchange Rate	864	1208	1315	1862	2388	3110

Source: National Roads Board Annual Report, 2000; Source exchange rate is from **International Financial Statistics (IMF).**

4.5 Despite the increase in resources, only about 30 percent of the road maintenance needs are covered with the proceeds from the Road Fund. If fuel levy is to remain the only source of

road fund revenue, the amount of fuel levy required to meet the maintenance needs of the core road network has to be about US¢ 10.0 per liter.[7] Zambia's fuel levy would have to increase by a factor of at least three in real terms to meet road network maintenance requirements. But this would be difficult to achieve given the current macroeconomic condition of the country and the ability of road users to pay the fuel levy.[8] Instead, the National Road Board is exploring other road user charges such as channeling the proceeds from international transit fees, weigh bridge fees and fines, and vehicle license fees to the Road Fund revenues. But the legislative reform to broaden the Road Fund revenue base has yet to be implemented.

4.6 While funding for road maintenance has improved (in Kwacha revenue terms), the availability of funds is still unpredictable. Fuel levy remittances have been erratic and in arrears. The fuel levy is routed through the oil companies to the Zambian Revenue Authority, which deposits it into the Ministry of Finance and Economic Development (MOFED) account. MOFED then issues a check to the Road Board. The amount transferred from MOFED is sometimes less than the amount that is supposed to be remitted to the Road Fund (Table 1). MOFED is expected to remit the levy every 10 days, but remittances are often delayed, sometimes by more than 60 days. In 1999, MOFED owed the Road Board about K15 billion.[9] Due to erratic and delayed remittances of fuel levy, the efficacy of Road Fund is undermined and the Road Board is unable to commission road works o a planned basis. Direct deposit of fuel levy to the Road Fund account would require amending the Zambia's Revenue Act.

Table 1. Fuel Levy Remittances (US$ million)

Year	*1998*	*1999*	*2000 (June)*	*Total*
Estimated Levy	12.281	10.506	3.034	25.821
Actual Remitted to the Road Fund	12.221	8.363	2.785	23.369
Variance (Unremitted Fuel Levy)	(0.060)	(2.143)	(0.249)	(2.452)

Source: ROADSIP Mid-term Review Report

4.7 In addition to inadequate funding, there are a number of instances where Road Fund resources have been used for non-maintenance works. According to the 1999 National Roads Board Annual Report, Road Fund resources were diverted by the government to finance the Lusaka road works at the expense of maintenance of other roads throughout the country. However, toward the end of the year, Lusaka City roads were treated as a special project and funded directly by MOFED and funds were released for maintenance of other roads.

The National Roads Board

4.8 The Road Fund was poorly managed early on, as there was no board to manage it for 18 months. The fund was managed by a National Task Force under the Ministry of Public Works, which resulted in poor administration and misuse of the Road Fund. According to the Road Fund audit report,[10] money from the fund account was used on expenses other than road maintenance—to provide money for the purchase of vehicles, office equipment, and payment of hotel bills. Also,

7. In Ghana, the fuel levy in 1998 was about US¢ 6 per liter.

8. Kumar, Ajay. 2000. Assessment of Selected Road Funds in Africa. Sub-Saharan Africa Transport Policy Program, SSATP Working Paper No. 51. World Bank.

9. National Roads Board, Annual Report 1999.

10. World Bank Road Financing and Road Fund Database. Extracts from Audit Reports carried out on conventional Road Funds.

money was paid to contractors without reliable records showing that the works had been done. Payments were made for materials that were never supplied. The establishment of the National Roads Boards (NRB) in 1994 to manage the Road Fund, has improved the management of the fund and brought some level of transparency in the administration of the fund.

4.9 The NRB was established under a Ministerial Order. It has 11 members, seven of whom are from the private sector and road users' groups and four of whom are from the public sector. The private sector members have voting rights, the public sector members do not, ensuring that the private sector controls the board's actions. The Board reports to a Committee of Ministers consisting of the Minister of Transport and Communications (Chairperson), Minister of Works and Supply, Minister Local Government and Housing, and Minister of Water Development and Housing. The NRB is supported by a secretariat, consisting of eight staff with expertise in administration, procurement, engineering, and finance.

4.10 The establishment of Road Fund and Roads Board are significant steps toward commercializing the management and financing of the road network in Zambia and in securing funding for road maintenance. The board has launched a 10-year Road Sector Investment Program (ROADSIP) to rehabilitate and maintain the road network on a sustainable basis. It has also promoted the use of private contractors. Since its inception, NRB has considerably improved road conditions in Zambia. The proportion of paved road in good condition improved from 20 percent of the network in 1995 to 35 percent in 1999. The roads in poor condition correspondingly declined from 51 percent in 1995 to 29 percent in 1999.[11]

4.11 The NRB has a weak legal framework, however, as it was established under a Ministerial Order rather than a Parliamentary Act. The lack of a legal framework exposes the Road Board to discretionary behavior by the executive branch of the government—a new Ministerial Order can easily disband the NRB. The only protection the NRB has is continued good performance in the management of the Road Fund and the substantial international visibility and donor support it enjoys. Without this external support, however, the NRB's continued existences is not assured.

Strengthening Government Institutional Capacity

4.12 Progress was made on strengthening the government's capacity to improve the planning and management of the road sector. A program of road reclassification, numbering and mapping was undertaken. A Highway Management System (HMS) to assist the Roads Department in prioritizing maintenance and rehabilitation for the main road network is under implementation, but has been delayed due to a poor working relationship between the Roads Department and the consultant retained to for the task. Efforts are underway to make the HMS operational.

4.13 Zambia's fragmented institutional arrangement for the road sector (see para. 1.4-1.5) has limited the extent to which institutional capacity can be increased. The existence of several ministries and departments responsible for the road network results in poor coordination and inappropriate use of scarce institutional capacity. This arrangement has led to poor ownership of government policies and inadequate supervision of policy implementation. MCT's Planning Unit has limited organizational capacity and weak institutional mandate to supervise the implementation of the government's road sector policies by the various departments. The Planning Unit lacks technical expertise and has insufficiently trained and experienced staff. There is a need to streamline policy planning and its implementation. Experience in other countries

11. Ministry of Communication and Transport, Zambia. 2000. Report on the strategic plan for the improvement of road transport in Zambia.

suggests that there are efficiency gains from having one ministry responsible for the government's road sector policies.

Department of Roads

4.14 Under the GOZ's Public Sector Reform Program (PSRP), a restructuring plan was prepared for the Roads Department as part of overall restructuring of the MWS. This was implemented in 1997 and included increased reliance on the private sector for road construction and maintenance, reduction of staff, the phasing out of force account, and strengthening of contract management and contract supervision activities.[12] About two-thirds of casual staff and 15 percent of regular staff were declared surplus. The restructuring also required that the Roads Department dispose of most of its vehicles and plant pool.

4.15 The crucial issue for the Roads Department remains how to build management and technical capacity. It is short of skilled labor, especially in engineering, accounting, and contract management. Because the government employment conditions and salary structure are low, the Roads Department is unable to attract qualified staff to improve its management of the road network. A fundamental institutional change is needed to transform the Roads Department into a modern roads department. The institutional option that has been under discussion is the establishment some form of a national highway authority. Studies for creating a National Road Transport Authority (NRTA) have been conducted. But a number issues have yet to be worked out, including how the NRTA will relate to the country's political structure and the government's policy on decentralization and the degree of independence under which it will operate. In particular, the management of lower-level roads needs to be consistent with the policy to delegate administrative responsibilities to local governments.

Department of Infrastructure Support Services (DISS)

4.16 At the central government level, the Ministry of Local Government and Housing is responsible for the management of urban and rural roads. As part of the Public Sector Reform Program, the Department of Infrastructure Support Services (DISS) was established to provide a link between the Ministry and Funding Agencies, and to provide technical support to district councils responsible for the feeder roads.

4.17 The management of road works under DISS suffers from weak institutional capacity. An important issue relating to the government's policy of decentralization is how to strengthen the management of roads at the local level. Training for DISS staff in contract management and general road management is needed.

District Council

4.18 The District Councils are the primary providers of local services. The councils are weak and service delivery is constrained by the narrow revenue base, shortage of qualified technical staff, and lack of equipment. The Council Works Department is responsible for road works as well as water and housing. But the District Councils need support and guidance from the central government for manpower recruitment and retention, vehicles, plant and equipment, and financial support for maintenance.[13]

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12. All staff had to resign and reapply for the posts in the Ministry.

13. ROADSIP, Draft Bankable Document, pages 5-12 to 5-13.

Enhanced Opportunities for the Private Sector in Road Construction

4.19 The NRB has assisted in the development of the domestic construction and consulting industry by providing work opportunities, training, and funding for maintenance. It has also instituted procedures for contract management, monitoring contract proposals, and disbursements. In the past, 94 percent of road work was done by force account, now 90 percent is done by contract. The number of local contractors increased from 4 in 1994 to about 450 in 1999, and local consultancies increased from 6 to 20 over the same period. Consequently, the pricing for some road works has declined by about 40 percent.

4.20 While there has been considerable progress toward the development of the local construction and consulting industry, the development needs to be further broadened and deepened. The construction industry is mainly concentrated in Lusaka and the procurement process is highly centralized even though there are Provincial and District Tender Committees. Due to inadequate contractor registration and poorly maintained records, contracts are sometimes awarded to incompetent firms. There have been cases where the District or Provincial Tender Committees have blacklisted some contractors, but the Central Tender Board has awarded contracts to the blacklisted contractor. Government procurement and payment procedures are very slow.

4.21 There are no local large-scale contractors and few medium-scale contractors. Lack of opportunities for public works contracts has limited the growth of large- and medium-scale contractors. The capacity of small-scale contractors is still very weak and they lack equipment. This is mainly because they have insufficient resources to procure equipment. The medium-scale contractors have some equipment, but most of it is in very bad state. There are very few equipment leasing companies and most of them are located in the cities (Lusaka, Ndola, and Kitwe). Moreover, successful leasing arrangements depend on continuity of work, which most small-scale contractors cannot provide.

4.22 One objective of ROADSIP is to strengthen the local construction and consulting industry. According to the ROADSIP mid-term review report, development of domestic contractors requires: (i) providing contractors and consultants adequate training; (ii) packaging works in a way that helps domestic firms access contracts (work slicing, and subcontracting); (iii) increasing demand; (iv) improving the quality of works; (v) simplifying bidding and contracting procedures; (vi) helping the industry access equipment; (vii) ensuring prompt payment to contractors; (viii) setting up and maintaining effective contractor registration; and (ix) organizing efficient works supervision.

4.23 The Roads Department Training School (RDTS), Copperbelt University (CBU), Industrial Training Center (ITC) and Northern Technical College (NTC) are the various institutions that offer training related to road construction and maintenance. The RDTS has been partially strengthened, however, the legal status and organization of RDTS needs to be clarified. The board is not in place to run the school as a trust. RDTS has not offered a plant/equipment operators course in a long time. This has created gaps in the skill required for the construction industry. Some of the contractors have not completed the training on labor-based techniques. RDTS needs to ensure that the uncompleted training program is concluded.

5. Project Ratings

Outcome

5.1 OED rates the outcome of the project *satisfactory*. The project has laid a strong foundation for improved management and financing of the roads sector by involving private sector participation. It played an important role in establishing the Road Fund and National Roads Board. Several important studies were conducted and have been used to establish road transport policies and improve the institutional framework for managing and financing the road network.

5.2 The project was successful in instituting a road maintenance culture that has contributed to a substantial improvement in road conditions. It facilitated the use of private contractors for road maintenance and reduced reliance on force account to fund works. Measures are being taken to strengthen the local contracting and consulting industry.

5.3 Awareness of road safety has increased with the preparation of Road Safety Action Plan. Guidelines for Environmental Management of the roads have been prepared to mitigate the adverse effects that road works might have on the environment.

Institutional Development

5.4 OED rates institutional development impact *substantial*, the same as the ICR rating. The project substantially contributed to the institutional development of the road sector in Zambia and in introducing the concept of managing roads on commercial principles.

Sustainability

5.5 The PAR confirms the *likely* rating of the ICR for sustainability of the project benefits. The Road Fund and NRB assure the maintenance of the road network.

Bank Performance

5.6 The PAR rates the Bank performance *satisfactory,* consistent with the ICR rating. The Bank, through this project and the RMI, provided critical assistance to the government to reform the institutional framework of the road sector.

Borrower Performance

5.7 In agreement with the ICR, the PAR rates the borrower performance *satisfactory*. The borrower was able to undertake far-reaching institutional reforms that require substantial political commitment and consensus building among the different interests concerned. The degree of internal consultation in the development of recommendations for policy and institutional reforms was very high. However, the government capacity to fully and effectively carry out all identified reforms was limited. There were delays in following up on agreed action plans in some areas.[14]

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14. Aid-Memoire – ICR.

5.8 There were some start-up delays and problems with meeting counterpart funding requirements. In addition, Zambia's Tender Board delayed signing tender contracts and there were chronic delays with contractor payment.

6. Lessons Learned

6.1 The main lessons learned from this project are:

- A government capable of passing far-reaching institutional and policy reforms without using the political process is *also* capable of reversing those reforms without much debate and deliberation. The establishment of the Road Fund and the National Roads Board using the government's discretionary power without involving the legislative branch of the government leaves both vulnerable to dissolution by a similar ministerial order.
- The efficacy of organizational strengthening is limited by the institutional organization of the sector. A fragmented institutional arrangement decreases the returns from institutional development effort.
- While a Road Fund can provide sustained and stable resources for road maintenance, its sustainability depends on: (i) limiting the government's ability to use the Fund for other purposes; (ii) having a broad-based revenue sources; (iii) making direct deposit of fuel levies to the Road Fund account to avoid delays in transfer; and (iv) having an active participation of key players and stakeholders.
- Private sector participation in road maintenance can provide substantial benefits. However, these benefits can be sustained only if the road agencies can develop the capacity to manage contracts. Under the PSRP, a restructuring plan was prepared for the Roads Department to strengthen contract management and contract supervision activities.

Annex A. Letter of Sector Policy

The letter summarizes the various policy measures which the Government intends to pursue to support implementation of its road sector strategy 1997 to 2002. Specific objectives were set for the road sector in a number of areas. These are listed below:

- Speed up the institutional reform process through the Public Service Reform Program (PRSP)
- Pursue an ambitious privatization program aimed at increasing participation of the private sector in the economy
- Establish a system of pricing that will ensure a reasonable return on transport investments
- Accord high priority to rehabilitation and maintenance
- Create a domestic sustainable system for financing and management of the road network which will reduce dependence on external financing for maintenance and rehabilitation
- Increase the proportion of roads in good condition to no less than 50 percent
- Address poor accessibility in rural areas with emphasis on feeder roads leading to productive areas
- Put in place measures that will mitigate against adverse effects that road works might have on the environment
- Creating an appropriate institutional framework for management of the road network
- Ensuring effective arrangements for the management of road maintenance -
    - restructure Roads Department and turn it into an organization which plans and supervises work carried out by private sector consultants and contractors. Phase force account within a period of five years.
    - strengthen National Roads Board and publish appropriate legislation
    - al least three months before the end of consultants contract, MLGH will advise the Bank on what steps it intends to take to ensure it has capacity to continue supporting the Department of Infrastructure Support Services
- Rehabilitating priority roads, given the large backlog of deferred maintenance, the focus (under ROADSIP) will be on rehabilitation of roads classified as being in poor condition
- Developing the domestic construction and consulting industry
- Improving management of Roads Department plant and equipment, dispose of all unserviceable plant and equipment and downsize the existing Mechanical Engineering (MES) in the RD in line with PRSP
- Mobilizing and allocation of roads sector revenues:
    - All road user charges will be channeled through the Road Fund. Road Fund resources will be allocated as follows: (a) as a first charge, routine and periodic maintenance of all core roads classified as being in good and fair condition; (b) as a second charge, counterpart funding of donor-financed rehabilitation program; (c) the costs of managing the road fund which are not to exceed 5 percent of the road fund revenues mobilized through road user charges
    - Increase road user charges and allocate to the road fund the international transit fees, weighbridge fines and a portion of road service license
    - Streamline procedures for managing fuel levy proceeds, Zambia National Oil Company to deposit fuel levy into Ministry of Finance and Economic Development account, who in turn shall channel it without delay into the road fund account.
- Improving road safety
- Revising road sector legislation

Annex B. Basic Data Sheet

TRANSPORT ENGINEERING AND TECHNICAL ASSISTANCE PROJECT (CREDIT 2515-ZA)

Key Project Data (amounts in US$ million)

	Appraisal estimate	*Actual or current estimate*
Total project costs	9.0	8.5
Loan amount	8.5	7.9
Cofinancing	-	-
Date physical components completed	Dec.31,1996	Mar.31, 1998
Economic rate of return	N/A	N/A

Cumulative Estimated and Actual Disbursements

	FY93/94	*FY94/95*	*FY95/96*	*FY96/97*	*FY97/98*	*FY98/99*
Appraisal Estimate	2.12	5.1	7.6	8.5	8.5	8.5
Annual	2.1	3.0	2.5	0.9	0.0	0.0
Actual-Annual	0.0	1.2	3.3	1.5	1.5	0.4
Actual-Cumulative	0.0	1.2	4.5	6.0	7.5	7.9
Actual as % of Estimate	0.0	24	59	71	88	93
Date of Final Disbursement	12/16/1998					

Project Timetable

Stage of project cycle	*Date Planned*	*Date Actual*
Identification /Preparation		February 1992
Appraisal	September 1992	September 1992
Negotiations	April 1993	April 1993
Board Presentation		June 17, 1993
Signing		September 30,1993
Effectiveness	October 1993	November 29, 1993
Project Completion	December 31, 1996	March 31, 1998 [1]
Loan/Credit Closing	June 30, 1997	June 30, 1998

1/ Some components were absorbed under the follow-on project.

Staff Inputs

Stage of project cycle	*Revised* *Weeks US$*	*Actual* *Weeks US$*	
Through Appraisal		35.8	4.6
Appraisal – Board		23.0	75.3
Board – Effectiveness		5.8	18.8
Supervision		92.1	355.6
Completion		3.8	8.0
Total		160.5	462.3

Mission Data

Stage of project cycle	Month/ year	No. of persons	Staff days in field	Specialized staff skills represented	Participated in Prevision Mission (yes/No	Performance rating		Comments
						Implementation Status	Development Objectives	
Through Appraisal								N.A.
Appraisal through Board approval								N.A.
Board approval through effectiveness								N.A.
Supervision 1	Oct. 93	2	4	PIE ECO/TM	Yes	S	S	Credit not yet effective. This is the first supervision mission. Administrative problem (appointment of a new Project Coordinator) due changes in the Ministries;objections raised by local consulting firms the concern the probability of conflict of interest in awarding contracts.
Supervision 2	Jun 95	2	6	SR ECO/TM TE	Yes	S	S	Cumbersome Government bureaucracy-the Zambia National Tender Board delay in signing the Tender contracts:Unavailability of Government counterpart funds the 10% required for the consultancies managed by the Roads Department.
Supervision 3	Oct.95	4	10	SOPOF/TM Roads Adviser TP HE	No Yes No No	S	S	No major problem. Major progress has been made since the last supervision mission since NRB took over coordination of project.
Supervision 4	Mar 96	7	5	SOPOF:TM Road Adviser TP HE ECO x 2 Environmentalist	Yes Yes Yes Yes No x 2 No	S	S	Use of credit proceeds to finance preparation work for ROADSIP as agreed.
Supervision 5	Jul 96	1	5	SOPOF/TM	Yes	S	S	Continued Progress being made in most areas: however lack of counterpart staff for consultants for capacity building was a problem.
Supervision 6	Mar 97	3	5	SOPOF/TN HE ECO	Yes Yes No	S	S	Delays in payment of contractors. Coordinator working without a contract. Follow-up on action plans needed.
Supervision 7	Jun 97	2	4	SOPOF/TM TP	Yes No	S	S	Continued problem with lock or quality of counterpart staff.
Supervision 8	Oct.1997	5	5	SOPOF/TM TP HE ECO TA	Yes Yes No No No	S	S	Financial Problems. Diversion of project funds, delays in submitting disbursement applications being addressed however, follow-up on action plans needed.
Completion	July 1998	2	10	SOPOF/TM ECO	Yes No	S	S	ICR Mission