PROJECT PERFORMANCE ASSESSMENT REPORT

UNITED REPUBLIC OF TANZANIA
SECOND INTEGRATED ROADS PROJECT
(CREDIT NO 2598-TA)
CENTRAL TRANSPORT CORRIDOR PROJECT
(CREDIT NO 3888-TA)

REPUBLIC OF UGANDA
ROADS SECTOR INSTITUTIONAL SUPPORT TECHNICAL ASSISTANCE PROJECT
(CREDIT NO 2987-UG)
ROADS DEVELOPMENT PROGRAM PHASE I
(CREDIT NO 3267-UG)
ROADS DEVELOPMENT PROGRAM PHASE II
(CREDIT NO 3544-UG)

June 21, 2011

Public Sector Evaluation Department
Independent Evaluation Group
**Currency Equivalents (annual averages)**

**TANZANIA**

_Currency Unit = Tanzania Shilling (TZS)_

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**UGANDA**

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Abbreviations and Acronyms

AfDB  African Development Bank
APL   Adaptable Program Loan
CAA   Civil Aviation Authority (Uganda)
CAS   Country Assistance Strategy
CTCP1 First Central Transport Corridor Project
CTCP2 Second Central Transport Corridor Project
DANIDA Danish International Development Agency
DCA   Development Credit Agreement
DfID  British Department of Development Aid
DRC   Democratic Republic of Congo
DUCAR District, Urban and Community Roads
EC    European Commission
EIA   Environmental Impact Assessment
ELU   Environmental Liaison Unit
ERR   Economic Rate of Return
GoT   Government of Tanzania
GoU   Government of Uganda
HDM   Highway Design and Maintenance Model
ICAO  International Civil Aviation Organization
ICR   Implementation Completion Report
IDA   International Development Association
IEG   Independent Evaluation Group
IFC   International Finance Corporation
IRP-I First Integrated Roads Project (Tanzania)
IRP-II Second Integrated Roads Project (Tanzania)
ISR   Implementation Status Report
JICA  Japan International Cooperation Agency
KADCO Kilimanjaro Airport Development Company Ltd
KIA   Kilimanjaro International Airport
LAN   Local Access Network
MoCT  Ministry of Communications and Transport (Zanzibar)
MOWCT Ministry of Works, Communications and Transport (Tanzania)
MOWT  Ministry of Works and Transport (Uganda)
NCC   National Construction Council
NDF   Nordic Development Fund
NRSRA National Road Safety Authority
PAD   Project Appraisal Document
PBC   Performance-based Contract
PDO   Project Development Objective
PMMR Performance-based Management and Maintenance of Roads
PMO-RALG Prime Minister’s Office, Regional and Local Government (Tanzania)
PPAR  Project Performance Assessment Report
PPIAF Public-Private Infrastructure Advisory Facility
PPP   Public Private Partnership
Fiscal Year for Both Countries

Government fiscal year: July 1- June 30

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<td>Director, IEG Public Sector Evaluation</td>
<td>Ms. Monika Huppi (Acting)</td>
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<td>Task Manager</td>
<td>Mr. Roy Gilbert</td>
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About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank’s self-evaluation process and to verify that the Bank’s work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the Bank’s lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examines project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers’ comments are attached to the document that is sent to the Bank’s Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System

IEG’s use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: http://worldbank.org/ieg).

**Outcome:** The extent to which the operation’s major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project’s objectives are consistent with the country’s current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). Relevance of design is the extent to which the project’s design is consistent with the stated objectives. *Efficacy* is the extent to which the project’s objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Risk to Development Outcome:** The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agencies performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.
Preface

This Project Performance Assessment Report (PPAR), prepared by the Independent Evaluation Group (IEG), evaluates a cluster of transport projects in the United Republic of Tanzania and the Republic of Uganda in East Africa, focused primarily on rural roads, but with some components involving other modes of transport. A common objective of the projects is to improve accessibility to people and markets in a sustainable manner.

The two Tanzanian projects are the Second Integrated Roads Project [IRPII] (Credit 2598-TA) and the follow-on (First) Central Transport Corridor Project [CTCP1] (Credit 3888- TA). The three projects in Uganda comprise the Road Sector Institutional Support Technical Assistance Project, (RSISTAP), Credit 2987-UG—which supported the First and Second Phases of the Roads Development [RDP-1 and 2] using Adaptable Program Loans (APL), Credit 3267-UG, and Credit 3544-UG respectively.

An IDA credit to the Government of Tanzania for IRP-II of US$170.20 million was approved by the Board of Directors on April 7, 1994. It formed part of an integrated roads program supported by 17 donor organizations and countries and had a total value of US$650.20 million. The credit amount disbursed by the Bank was US$89.3 million (US$79.43 million was cancelled), while the final amount disbursed for the program was US$ 669.82 million. However, IDA disbursements were halted by the Bank for a period of four years while an investigation concerning serious implementation capacity issues and governance problems was carried out. In 1998, the credit was restructured and the closing date was extended to 2004 to partially allow for the loss of implementation time. The Board of Directors approved a credit for the follow-on CTCP1 project on April 29, 2004, in the amount of US$122.00 million. This project contained several components that could not be completed under the previous project. At closure this credit was fully disbursed.

On September 9, 1997, the Board of Directors approved a technical assistance credit for US$30.00 million to the Government of Uganda to provide institutional support for a two phase road development program APL. The estimated total cost of RSISTAP at appraisal was US$33.00 million. At completion, all but US$0.1 million was disbursed and the final project cost was US$33.97 million. On June 29, 1999 the Board of Directors approved the RDP-1 credit amounting to US$90.98 million. The total estimated project cost at appraisal was US$119.94 million. The credit was fully disbursed and the final project cost was US$120.99 million. RDP-2 was approved by the Board on March 7, 2001, when the credit amount was US$64.52 million, and the estimated total project cost at appraisal, US$97.00 million. The credit was fully disbursed in the amount of US$75.70 million (the higher figure is due to the depreciation of the US dollar against the SDR) and the final project cost was US$106.33 million, which included US$1.18 million from the Nordic Development Fund (NDF).

The projects were selected for assessment because they had similar objectives, but differing constraints, and were implemented in countries with large rural populations and where— for the agricultural sector— the movement of produce and eradication of
transport bottlenecks, were critical both for sustaining local livelihoods and for reaching export markets. In both countries, institutional capacity was originally weak, but has improved over time, whilst the sustainability of the infrastructure, though better, remains an issue. The findings on sustainability will be a useful input into a larger IEG study on the sustainability of infrastructure in developing countries in general.

IEG prepared this report based on an examination of the relevant Project Appraisal Documents (PADs), Implementation Completion Reports (ICRs), legal agreements, project files and archives, as well as other relevant reports, documents, memoranda and working papers. Discussions were held with Bank staff (current and retired) in Washington DC and in Tanzania and Uganda. An IEG field mission visited both countries in November, 2010. The mission discussed all the projects and the effectiveness of Bank assistance with relevant officials, stakeholders and users of the transport systems, and expresses its appreciation for the generous attention given by the Borrowers and all concerned parties.

Following IEG practice, copies of the draft PPAR were sent to government officials and implementing agencies for their review. Comments received from the government of Tanzania are reflected in Annex A, Appendix 2. No comments were received from the government of Uganda.
Summary

This PPAR assesses the development effectiveness of five East African transport projects in the United Republic of Tanzania and the Republic of Uganda focused primarily on rural roads, but with some components, especially in the Tanzanian projects, involving other modes of transport, principally rail and air. The two Tanzanian projects are the Second Integrated Roads Project (IRPII) Credit 2598-TA and the follow-on (First) Central Transport Corridor Project (CTCP1) Credit 3888-TA. The three projects in Uganda comprise the Road Sector Institutional Support Technical Assistance Project (RSISTAP), Credit 2987-UG, which supported the First and Second Phases of the Roads Development projects (RDP-1 and 2) financed by Adaptable Program Loans (APLs), Credits 3267-UG, and 3544-UG respectively.

Key Objectives

There are three objectives common to both countries and one specific to Tanzania:

- Improve access and economic growth through upgrading strategic road links;
- Reform the management, planning and financing of the road sub-sector through the creation of autonomous Road Agencies, supported by Road Funds;
- Improve transport sector policy and management.
- The specific objective in Tanzania was to improve the operation of the railways. While this would also improve economic growth it was to be achieved through a private sector concession.

Road Agencies are autonomous road management entities independent from line ministries, while Road Funds are an independent source of funding for road maintenance based on road-user charges. In Tanzania, which began reforming earlier, transport sector institutions have reached a greater stage of maturity than Uganda’s. Some lessons emerging from this report may be useful to the East African region and, indeed, to other countries in Africa. Conversely, Uganda has paid greater attention to road safety, and has implemented an innovative demonstration project for using alternative local construction materials for low volume roads that will provide valuable learning. The period covered by these projects is from 1995 to 2009. Based on this evaluation the following conclusions are evident:

Improving Accessibility, Supporting Economic Growth and Achieving Sustainability

Overall both Tanzania and Uganda have progressed a long way since the nineties, especially in the road sub-sector. The percentage of main roads in good condition has increased substantially. In 2009, 87.5 percent of such roads in Tanzania and 70 percent in Uganda were in good to fair condition, compared to less than 50 percent ten years earlier. While this has contributed to enhance access to markets for the rural poor, small farmers and businessmen, both countries lag the region in terms of the percentage of roads that are paved. Currently, 40 percent of Tanzania’s main roads are surfaced and 32 percent of Uganda’s.
Taken as a whole, the physical road network improvements resulted in considerable
time and cost savings for all road users, improved accessibility for public transport, and
enabled people and goods to reach markets more quickly. The Tanzania railway component
had problems, however and the concession ultimately failed, after which the Government re-
assumed responsibility.

Despite stronger institutions and capacity the risks to development outcome remain
significant. The decline of the railways in Tanzania and the generation of additional truck
traffic have shortened the expected life of at least part of the central corridor road. Only
about 64 percent of periodic maintenance needs are currently funded in Tanzania. Failure to
maintain the remaining 36 percent will create a premature need for roads to be rehabilitated,
which is costly to the country and means that funding from development partners could have
been spent more productively. The rail component is facing a huge backlog in maintenance,
and suffers from declining financial and technical viability. Continued sustainability is
therefore in doubt.

In Uganda, legislative approval to finance the Road Fund through user charges has
not yet been obtained, while the Road Fund’s income is currently insufficient to address the
road maintenance backlog. Although the Road Fund’s financing is not yet assured, the
Uganda National Roads Authority has had to take on responsibility for an additional 10,000
km of district roads, as well as urban roads in Kampala, putting a considerable burden on a
young organization.

Reforming Transport Sector Policy

The advantages of establishing autonomous Road Agencies and independent Road
Funds in Tanzania and Uganda include effective performance based structures not tied to
civil service remuneration levels, accountability to management boards representing the
public and private sectors, and priorities driven primarily by economic considerations. A
further significant reform has been to change from force account (or own labor force) to
contracting out road maintenance works.

Tanzania, despite early setbacks with mismanagement and corruption in the nineties,
has made steady progress in terms of policy reform. At the closure of CTCP1, Transport
Master Plans were in place, a Road Fund had been set up (its framework cited as best
practice in Sub-Saharan Africa) and an autonomous, performance-based Road Agency was
operating with a clear separation between its operational activities and the policy and
regulatory functions of central government. Force account work has been phased out in favor
of using local private sector contractors. Some 87.5 percent of the main road network is in
good condition. Moreover, there has been a recent move to test performance based road
maintenance contracting, which has proved to be successful in other countries. The main
feature of such contracts is that the contractor is paid a fixed fee for keeping the road at a pre-
defined service level and is penalized for not doing so. However, despite significant increases
in the user fee levels there remains a maintenance backlog and only two thirds of routine
maintenance needs are covered.

In Uganda progress towards policy reform has been slower and more moderate. A
Road Agency (Authority) and a Road Fund have been established after some considerable
delay, and some 70 percent of Uganda’s main roads are in good or fair condition, but serious concern remains about sustainability, because of uncertain funding for maintenance (the fuel levies are not yet directly paid into the Road Fund) and inadequate staffing to cope with the present increased budget and work load. In house force account work has been reduced, but not yet phased out. There are also concerns about the lack of effective control of overloaded vehicles, the additional and largely unfunded responsibility for 10,000 km of recently re-designated district roads as well as the main urban roads in Kampala. Allegations of corruption are also now under investigation. At the request of the Ministry of Finance, Planning and Economic Development, the Bank has proposed remedial measures including independent procurement and technical advisors and the introduction of performance and output-based contracts. Although consideration is being given to performance based maintenance contracts, none have yet been commissioned.

Other challenges remain in both countries, including fully covering maintenance needs, developing a cost recovery policy, an updated transport planning framework that takes into account the interaction of both the road and rail modes, and the need for renewed emphasis on seeking a stronger role for the private sector. Road safety is also an area needing more focused attention, since the road accident and fatality records in both countries are dismal.

Monitoring and evaluation was neglected in both countries, especially in the earlier projects when the implementing agencies lacked the capacity to undertake these functions; a decade ago the Bank was also less rigorous in this area than it is nowadays. In the projects reviewed in this assessment the development objectives were often too broadly framed to be measured meaningfully and insufficient thought was put into the results framework. Most projects took longer to be completed than planned and there was a tendency to add components from different sub sectors and such revisions further prolonged project life and complicated implementation. It was sometimes argued that this would save transaction costs, but in IEG’s view this was more than offset by the costs caused by greater complexity.

In respect of railways in Tanzania, the attempt to concession TRL was unsuccessful. Alternative solutions such as a new railway system using standard gauge track may be unaffordable unless the private sector agrees to support the venture. IEG is concerned that unless some intervention is made soon, the TRL rail assets may not be recoverable, with continued damaging consequences for the road system and, potentially, for the environment.

**Ratings**

In terms of development outcome, except for Tanzania’s Second Integrated Roads Project in the troubled nineties, all the other projects completed in the last ten years have had *moderately satisfactory* outcome ratings. There have been some problems, but overall the picture is positive. However, there are financial risks to development outcome results, which are *significant* in Tanzania and *high* in Uganda. The focus therefore needs to be on future sustainability. Bank and Borrower performance, again except for the Tanzania Second Integrated Roads Project, has been *moderately satisfactory*, where as for the latter it has been unsatisfactory.
What value did the Bank add? There have been significant improvements in financial management, auditing and procurement, and the Bank played a strong role in supporting the Borrowers in these areas. The road, ferry and airport components were well supervised, especially the safeguard aspects, and the supervision team was flexible and helpful in accommodating additional requests. The Bank team also provided guidance on the latest experiences in respect of the creation of new institutions, strengthening contract management, providing useful technical assistance, and enhancing donor collaboration in the road sector.

However, the Bank’s supervision teams could have been more realistic in assigning the ratings for development objectives and implementation performance in its implementation supervision reports, especially in the case of the railways. They could also have been more pro-active in addressing the causes of project delays, communicated more effectively and alerted management on a timelier basis to impending issues. Finally they could have given more attention to ensuring sound M&E procedures were followed with a proper results framework.

The Borrowers also accomplished much. In both countries they moved the goalposts by establishing autonomous Road Agencies and Road Funds. They gradually improved financial management and procurement, while most of the physical project components had positive outcomes, albeit with some flaws in contractor selection and cost overruns. A shortage of skilled staff remains a constraint and both countries experience problems due to inadequate funds. Progress has been made towards greater involvement of the private sector, but there is scope for more headway in this area in both countries.

Lessons

The following main lessons are drawn from this PPAR:

- The Road Agency model has provided sufficient institutional capacity in low income countries such as Tanzania and Uganda to improve the delivery of new main roads and their maintenance. Supporting Road Funds can further enhance road sub-sector reform provided they are properly designed and adequately resourced. Working together, these institutions can substantially improve the performance of road management and coverage of maintenance needs from a dedicated fund.

- During road reform initiatives, the Borrower’s absorptive capacity, the degree of opposition to change and the time it takes to prepare and adopt new legislation, have often been miscalculated by the Bank and other development partners. The Bank thus needs to ensure appropriate training and skills deployment to i) assess and address the Borrower’s institutional and absorptive capacity limitations; ii) gauge the degree of resistance to change and make a plan to deal with it, and iii) realistically estimate the time it takes to prepare, adopt and apply new legislation.

- An annual assessment of the condition and traffic usage of the roads in the network enables the decision makers and the public to understand the implications of greater or lesser funding. The development partners can also ascertain the extent to which the assets created using their finance are being preserved.
When two modes such as road and rail are competing for freight traffic in the same corridor an improvement or deterioration in the one mode will affect the traffic using the other. This has implications for transport policy and strategy and should also be built into the risk analysis before an investment is made.

Rehabilitating and reforming rail systems is a demanding and complex undertaking that normally requires dedicated staff and expertise. This should be accomplished through an exclusive and separate operation, and not tacked on to an existing road project. In the case of competing transport modes, key decisions need to be made about infrastructure provision. If the railways are to be shut down, the roads must be built with stronger pavements. If the railways are to continue functioning, then serious investment is necessary, and the willingness to bear some of the cost by mining companies and other major users and stakeholders assumes importance. The balance between road and rail can be altered by regulation, but before taking such action a thorough cost benefit analysis is needed.

Public private partnerships will only be successful if there are real opportunities for gain by both parties, as was the case in the port of Dar es Salaam. If, as in the railway case, the track is old, the equipment worn out, and the market forecasts uncertain, top quality investors will not be interested unless there is a subsidy from Government.

Contingency plans are necessary when concessions are considered to determine the strategy that should be followed in the event of delay or lack of interest. It is in such a hiatus that institutional capacity can become weakened and maintenance neglected.

Vinod Thomas
Director-General
Evaluation
### 1. Introduction

1.1 This PPAR evaluates five transport projects in Tanzania and Uganda focused primarily on rural roads, but in some cases with components involving other modes, principally rail and air. Three common objectives emerge: improving road access to promote economic growth through upgrading strategic road and rail links; improving the management, planning and financing of the road sector; and improving transport policy making, see Table 1.

#### Table 1. Project Objectives

<table>
<thead>
<tr>
<th>Project</th>
<th>Accessibility and Economic Growth</th>
<th>Sustainable Reform/Capacity Building</th>
<th>Engaging the private sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanzania Second Integrated Roads (1994-2006)</td>
<td>Improve accessibility to economically productive areas through upgrading priority roads; Increase accessibility and rural mobility through rehabilitating rural infrastructure and through intermediate means of transport</td>
<td>Improve sector administration, management and financing of the road network and efficient provision of transport services through sustainable policy and institutional reform and coordination of sector activities</td>
<td></td>
</tr>
<tr>
<td>Tanzania Central Transport Corridor Project (2004-2009)</td>
<td>Upgrade strategic road links; improve the operation of Tanzania Railways</td>
<td>Enhance road management capacity</td>
<td>Improve rail ops through a private sector concession</td>
</tr>
<tr>
<td>Uganda TA Road Sector Institutional Support (1997-2007)</td>
<td>Prepare for physical infrastructure components to be included in a road sector program aimed at contributing to economic growth and poverty alleviation and to improved access to social services</td>
<td>Strengthen government’s road sector management capability through the creation of an autonomous performance-based road agency; Improve transport sector policy and management through redefining the government ministry as a regulatory and planning body</td>
<td></td>
</tr>
<tr>
<td>Uganda RDP 1 (1999-2008)</td>
<td>Improve access to rural areas and economically productive areas</td>
<td>Gradually build up road sector planning and management capability</td>
<td></td>
</tr>
<tr>
<td>Uganda RDP 2 (2001-2008)</td>
<td>Improve access to rural areas and economically productive areas</td>
<td>Enhance road sector planning, management and road safety management</td>
<td></td>
</tr>
</tbody>
</table>

1.2 Although infrastructure sustainability is not an explicit objective, it permeates the evaluation both through the discussions concerning appropriate institutions and financing mechanisms, as well as the adequacy of maintenance and management capacity. Only one PDO is directly connected with privatization—that is, the improvement of the operation of
the Tanzania Railway Company (TRC), which was offered as a concession. Nonetheless, the transport policies of both Governments propose a move towards more private sector involvement in the transport sector over time and in Tanzania concessions have been considered in all sub-sectors except roads. The preferred approach for roads in both countries has rather been to increase private sector’s role in the management of the road sub-sector.

1.3 In both countries the Road Agency/Road Fund model promoted by the Sub-Saharan Africa Transport Policy Program (SSATP) was pursued because it had showed promising results in several cases in Africa. Road Agencies are autonomous road management entities independent from line ministries, and Road Funds are an independent source of funding for road maintenance based on road-user charges. This direction was generally supported by the other donors involved in the road development programs and the Bank took a leading role in encouraging and assisting implementation.

1.4 The two Tanzanian projects evaluated in this PPAR are the Second Integrated Roads Project [IRPII], Credit 2598-TA and the follow-on (First) Central Transport Corridor Project [CTCP1], Credit 3888-TA). The three projects in Uganda comprise the Road Sector Institutional Support Technical Assistance Project, (RSISTAP), Credit 2987-UG—which supported the First and Second Phases of the Roads Development [RDP-1 and 2] financed through Adaptable Program Loans (APL), Credit 3267-UG, and Credit 3544-UG respectively, which were also two phases of an APL.

1.5 All these projects were consistent with the World Bank Infrastructure Action Plan adopted in 20031 and the follow-on World Bank Group Sustainable Infrastructure Action Plan (2009-2011),2 both of which called for renewed commitment and financial support to improve sustainable infrastructure service delivery. The strategy adopted was to use financing, leverage, and policy advice to strengthen sector policies and institutions to improve the efficiency, affordability, quality, and reach of basic infrastructure services.

1.6 The projects evaluated are located in Tanzania and Uganda, two adjacent East African nations with economies among the lowest ten percent globally in terms of per capita income,3 and with extensive rural populations reliant to a large extent on subsistence agriculture and small scale farming. According to United Nations estimates,4 Uganda in 2010 had an estimated population of 31.6 million and Tanzania of 37.3 million. These populations are growing at the rate of 3.3 percent per year in Uganda and 2.9 percent in Tanzania, while the urban growth rates are 4.4 and 4.2 percent respectively. In both countries a substantial proportion of the population lives below the poverty line.5 In land area, Uganda covers 241,000 square km (about the size of the United Kingdom) and Tanzania at 943,000 square km, is nearly four times larger.

1.7 Uganda’s main export crop is coffee and it has substantial natural resources in the form of fertile soils and regular rainfall. The country also has small deposits of copper and

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3 World Bank data, 2009; Tanzania $1,362 per capita; Uganda $1,217 per capita
4 www.data.un.org
5 World Bank data; Tanzania 88 percent (2009); Uganda 55 percent (2009)
gold, and proven oil discoveries have recently been announced with reserves currently estimated at two million barrels. Uganda is a landlocked country and this adds to the cost of its trading activities. In Tanzania a quarter of the GDP is accounted for by agriculture as well as 85 percent of exports, but topography and climate limit the extent of cultivable land to four percent of the land area. Agro-processing and tourism make important contributions to Tanzania’s GDP. Both countries have enjoyed steady economic growth over the past 15 years or so, but from a very low base. This growth trend faltered only slightly in 2009-10 due to the impact of the global financial crisis.

1.8 Tanzania’s road sector and institutions are more developed than Uganda’s and some lessons have emerged highlighted in this report that will be useful to the East African region and, indeed, to other African countries. Conversely, Uganda has become more involved in road safety, while its innovative pilot project for using alternative construction materials for low volume roads will provide valuable learning for neighboring countries. The idea is to use alternative local materials in road construction in areas where suitable materials are not readily available and have to be hauled in at high cost.

1.9 This overview summarizes the evaluation of the five projects and focuses on common issues, themes, solutions and lessons learned. It first reviews progress with accessibility, stimulating economic development and achieving sustainability in chapter two. Chapter three covers the effectiveness of the reform process including regulatory reform, the creation of Road Agencies and Road Funds, road safety, and enlisting the services of the private sector. Chapter four pulls together the findings and lessons.

2. Improving Accessibility, Stimulating Economic Development and Achieving Sustainability

Accessibility in Context

2.1 Improving rural accessibility, and stimulating economic development, is an objective in all five projects reviewed in this report. The level of access, however, needs to be appropriate to the circumstances, and accomplished in an economically justifiable manner.

2.2 Road infrastructure in both Tanzania and Uganda carries about 95 percent of all passenger and freight transport movements. Tanzania’s road network consists of 33,000 km of trunk and regional roads, and 58,000 km of district, urban and feeder roads. Trunk roads, of which 40 percent are paved, and regional roads, are the responsibility of the Tanzania National Roads Agency (TANROADS). In Tanzania 87.5 percent of the main roads are in good condition (2009), but a significant proportion of the access road network remains in fair to poor condition, although there has been a gradual improvement as more funds have been made available following the establishment of the Road Fund (see also paragraph 3.5).6

2.3 Urban roads, however, require a special intervention and IDA’s Strategic Cities Project aims to provide US$130 million for the construction of 135 km of urban roads in seven regional cities. A follow-up project exclusively for Dar es Salaam is also envisaged.

6 Road Fund, Corporate Information, August, 2010
The cities, though, will need to develop their own tax base to finance such developments in due course. Under the Second Central Transport Corridor Project (CTCP2) a first phase rapid bus transport project is under implementation.

2.4 Uganda’s road infrastructure comprised until recently (2009) of 10,800 km of national roads, 27,500 km of district roads, 4,800 km of urban roads, and approximately 25,000 km of community access roads. National roads, of which 32 percent are paved, are the responsibility of the central government, and managed through the recently established Uganda National Roads Authority (UNRA). Uganda’s national roads also serve as transit corridors linking the land-locked neighboring countries of Rwanda, Burundi, South Sudan and parts of the eastern Democratic Republic of Congo (DRC) to the Indian Ocean ports of Mombasa in Kenya and Dar es Salaam in Tanzania. In July 2009, an additional 10,000 km of district roads were transferred to UNRA re-designated as national roads. Currently, the condition of these roads is still being assessed, but conservatively at least 60 percent are likely in poor condition. Urban roads are located within the boundaries of urban councils and are under the responsibility of urban local governments. Again, however, a recent decision by the Government of Uganda (GoU) has made UNRA responsible for improving roads in the capital city, Kampala, without additional resources. District roads provide access from rural areas to markets, health centers, educational institutions, administrative centers and other services, and remain the responsibility of the district governments.

2.5 Although Uganda’s road infrastructure is insufficiently developed, its trunk road network as defined in 2009, has reached a more mature state whereby about 70 percent of national roads are now in good to fair condition. Since then, a process has commenced to prioritize the upgrading of the feeder roads. The major proportion of the access road network, however, remains in poor condition. Such poor conditions also apply to the urban areas including the metropolitan area around Kampala. Here, special interventions primarily from the World Bank and the GoU have been the only additional source of funding until recently. With the establishment of UNRA and the Road Fund this situation is expected to improve, provided that fuel levies and other fees are sufficient and can be paid directly into the fund—legislation is currently pending on this matter. The initial priority is maintenance, but Government appropriations for rehabilitation and new construction have also increased. As in Dar es Salaam, the Bank is assisting with the preparation of a bus rapid transit project in Kampala. The concept of this improvement was based on a study done as part of RDP 2 and will relieve traffic congestion on roads for which UNRA is now responsible. Uganda is gradually improving its road links with its neighbors, but this is still work in progress. As shown in Box 1, the frustration by users of bad roads in the rainy season is evident.

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7 PAD, Strategic Cities Project, Report 51881-TZ, April, 2010
8 i.e. before the decision to extend the network
Box 1. Poor Roads Affect Traders in Northern Uganda November 3, 2010

Over 400 trucks transporting livestock, fruit, vegetables and their traders from Uganda to Juba in South Sudan have become stuck in thick mud at Aytok, 35 km south of the northern border crossing at Nimule. Some have been stranded for over a week. A police officer at the scene noted that on Sunday over 100 trucks were pulled free, but now there are more than 400 fresh ones to be cleared and hundreds more (mainly empty) travelling in the other direction.

We are using an UNRA wheel loader to pull the trucks from the mud and hope to clear all the trucks in three days, provided it doesn’t rain again, he said.

The traders and owners complained that they pay lots of taxes to the Ugandan and Sudanese governments at the border crossings, yet the roads are in poor condition and there is no compensation for their losses.

Source: “New Vision” Uganda, November 3, 2010

2.6 In a comparison of seven countries in the East Africa region (see Table 1) for which statistics are available, both Tanzania and Uganda lag in terms of the percentage of their road networks that are paved. Tanzania is last in this group when paved roads are expressed as a percentage of land area, and third to last when expressed as a percentage of population. Uganda, being a more compact country, fares better in terms of paved roads as a percentage of land area, but with its high population ranks worst when its paved roads are expressed as a percentage of the population. Clearly, improving accessibility further through road upgrading is substantially relevant in both countries.

Table 2. Some Comparisons of Road Density in East Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Est.2010 Population (millions)</th>
<th>Land Area (000 km²)</th>
<th>Total Road Network (km)</th>
<th>% Paved</th>
<th>Pop. Per km of paved road</th>
<th>Land area per km of paved road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td>15.6</td>
<td>94</td>
<td>15,451</td>
<td>26.1</td>
<td>3,868</td>
<td>23</td>
</tr>
<tr>
<td>Mozambique</td>
<td>22.4</td>
<td>799</td>
<td>37,349</td>
<td>16.9</td>
<td>3,549</td>
<td>127</td>
</tr>
<tr>
<td>Kenya</td>
<td>38.6</td>
<td>580</td>
<td>63,942</td>
<td>12.1</td>
<td>4,989</td>
<td>75</td>
</tr>
<tr>
<td>Rwanda</td>
<td>10.4</td>
<td>25</td>
<td>14,008</td>
<td>8.3</td>
<td>8,942</td>
<td>22</td>
</tr>
<tr>
<td>Tanzania</td>
<td>43.1</td>
<td>882</td>
<td>91,049</td>
<td>7.3</td>
<td>6,470</td>
<td>132</td>
</tr>
<tr>
<td>Uganda</td>
<td>31.8</td>
<td>197</td>
<td>68,100</td>
<td>5.1</td>
<td>9,217</td>
<td>57</td>
</tr>
</tbody>
</table>

Sources: IMF, IRF, UNRA, TANROADS, UN and World Bank

Improving Accessibility – Intentions and Outcomes

2.7 The Second Integrated Road Project in Tanzania suffered significant delays. The project nonetheless led to the upgrading of the Kilimanjaro International Airport runway to accommodate increased tourist traffic arriving by air (see Table 1). It also led to the reduction of road user costs and improved road transport services through upgrading two key roads, namely the rehabilitation of the 47 km of paved road from Magogo to Mwanza, and the

9 IDA disbursements were halted by the Bank for a period of four years while an investigation concerning serious implementation capacity issues and governance problems was carried out. In 1998 the credit was restructured and the closing date extended to partially allow for the loss of implementation time.
urgently needed rehabilitation of the Mkoani-Chake Chake road on Pemba Island, Zanzibar. Since the former was part of the Central Transport Corridor route leading from Tanzania to Rwanda, Burundi, DRC, and Uganda, it was economically of considerable importance and a two hour journey time saving was achieved through its improvement. But the full value of the investment was not realized because the last link in the corridor, from Singida to Shelui of 110 km, which should also have been completed under this project, did not get beyond bid document stage. The construction thus had to wait for the CTCP1 project. The Pemba road is the spinal road, which supports the island’s local commerce and tourism.

2.8 The CTCP1 project finally enabled completion of the Singida-Shelui section of the Central Corridor road, thus completing the bitumen surfacing of the entire route from Dar es Salaam to Central Africa. By mid-2010, the traffic on the corridor road section had more than doubled. This was well over the growth target of ten percent per annum estimated for 2009, and from this point of view was an evident success, although there were other problems (see paragraph 3.13, Box 2). Time savings averaging 87 minutes per vehicle were recorded in the economic analysis done at project completion. Aggregate savings were US$86.5 million.

2.9 On the island of Zanzibar three sections of road were improved. These were aimed at improving access to over 70 of the main hotel and resort sites and in some cases have more than halved the time taken to convey tourists from the airport, resulting in a time saving of an hour or more per journey. Aggregate savings in time and vehicle operating costs were US$44.6 million. Sharp increases in traffic volumes were reported to the IEG mission and the trend is continuing according to data provided by the Ministry of Communications and Transport (MoCT) Zanzibar. The tourism industry is the main source of employment on the island.

2.10 In addition, strategic links were enhanced through the successful rehabilitation of three existing ferries and the procurement of two new ones at key river crossings. Figures provided to the IEG mission for two rehabilitated ferries, (one large and one small), show an increase in usage by adult passengers of between 40 and 50 percent (see Table B1 in Annex B). The ferries are regarded by the Government of Tanzania (GoT) as part of the connectivity of the road system.

2.11 Meanwhile, the Government of Uganda had also been improving its road system through Road Sector Development Programs (RSDPs) from 1996 through 2011. The Bank supported these RSDPs through a phased APL program with the first two phases evaluated in this PPAR.

2.12 Under the first Road Development Program, RDP 1, (1999-2008) the main upgrading target (to bituminous standards) was exceeded. By adding the rehabilitation of the 166 km Kawempe-Kafu road, the project delivered 441 km of improved roads against 275 km planned at appraisal. With these improvements, the project succeeded in reducing travel time for the Busunju-Hoima road from seven hours at a speed of 21km/hour in 1999 to the target of three and a half hours at a speed of 50 km/hour for a bus, including passenger stops, in 2008. Similarly for the Pakwach-Arua road travel time was reduced from five hours at a speed of 26 km/hour in 1999 to a target of two and a half hours at a speed of 50 km/hour in 2006. On these improved roads, the vehicle operating costs reduced for a typical bus from US$0.35/vehicle-km in 2002 to US$0.22/vehicle-km in 2006. The IEG mission inspected the
Busunju-Hoima road and found it to be well-used by buses and taxis and in good visual condition; this was supported by favorable roughness measurements results and traffic counts conducted for UNRA in October 2010. There was also evidence of ribbon development consisting of new dwellings and trading stores along the roadside and substantially increased movements of passengers to and from villages in the area to the markets in Kampala.

2.13 Under RDP 2, the objective of improving accesses to rural and economically productive areas with market towns through upgrading selected priority road links was highly achieved by improving 271 kilometers of primary roads. The 108 km Karuma-Oliwayo-Pakwach gravel road was upgraded to paved (bitumen) standard and 163 km of roads were strengthened including Katunguru-Fort Portal, Kasese-Mpondwe and Kasese-Kilembe. The Pakwach road also improved the connection to South Sudan and the other roads the link to the DRC. These eastern area roads served villages with good agricultural potential by improving access to and from the nearest markets. Traffic volumes on these roads increased over the baseline figures by more than 500 percent on average, exceeding the target of a 200 percent increase in traffic volume (which was likely a significant underestimation). The average travel time fell by between 48 and 68 percent. This exceeded the target of 30 percent, and vehicle operating cost decreased by 36 percent, exceeding the target of 20 percent.

2.14 The project improved the accessibility to the Queen Elizabeth National Park which has, according to the Uganda Wildlife Authority, experienced an increase of about 15 percent in the number of visitors since 2009. While this increase may not wholly be attributable to the improved roads, IEG considers this is likely to be the main factor from discussions with officials and tour operators.

2.15 Uganda launched a pilot project to test the introduction of innovative technologies for the construction of low volume roads. This innovative low volume road design demonstration project is a 41 km road contract North West of Kampala which commenced under RDP-2 using a Nordic Development Fund (NDF) grant. The works comprise the upgrading of a gravel road to a class three bitumen road; along the route are 16 trial research sections to test different pavement materials. This is particularly important to Uganda since there are several areas of low-lying marshy terrain where conventional materials are not always readily available. At the closure of RDP-2 only US$1.18 million had been expended, because the bids for the work were higher than anticipated and the NDF had insufficient funds. However, the work has continued subsequently and IEG believes the results will be important to the broader region.10

2.16 In both countries there has been an improvement in accessibility due mainly to the expansion of the portion of the trunk road system in good condition. These improvements, confirmed in discussions between the IEG mission, road users and representatives of Chambers of Commerce and Industry, have supported small farmers and businessmen by

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10 Since that time the works have proceeded with funding split between NDF (35 percent) and GoU (65 percent). Completion was scheduled for end 2010 and the trial sections will be scientifically monitored over a six year period by students from Kampala University, after which guidelines will be produced. The IEG mission visited the site and considers this to be important work for the future sustainability of low volume district roads. Experience with the wear and tear properties of different materials will be of value in future design and should lead to future cost savings. For example, conventionally used Portland cement was being compared with cement made from local volcanic material, which has lower transportation costs.
improving access to markets. Public transport has also benefitted and more convenient, faster and frequent services are offered to rural people. However, in comparison to other countries in the region there are still insufficient paved roads overall which impacts negatively on their economies. Urban and District Roads are also critically underinvested. Bank support in both preparation and supervision has been strong throughout.

**Sustainability**

2.17 Sustainability remains an issue in all the projects reviewed, but has clearly improved in the road sub-sector with the advent of Road Agencies and Road Funds (described in detail in chapter 3). In the earlier projects in the 1990s there were, however, serious concerns. A rural pilot Village Travel and Transport Program (VTTP) was a component of Tanzania’s IRP-II, and included community maintenance of 550 km of rural roads, 23 bridges, and 547 km of new footpaths along with the promotion of non-motorized transport. However, a sustainable funding framework to replicate the pilot elsewhere was lacking. IEG’s discussions revealed that the pilot was accepted locally, but that there was opposition by some officials to the sub-project’s unconventional approach, especially since there were insufficient funds for conventional road maintenance needs which in their view deserved a higher priority.

2.18 The large component in IRP-II to reduce the backlog of road maintenance through 2,215 km of rehabilitation, upgrading, periodic maintenance and spot improvements was, after restructuring, in effect replaced by emergency work to restore flood damaged roads, culverts, and bridges after El-Nino-induced severe flooding in mainland Tanzania and on Zanzibar Island. Dropping the rehabilitation component was, however, to have negative consequences for sustainability. The 1994 baseline figures for trunk and regional roads in poor condition were 38 percent and 58 percent respectively. These were to be improved to 19 percent and 40 percent by 2000, but this target was unachievable before the credit closed in June 2004. The PAD for the CTCP1 project indicates this deterioration continued and that by February 2004 some 44 percent of the trunk roads were in poor condition and 51 percent of regional roads.11

2.19 Following the introduction of Road Agencies and Road Funds road conditions in both Tanzania and Uganda steadily improved and although maintenance issues still exist, considerably more funding has been allocated to maintenance and the quality of road works has improved. In Tanzania funding for road maintenance improved from 44 percent of needs in 2007 to 70 percent in 2009, while in Uganda special appropriations from Government were provided for maintenance pending the introduction of a road fund levy.12 The quality of road works according to some stakeholders has improved.13

2.20 Many of the staff that moved to the new autonomous agencies in Tanzania and Uganda came from former government departments or transitional entities. However, selection criteria have been strict and the new personnel are employed on performance-based contracts. It is now also possible to remunerate professionals at more market-related rates.

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12 Road Fund Board Corporate Information, August, 2010
13 Based on discussions with other donors, training organizations and consultants
This should over time lead to better productivity. TANROADS in particular has demonstrated greater capability in recent years to manage large road programs successfully. Nevertheless, both TANROADS and MoID were criticized in a recent government audit report for inadequate designs leading to cost overruns and for frequent extensions of time granted to contractors in road projects.\textsuperscript{14} For CTCT1 procurement and financial management were carried out fully in accordance with Bank procedures, with some guidance from the Bank’s financial specialists.\textsuperscript{15}

2.21 Although the reform process has been much slower in Uganda, progress is recorded for the Uganda RDP projects, culminating in the establishment of UNRA. While UNRA is a much newer organization than TANROADS, it has had difficulties recruiting staff to fill some key technical posts. This has partly been compensated for by hiring consultants, but is not a long term solution. Since UNRA still had 46 unfilled posts at the time of the IEG mission,\textsuperscript{16} this should be seen as a potential red flag. Nonetheless, inspection of audit reports reveals that there is an improvement in the quality of road surface treatments and fewer contract cost overruns. It remains to be seen whether Ministry of Works and Transport (MOWT) has sufficient capacity to support fully its policy formulation and oversight function. With the support of a Public Private Infrastructure Advisory Facility, MOWT carried out a study aimed at outsourcing MOWT’s regulatory function to a Multi-Sectoral Transport Regulatory Authority (MTRA). Although the Bank originally anticipated MTRA’s establishment in 2009, it is unlikely to become operational before 2013.\textsuperscript{17}

2.22 Since the completion of CTCP1, the main risk in Tanzania is the rapid deterioration of the improved road condition of portions of the Central Transport Corridor. Road haulage on the corridor now carries most of the freight traffic in the region. This is in no small measure due to the poor and declining performance of the competing railway, and has led to substantially higher than anticipated road traffic volumes that are wearing out the road more quickly than expected, leading to a shorter life span and higher road maintenance costs. This is likely exacerbated by truck overloading, although TANROADS has increased the number of weigh-bridge stations on the paved trunk roads.\textsuperscript{18} Despite the increased revenue to the Road Fund (there was a 100 percent increase in 2007-08), only two thirds of maintenance needs are currently covered, the remaining third is largely a backlog of periodic maintenance.

2.23 Before the roads were improved, the railways provided transport for many small customers who had no viable alternative. Typically this kind of traffic is not profitable for railway companies, which need to concentrate on bulk, large-volume, and long distance customers. The Government, based on previously documented experiences on competition in African transport corridors, needs to devise a more balanced strategy to better control and charge appropriate fees for heavy trucks to ensure provision of sufficient funds to cover road maintenance needs.\textsuperscript{19} Road and railway investments can and do affect each other and it is the role of central government to address such policy issues. The decision to separate road and

\textsuperscript{14} Audit Report on road works: National Audit Office, March 2010
\textsuperscript{15} World Bank, Central Transport Corridor Project, Report 1299, June 2010, page 14
\textsuperscript{16} UNRA Business Plan 2009/10, page 3
\textsuperscript{17} PAD, Transport Sector Development Project, Report 50977-UG, November, 2009, page 22
\textsuperscript{18} Many trucks travel late at night when the weigh-bridge stations are often closed
rail into two separate ministries announced after the elections in November, 2010 will likely make this task more challenging.\(^{20}\)

2.24 As far as local government roads are concerned, total funding in 2008/09 was US$55 million of which 78 percent was spent on maintenance and the balance on development, but these amounts together translate to just US$971 per km.\(^{21}\) GoT indicates that it wants to increase the budget for its Local Government Transport Program progressively to US$80 million a year, but is mindful of the limited absorptive capacity of local government. IEG noted that by 2009/10 the budget had reached US$60 million. The higher maintenance and rehabilitation needs of urban roads needs are to be partly met through the Bank supported Strategic Cities Project and CTCP2 currently in implementation. Rapid urban growth has led to serious traffic congestion in Dar es Salaam and smaller cities such as Arusha, Mwanza and Mbeya. The strategy to tackle this issue involves combining traffic management measures with the promotion of public transport and the improvement of the capacity to manage urban transport supported by local taxation. This is work-in-progress.

2.25 In Uganda, one of the challenges facing UNRA because of its still insufficient capacity is ironically the large increase of funding in the sector for roads and maintenance starting in 2008/09 with the establishment of the Road Authority and Road Fund.\(^{22}\) This funding thus far has been from Government appropriation, but it is intended that a levy on fuel will be the main source of income.

### 3. Reforming Transport Sector Policy

3.1 The basic principles guiding the formulation of transport sector policy supported by the projects are similar for both Tanzania and Uganda:

- Definition of the role of Government in terms of formulating policy and providing a regulatory framework to facilitate the efficient and safe provision of transport services by autonomous agencies, private sector providers and concessionaires;
- Enhancement of the capacity of the domestic contracting and consulting industry (leading to improved efficiency) through promotion of private sector participation in the implementation of infrastructure works and complementary government initiatives;
- Active participation in the provision of technically sound, economically justifiable and financially sustainable transport infrastructure, with priority being given to the preservation and maintenance of existing infrastructure.

#### Regulatory Reform

3.2 During the nineties the ambitious integrated roads program in Tanzania had been too complex and unrealistic about its expectations of the implementing agencies in the Government ministries, which were unable to increase their capacity to keep pace with the

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\(^{20}\) The Ministry of Infrastructure Development has been split into two ministries: Works (responsible for roads and airports) and Transport (responsible for railways and ports).


\(^{22}\) PAD, Transport Sector Development Project Report 50977-UG, November, 2009
expansion of the program. Encouraged by an environment of poor governance, serious mismanagement and corruption ensued. By 1995 there were serious governance issues and widespread mismanagement and fraud became evident. The Bank consequently suspended procurement activities, resulting in a four year loss in implementation time for IRP-II. The Government established a broader enquiry under Judge Warioba leading to a report on the state of corruption in Tanzania. The findings had significant repercussions in the transport sector because the report indicted officers in the Ministry of Works, Communications and Transport (MOWCT) for taking bribes to award tenders, as well as inflating contracts, and concealing poor performance by contractors. The Bank also conducted a separate investigation into the shortcomings of its own procedures. These events convinced the Bank, the GoT, and its other development partners, to ensure that the Joint Assistance Strategy for the country would focus more strongly on support for policy and institutional reforms, since the previous approach was clearly not working satisfactorily.

3.3 Tanzania has subsequently been reforming the transport sector fundamentally. Over the last ten years it has achieved improvements in efficiency through delegating the regulatory and executive functions to semi-autonomous, performance-based authorities and agencies: in roads to the Road Fund, 1998, and TANROADS, 2000; in ports to the Tanzanian Ports Authority (TPA), 2005, and the Surface and Marine Transport Regulatory Authority (SUMATRA), 2004; in aviation to the Tanzania Airports Agency (TAA), 1999, and the Tanzania Civil Aviation Authority (TCAA), 2003. It has also awarded concessions for the operations of transport entities to the private sector, although with mixed success. Meanwhile, the restructured Ministry of Infrastructure Development (MoID) retains responsibility for policy setting and sector oversight.

3.4 Reform in Uganda has moved at a much slower pace. There is little privatization of transport entities to date, but the route to create an autonomous Road Agency and Road Fund has also been followed. The reduced urgency may have been in part due to the formation of an interim transitional agency bridging the gap between Government Department and the establishment of a fully autonomous institution. There were delays in the Government decision-making process, and capacity was generally weaker than experienced in Tanzania. Thus while Tanzania has already celebrated the ten year anniversary of its Road Agency, Uganda’s Road Authority is only two years old.

**Autonomous Road Agencies and Road Funds**

3.5 Prior to the road reform process in Tanzania and Uganda, as in most countries in sub-Saharan Africa, roads were not managed according to market principles and their provision was seen as a social service. Road maintenance expenditure from general revenues was often among the first items to be cut during difficult periods of financial constraint. This was in part because road deterioration over the first two-thirds of design life is usually slow and

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23 The Report of the Presidential Commission of Inquiry Against Corruption (the Warioba Report), 1996
24 Responsibility for Works has undergone several ministerial name changes; The Ministry of Works, Transport and Communications; Ministry of Works and subsequently Ministry of Infrastructure Development. After the elections in 2010 it was again split into two separate ministries with Works covering roads and aviation and Transport covering rail and maritime oversight.
27 TANROADS: Tenth anniversary publication, Sept. 2010, page 13
28 Road Fund Board, Corporate Information, August, 2010, page 7
29 Road Fund Board, Corporate Information, August, 2010, page 22
30 Africa Infrastructure Country Diagnostic: Tanzania Country Report. Page 14, March 2010. The criteria are a clear legal basis defining the separation of functions, establishment of road user charges, direct transfer of revenues to the fund, user representation on the road fund board, clear revenue allocation rules, independent auditing, and public reporting of road fund activities.
road user charges, the percentage of coverage of routine and periodic maintenance and the percentage of annual disbursed funds compared to budget.\textsuperscript{31}

3.8 In Uganda the establishment of a Road Agency Formation Unit (RAFU) in 1998 as a transitional arrangement, preceded the establishment of an agency in the form of the UNRA. A Bank-funded study also identified road user charges that could be applied to road maintenance. RAFU was to have been established by 1999 and operational by 2000. An independent Road Agency was then to be established to replace RAFU by 2002.\textsuperscript{32} In the event, it was not until May 2006 that this was enacted by parliament. UNRA only began operations in 2008 and the Road Fund two years later. This was an arduous process that took over ten years to complete and was fraught with difficulties in finding sufficient qualified and experienced staff. However, UNRA is now operational and, because the authority is performance-based and its results monitored, it is already proving more efficient than RAFU, its predecessor, at procurement and contract management according to Bank financial specialists contacted by IEG.

3.9 Although UNRA is now fully operational and the Uganda Road Fund was established by Act of Parliament in August 2008, the Road Fund only commenced operations in January 2010. While it was intended that the income to the fund would be raised from road user charges, primarily through a levy on fuel, this has yet to take place. Initial appropriations had to be provided from the Government’s consolidated fund. It will only be possible to implement a fuel levy if the Uganda Revenue Authority Act is first amended. This necessity should have been identified earlier, and there is still some uncertainty regarding the way ahead. Policy reversals are always possible and it was evident in a parliamentary debate on transport financing in March, 2010\textsuperscript{33} that there is still some opposition to the concept of both UNRA, and the Road Fund. A point made in the debate was that although new authorities are being created they still lack capacity. Since UNRA had 46 unfilled posts at the time of the IEG mission,\textsuperscript{34} this argument has substance, especially given that there are also (Bank supported) plans for several new authorities covering road safety, multi sector regulation, district and community roads, and public transportation in the Kampala Metropolitan Area.

3.10 In both countries the Bank has supported the gradual move for roads to be managed not by Government, but by autonomous Road Agencies, and funded by Road Funds. The pace of reform in Tanzania has been faster than in Uganda and the Road Agency framework is considered best practice by SSATP. Force account has been scaled down considerably and there is more accountability and transparency in the way the organization is managed. The authorities are able to successfully manage larger programs than under Government Departments, but lack of capacity, though better, is still an issue.

\textbf{Improving Road Safety}

3.11 Road safety features as components in the Ugandan projects reviewed, but were, until recently, distinctly lower key in Tanzania. Road deaths, however, are steadily increasing in

\textsuperscript{31} Road Fund Board, Corporate Information, August, 2010, page 27
\textsuperscript{32} PAD Road Development Program Phase 1 Report 18793-UG, June 1999, page 11
\textsuperscript{33} www.parliament.go.ug/hansard\url{Transport\:debat\:March\:23,2010}
\textsuperscript{34} UNRA Business Plan 2009/10, page 3
both countries. Africa has a poor road safety record in comparison to the rest of the world and the East Africa region does not compare well to the rest of Africa. Uganda fares slightly better than the Africa average and Tanzania slightly worse (see Table 3, Table 4, and Table 5 below). Safety measures in the Bank-financed projects in this PPAR encompass engineering design improvements in both countries and, in Uganda, retrofitted solutions for accident black spots. Other assistance has included limited supplies of equipment to the Ugandan Police and support for institutional reform. However, addressing other road safety measures such as general education, emergency service responsiveness improvements, and better law enforcement, are at a less mature stage. The World Health Organization in its country profiles (2009) indicates that enforcement of laws regarding driving under the influence of alcohol, wearing of seat belts, and wearing of crash helmets is poor in both countries.

### Table 3. East Africa: Road Deaths per 100,000 People 2009

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated Road Deaths per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudan</td>
<td>34.7</td>
</tr>
<tr>
<td>Kenya</td>
<td>34.4</td>
</tr>
<tr>
<td>Tanzania</td>
<td>34.3</td>
</tr>
<tr>
<td>DRC</td>
<td>32.2</td>
</tr>
<tr>
<td>Rwanda</td>
<td>31.6</td>
</tr>
<tr>
<td>Uganda</td>
<td>24.7</td>
</tr>
<tr>
<td>Burundi</td>
<td>23.4</td>
</tr>
<tr>
<td>Africa Average</td>
<td>32.2</td>
</tr>
<tr>
<td>Global Average</td>
<td>18.8</td>
</tr>
</tbody>
</table>

*Source: Global Status Report on Road Safety World Health Organization, Geneva, 2009*

3.12 In the early years of Bank support, when the Tanzanian IRP-II had to be restructured, comparatively little attention was given to road safety. The higher speeds that became possible on improved roads, however, led to increased frequency and severity of road accidents. In the short term, the problem was addressed by introducing rumble strips and speed humps where the roads passed through villages and towns. Under CTCP1, provision was made for a Road Safety Master plan covering mainland Tanzania and Zanzibar. The study recommended institutional reforms, but follow-up was initially slow.

### Table 4. Tanzania road crashes and casualties

<table>
<thead>
<tr>
<th>Year</th>
<th>No. Accidents</th>
<th>No. injured</th>
<th>No. fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>13,767</td>
<td>12,625</td>
<td>1,663</td>
</tr>
<tr>
<td>2008</td>
<td>20,615</td>
<td>17,861</td>
<td>2,905</td>
</tr>
<tr>
<td>2009</td>
<td>22,739</td>
<td>19,263</td>
<td>3,204</td>
</tr>
<tr>
<td>1995</td>
<td>13,767</td>
<td>12,625</td>
<td>1,663</td>
</tr>
</tbody>
</table>

*Source: Tanzania Traffic Police; data is for mainland Tanzania excluding Zanzibar*
Table 5. Uganda Road Crashes and Casualties

<table>
<thead>
<tr>
<th>Year</th>
<th>No. Accidents</th>
<th>No. Injured</th>
<th>No. Fatalities</th>
<th>Ave. Ann. % increase of fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>5,674</td>
<td>3,460</td>
<td>778</td>
<td>———</td>
</tr>
<tr>
<td>1995</td>
<td>11,638</td>
<td>7,693</td>
<td>1,538</td>
<td>10.0</td>
</tr>
<tr>
<td>2000</td>
<td>14,384</td>
<td>10,213</td>
<td>1,678</td>
<td>1.0</td>
</tr>
<tr>
<td>2005</td>
<td>19,783</td>
<td>12,275</td>
<td>2,034</td>
<td>3.5</td>
</tr>
<tr>
<td>2006</td>
<td>18,092</td>
<td>12,158</td>
<td>2,172</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Source: Annual Traffic and Road Safety Reports, Uganda Police

3.13 The urgency to make greater progress is indicated by the high number of crashes, especially those involving buses. For example, the unintended accident “black spot” created at the foot of the Sekenke escarpment between Singida and Shelui, (financed by the Bank under CTCP1) is a good example. See Box 2.

Box 2. Unintended Consequences in the Singida District, Tanzania

The escarpment is steep and heavy vehicles sometimes fail to engage low gears or travel too fast resulting in severe accidents at the bridge at the bottom of the descent (Sekenke Bridge 1). The IEG mission noted that the railings and crash barriers were completely missing where such accidents kept occurring. Local police records examined by IEG showed that 49 fatalities and 62 injuries had occurred at this location since the road was completed in 2008. Forty of these casualties occurred in a single bus accident.

The police regularly check the condition of vehicles before they begin to descend and TANROADS has installed warning signs, rumble strips and speed humps with the intention of slowing down the traffic. As part of the works, the contractor constructed sand trap escape lanes for runaway vehicles. When IEG visited the site two vehicles were being extracted from these traps indicating that there is still an ongoing problem with trucks driving too fast. Deeper investigation of this problem is necessary. It needs to be established whether the incidence of accidents has decreased since the remedial measures were introduced, and what further actions may need to be taken. For example, it may be necessary to force trucks to come to a complete stop before beginning the descent.35

3.14 Only under the recent Transport Support Project (approved May, 2010) has there been an actual road safety component (US$6 million) in Tanzania. The National Road Safety Policy, which was finally approved in February, 2009, proposes the establishment of a National Road Safety Agency, a Road Accident Information System and a Driver and Vehicle Examination and Licensing Agency. The Ministry of Infrastructure Development (MoID) now has responsibility for road safety in its new Division of Safety and Environment.

35 It may be possible to examine further countermeasures in the currently active Transport Sector Support Project (P055120) PAD Report No 53152-TZ, May, 2010 which has a road safety component.
3.15 In the Uganda RDP-2 and the institutional support technical assistance project there were components involving road safety. RDP-2 involved the design and construction of safety improvements at accident black spots along the existing roads from Kampala to Jinja (twelve locations) and Kampala to Entebbe (four locations). The planned improvements on the Jinja road were carried out, but the four on the Entebbe road had to be cancelled to avoid conflict with urgent road rescaling activities ahead of the Commonwealth Heads of Government Meeting. IEG visited some of the black spot improvement sites and concurs with the implementing agency view that the project has likely contributed to a reduction in the number of road accidents and related fatalities on the Jinja road. This cannot, however, be definitively concluded since „before and after” figures were unavailable, and, discussions with the police revealed only anecdotal evidence. This highlights the importance of retaining records and monitoring both before and after project completion.

3.16 A three-day training session for twenty RAFU, MOWCT and Kampala City Council staff in road safety auditing was conducted and several publications were developed and distributed as part of the National Road Safety Action Plan, notably sections of the engineering design manual, including safety at road works, traffic signs and road markings; curricula for driving instructors and driving schools; trauma care training manuals for the Ministry of Health; accident report forms for the Uganda Police; and a Road Safety Audit Manual. Additionally, police enforcement equipment (including first aid kits, speed measuring instruments and breathalyzers) was procured. A traffic highway patrol unit was established and trained, but given the huge needs of traffic law enforcement the impact was mainly demonstrative of what could be achieved in the future with more resources.

3.17 Under the ongoing Uganda Transport Sector Development Project, there is a further component on enhanced road safety (IDA US$3.5 million; DFID US$1.0 million). This covers the preparation of a draft road safety policy and strategy and a draft law for the creation of a National Road Safety Authority (NSRA). The intention is to have NSRA operational at the beginning of FY2011/12, although this may be optimistic based on previous experience. NRSA is to be funded from the Road Fund and the provision is also made for a police crash data base.

3.18 In summary, road safety remains relatively neglected in both countries, although the Bank has helped to facilitate the creation of National Road Safety Councils, which should give the needed focus in the way ahead. Although the road accident and fatality rates are close to the Africa average, this is little comfort since that is nearly twice as bad as the global average. Bank bears a special responsibility for the roads it funds, since new roads can be travelled at higher speeds and the severity of accidents can be greater. This emphasizes the success with simple measures to reduce speed such as rumble strips in villages along the route. Although in Uganda there was a black spot elimination program on existing roads, the tendency today is to design rehabilitated roads so that dangerous locations are eliminated at the outset.

**Enlisting the Private Sector**

3.19 The policy of both Governments was, and remains, to encourage more private sector involvement in the transport sector over time. In Tanzania, private sector involvement in the
road sub-sector is strong: most civil works for roads and all maintenance works are now executed by private sector contractors, while practically all road transport services are also operated privately. There have also been experiments in public private partnerships, with mixed results, in the other sub-sectors. Uganda has been moving at a slower pace.

**Promoting the Development of the Local Construction Industry**

3.20 In Tanzania, a strategy for the development of the domestic construction industry was established under IRP-I. In 1990 there were virtually no local contractors in the country, but by 1993 twenty had been trained. IRP-II helped set up the training of about 100 contractors, including 36 in regions where few contractors existed, through the National Construction Council (NCC). This process gathered momentum and by 2007, some 600 local contractors had been established by the NCC. IEG noted that, while the quality of contractors’ work was reportedly variable, a core of good contractors has been established that can handle medium to large sized contracts and successfully link up with international firms. Bank support was timely but, given the variable quality, only partially effective.

3.21 Under IRP-I, it had been agreed that road construction equipment owned by the MOWCT would be commercialized (and eventually privatized) under the Plant and Equipment Hire Company Ltd (PEHCOL). However, there were considerable problems in getting PEHCOL operational. This was due to delays in effecting the transfer of inventory, undercapitalization, and the poor condition of much of the existing equipment. Assistance from the Bank under IRP-II to take this further received a low priority when the project was restructured and the sub-component was dropped. GoT then made a financial contribution to PEHCOL as part of its divestiture program, but the venture was unsuccessful, and by 2000 a decision had been taken to sell off its assets.

3.22 In Uganda, currently all manual routine and periodic maintenance works, and 70 percent of routine mechanized maintenance works, are executed by private contractors and consultants, and a target of 100 percent has been proposed for 2012/13, encouraged strongly by the Bank.36 The UNRA Business Plan for 2009/10 declared that it will continue to promote the growth and development of local contractors by increasing the scope and complexity of works and services. It also intends to reduce the work it does by force account from 11 percent to five percent over the next three years.37 Efforts to strengthen the Ugandan national construction industry are receiving focused technical assistance from the British Department for International Development (DfID) and the European Commission, and this has been encouraged and supported by the Bank.38

**Performance-based Contracts**

3.23 In 2007 under CTCP1, TANROADS commenced the implementation of performance-based management and maintenance contracts on about 1,000 km of rural roads in three regions on a pilot basis. Such Bank supported performance-based contracts39 have

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36 PAD Transport Sector Development Project, Report 50977-UG, November, 2009
37 UNRA Business Plan 2009/10, page 6
38 Government of Uganda, Letter of Development Policy for the Transport Sector, October 8, 2009
39 A performance-based contract (PBC) differs significantly from a method-based contract that has been traditionally used to maintain roads (i.e. based on specified techniques, materials and quantities to be applied in
enjoyed considerable success in a number of developing countries in recent years since they were pioneered in Argentina, and are currently strongly advocated by the Bank. They were, moreover, positively evaluated by IEG in its recent study of the transport sector.\textsuperscript{40} These pilots, however, could not be finished under CTCP1 before closure and are continued using Road Board funding. Since the works are still being implemented, it is too early to evaluate them, but the results may prove important not only for Tanzania, but for the East African region as a whole. There has to date been no experimenting with performance-based contracts in Uganda.

**Public Private Partnerships**

3.24 Experience with public private partnerships (PPPs) in the transport sector in Tanzania has been mixed. The Bank-supported container terminal concession in the port of Dar es Salaam was successfully renegotiated in 2005 for a period of 25 years, with the operator agreeing to give up exclusivity for increased port space. The lake port of Kigoma has been managed by a private operator since 1995, but ferries (five were replaced or upgraded under CTCP1) remain under public sector control. A feasibility study under CTCP1 investigated whether it would be possible to concession the more viable ferries, but the low fares charged per passenger prohibit this. The ferries are regarded by GoT as part of the connectivity of the road system, and charging economic fares would be discriminatory to poor local people with limited options.

3.25 In the aviation sub-sector the Air Tanzania Corporation is Government-owned, although efforts are underway to find a private partner. Following the Bank-funded improvements at Kilimanjaro International Airport (KIA) implemented under CTCP1, Kilimanjaro Airports Development Company (KADCO) was awarded a 25 year concession in 1998 to operate the airport as a public/private sector joint venture with the Tanzanian Government.\textsuperscript{41} The Bank only financed the infrastructure improvements, however, and was not involved in the subsequent negotiations with KADCO based on an unsolicited bid. Mott MacDonald Engineering Group, the major shareholder, pulled out in 2007, since the opportunities for development appeared less robust than anticipated, and did not commit the equity that had been envisaged. Although in 2008 the Tanzania Horticultural Association started a cargo service for fresh produce with an investment guarantee from the United States Agency for International Development (USAID), GoT, disappointed by the overall lack of investment by shareholders, resumed control of KADCO at the end of 2009 and is currently looking for new investors. The Bank could perhaps have done more to ensure that expectations were realistic, but cannot be prescriptive, especially when its role is only

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\textsuperscript{41} Airport management was provided by Schiphol and operations management by UK-based CAA International Services, with Mott MacDonald responsible for airport general management. KADCO promoted the concept that KIA should be not only the gateway to the northern zone of the tourism industry in Tanzania (including Kilimanjaro, Serengeti, the Ngorongoro Conservation Area and other national parks), but could develop as a center for horticulture, agro-processing and other opportunities. A duty free export processing zone was also envisaged. Most of these developments did not materialize.
informal and advisory. A clear lesson is the necessity to ensure the market analysis for PPP ventures is thorough and practical.

3.26 Despite issues with awarding a rail concession discussed in the following section, the Bank has continued to support and have dialog with the Government concerning more participation by the private sector. The GoT’s continued commitment to greater involvement with the private sector is amply demonstrated by the recent revision of its PPP policy, putting greater emphasis on competitive bidding for all future PPP ventures, and setting rules to deal with unsolicited bids. It has also established a central PPP Unit at the Ministry of Finance and Economic Affairs and PPP units will be formed in each contracting authority in accordance with the PPP Act of 2010 with staff capacities improved through capacity building funds allocated under the Transport Sector Support Project. The international airports at Dar es Salaam (Julius Nyerere) and Zanzibar, for example, are considered by the Government to have good potential for PPP arrangements. Under the Transport Sector Support Project, now in implementation, the Bank has included US$5 million for feasibility studies and transaction advice. The component includes PPP feasibility assessments for airports under TAA, assistance to RAHCO to prepare a bankable central rail project, and training related to PPPs for staff of MoID, TANROADS, TAA, and other agencies.

3.27 There are fewer existing or potential PPP arrangements in Uganda than in Tanzania. A pre-investment study completed under RDP 1 for the Nile Bridge at Jinja, concluded that traffic levels were insufficient to justify a PPP arrangement. The Japan International Cooperation Agency (JICA) is currently financing the detailed design, repairs and construction of the structure.

3.28 All the airports, including the international airport at Entebbe, are owned and operated by the CAA, which is a GoU entity. The International Civil Aviation Organization (ICAO) has recently recommended that CAA’s regulatory function be run separately. Much of Uganda’s rail system is inoperable. In 2006 the private Rift Valley Railways Consortium (RVRC) undertook to rehabilitate the line between Kenya and Uganda and also to operate a freight service on it, but both Governments were disappointed by the efforts made by RVRC, so in 2008 the concession was awarded to Toll Holdings (Australia). There is no longer any passenger service to Mombasa or within Uganda.

THE RAILWAY CONCESSION IN TANZANIA

3.29 The least successful transport sub-sector in both countries has been the railways. As noted above, Uganda’s rail system is mostly inoperable. The central railway concession in Tanzania, supported by CTCP1, failed and has reverted back to the Government, though there are important lessons to learn from this setback. At the appraisal of CTCP1, Tanzania had two railway companies. The Tanzania Railways Corporation (TRC) with 1m gauge and the Tanzania-Zambia Railway Authority (TAZARA) with a 1.067 m gauge. The goal was to improve the performance of the railways through engaging the private sector in the

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44 Much of the rail network of TRC was originally built in the 1920s with some extensions in later years; TAZARA was a turnkey project financed and executed by China; it opened to traffic in 1976
operations and financing of the railways. The rail tonnage conveyed by TRC showed a
downward trend from 2003 when 1.45 million tons were carried. By 2005 there had already
been a decline of 20 percent in freight traffic and this trend continued through 2007.

3.30 In 2007, Rail India Technical and Economic Services Ltd (RITES) won the contract
from the Parastatal Reform Commission to operate the railway as a concession for 25 years.
It had been anticipated that the International Finance Corporation (IFC) would be a potential
lender and provide a partial risk guarantee of up to US$40 million, but IFC objected to the
choice of local partner, GAPCO, Tanzania, Ltd, because this company was in arrears to IFC
in respect of payments on another investment. There was also concern about the accuracy of
the asset records of the Reli Assets Holding Company (RAHCO) to which the assets of TRC
had been transferred. TRC became the Tanzania Railway Ltd (TRL) and GoT took over
GAPCO’s role, giving it a 49 percent stake. The concession signing was delayed for two
years before being finally awarded to TRL. This was partly due to a legal challenge from
another potential bidder that had to be settled in court. Although this case was dismissed all
these obstacles added to the delays and there was no interim strategy to mobilize bridging
finance while these events unfolded.

3.31 After the concession agreement was signed, the Government and the concessionaire
did not work well together to solve the problems and improve the railway operations. Instead,
they blamed each other for the deteriorating performance resulting in a paralysis of action for
almost a year. In 2010 GoT terminated the contract with RITES and resumed control. GoT
released some funding for urgent repairs following heavy rains and flood damage, but this
made only a small dent in the backlog of nearly 2,000 km. of track needing rehabilitation at a
cost of at least US$400 million. By 2009 the volume of freight carried had shrunk to 0.45
million tons with the road transport improvements attracting further traffic away from rail.

Had the concession become operational in 2005 this tendency might have been arrested with
a rationalization of services and tariffs and an aggressive marketing strategy. But it was
reported that: “The two year delay accompanied by an absence of investments by the
Government and a sound safety net for the remaining staff, led to a deterioration of railway
infrastructure, low staff morale, increased thefts and vandalism, increased strikes and other
irresponsible acts.” IEG confirms from various interviews that this view is widely held. The
amount eventually paid by GoT to retrenched staff was $16,000 per person, nearly 12 times
Tanzania's annual per capita income.

3.32 The sub-component for the provision of technical advisory services for the future
private sector participation in TAZARA did not proceed, following the experience with TRL,
and because of possible prospects of direct Chinese investment as an alternative. The
Tanzanian and Zambian Governments remain undecided as to whether or not to support a
concession arrangement and the current preference of the two Governments is to award the
concession (should there be one) to a Chinese firm without an internationally competitive
process. This is justified on the basis of significant outstanding liabilities by Tanzania to the
Chinese Government and the high cost of retrenchment based on precedent.

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45 The concessionaire was supposed to pay over US$ 6 million to GoT, but refused on the grounds that RAHCO
was supposed to have 92 working locomotives and only 55 apparently existed.

3.33 Subsequent to the nonperformance of TRL and the collapse of the concession agreement, some resistance in Government developed to a concession for TAZARA. TRL performance could still be improved with more appropriate institutional arrangements, preferably involving private participation on a sounder basis, but—as already noted—some US$400 million would have to be found in the short to medium term for railway rehabilitation if the infrastructure is to be sustained. Unless an intervention is made soon, the TRL rail assets may not be recoverable, with continued damaging consequences for the road system. Clearly, PPPs will only be successful if there are real opportunities for gain by both parties. If, as in the railway case, the track is old, the equipment worn out, and the market forecasts uncertain, top quality investors will not be interested unless there is a subsidies provided.

3.34 Alternative ideas have been put forward by the GoT and other stakeholders. In March 2010 there was a conference in Dar es Salaam attended by interested parties, including the Bank, on the need to revive the East African railways. The discussions centered on the shortcomings of the existing concession model, the huge undercapitalization of the existing railways, and the absence of a regulatory framework for balanced competition for road and rail freight haulage. A report funded by the US Trade and Development Agency advocated a new standard gauge railway, but since this is likely to cost in the region of US$5 billion, it remains to be seen whether this proposal can be viable and whether the private sector will be willing to contribute. In the meantime a decision has been taken to re-vitalize the existing TRL line and this is being supported through the Transport Sector Support Project. A TRL business plan, market strategy and estimate of short term investment funding requirements are to be undertaken.

4. Conclusions and Lessons

Transport Sector Reform Outcomes

4.1 Road sector reforms have now taken place in 27 Sub-Saharan African countries, including Tanzania and Uganda. Advantages of establishing autonomous Road Agencies and independent Road Funds include effective performance based structures not tied to civil service remuneration levels, accountability to management boards representing the public and private sectors, and priorities driven primarily by economic considerations. However, an additional significant gain is to preserve roads more cost efficiently by changing from force account (or own labor force) to contracting out road maintenance works. Countries that have made this change report savings of up to 25 percent on the costs of their unit rates of road maintenance. In other words due to improvements in productivity the road maintenance budget can maintain more roads with the same money. Road Funds, financed through road user charges (primarily fuel levies) have certainly improved the availability of resources for

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47 East African Railways Conference, Dar es Salaam, March, 2010
However, only one third of road funds fully meet routine expenditure needs on a regular basis.

4.2 Tanzania, despite early setbacks with mismanagement and corruption in the nineties, has made steady progress in terms of policy reform. At the closure of CTCP1, Transport Master Plans were in place, a Road Fund had been set up (its framework cited as best practice in Sub-Saharan Africa) and an autonomous, performance-based Road Agency was operating with a clear separation between its operational activities and the policy and regulatory functions of central government. Force account work has been phased out in favor of using local private sector contractors. Some 87.5 percent of the main road network was in good condition. Moreover, there has been a recent move to test performance based contracting, which has proved to be successful in other countries. The main feature of such contracts is that the contractor is paid a fixed fee for keeping the road at a pre-defined service level and is penalized for not doing so. However, despite significant increases in the user fee levels there remains a maintenance backlog and only two thirds of routine maintenance needs are covered.

4.3 In Uganda progress towards policy reform has been slower and more moderate. While a Road Agency and a Road Fund have been established after some considerable procrastination, and some 70 percent of Uganda’s main roads are in good or fair condition, serious concerns remain about sustainability, because of uncertain funding for maintenance (the fuel levies are not yet directly paid into the Road Fund) and inadequate staffing to cope with an increased budget and work load. In house force account work has been reduced, but not yet phased out. There are also concerns about the lack of effective control of overloaded vehicles, the additional and largely unfunded responsibility for 10,000 km. of recently re-designated roads as well as urban roads in Kampala. Allegations of corruption are also currently under investigation. Consideration is being given to performance based maintenance contracts, but none have yet been commissioned.

4.4 Other challenges remain in both countries, including fully covering maintenance needs, developing a cost recovery policy, an updated transport planning framework that takes into account both the road and rail modes, and the need for renewed emphasis on seeking a stronger role for the private sector. Road safety is also an area needing more focused attention, since the road accident and fatality records in both countries are dismal.

4.5 Monitoring and evaluation was neglected in both countries, especially in the earlier projects because the implementing agencies lacked the capacity to undertake these functions, and a decade ago the Bank was less rigorous in this area than it is nowadays. In the projects reviewed in this assessment the development objectives were often too broadly framed to be measured and insufficient thought was put into the results framework. Due to the underestimation of the time the projects would take to be completed, there was a tendency to add components from different sub sectors and such revisions tended to further prolong project life and complicate implementation. It was sometimes argued that this would save

50 See for example Benmaamar M Financing of Road Maintenance in Sub-Saharan Africa, SSATP, 2006 and Overview of the Reform and Management of roads in Developing Countries www.gtz.de/roads
transaction costs, but in IEG’s view this was more than offset by the costs caused by greater complexity.

4.6 In respect of railways in Tanzania, the attempt to concession TRL was unsuccessful. Alternative solutions such as a new railway system using standard gauge track may be unaffordable unless the private sector agrees to support the venture. IEG is concerned that unless some intervention is made soon, the TRL rail assets may not be recoverable, with continued damaging consequences for the road system and, potentially, for the environment.

4.7 What value did the Bank add? There have been significant improvements in financial management, auditing and procurement and the Bank played a strong role in supporting the Borrowers in these areas. The road, ferry and airport components in Tanzania were well supervised, especially the safeguard aspects, and the supervision teams were flexible and helpful in accommodating additional requests. The Bank teams also provided guidance on their latest experiences with the creation of Road Funds and agencies (drawing on the resources and knowledge of SSATP); the teams helped strengthen contract management, provided useful technical assistance, and enhanced donor collaboration in the road sector. However, the Bank’s supervision teams could have been more realistic in assigning the ratings for development objectives and implementation performance in its implementation supervision reports, especially in the case of the railways. They could also have been more pro-active in addressing the causes of project delays and alerting management to impending issues.

4.8 The following main lessons are drawn from this PPAR:

- The Road Agency model has provided sufficient institutional capacity in low income countries such as Tanzania and Uganda to improve the delivery of new main roads and their maintenance. Supporting Road Funds can further enhance road sub-sector reform provided they are properly designed and adequately resourced. Working together, these institutions can substantially improve the performance of road management and coverage of maintenance needs from a dedicated fund.

- During road reform initiatives, the Borrower’s absorptive capacity, the degree of opposition to change and the time it takes to prepare and adopt new legislation, have often been miscalculated by the Bank and other development partners. The Bank thus needs to ensure appropriate training and skills deployment to i) assess and address the Borrower’s institutional and absorptive capacity limitations; ii) gauge the degree of resistance to change and make a plan to deal with it, and iii) realistically estimate the time it takes to prepare, adopt and apply new legislation.

- An annual assessment of the condition and traffic usage of the roads in the network enables the decision makers and the public to understand the implications of greater or lesser funding. The development partners can also ascertain the extent to which the assets created using their finance are being preserved.

- When two modes such as road and rail are competing for freight traffic in the same corridor an improvement or deterioration in the one mode will affect the traffic using the other. This has implications for transport policy and strategy and should also be built into the risk analysis before an investment is made.
Rehabilitating and reforming rail systems is a demanding and complex undertaking that normally requires dedicated staff and expertise. This should be accomplished through an exclusive and separate operation, and not tacked on to an existing road project. In the case of competing transport modes, key decisions need to be made about infrastructure provision. If the railways are to be shut down, the roads must be built with stronger pavements. If the railways are to continue functioning, then serious investment is necessary, and the willingness to bear some of the cost by mining companies and other major users and stakeholders assumes importance. The balance between road and rail can be altered by regulation, but before taking such action a thorough cost benefit analysis is needed.

Public private partnerships will only be successful if there are real opportunities for gain by both parties, as was the case in the port of Dar es Salaam. If, as in the railway case, the track is old, the equipment worn out, and the market forecasts uncertain, top quality investors will not be interested unless there is a subsidy from Government.

Contingency plans are necessary when concessions are considered to determine the strategy that should be followed in the event of delay or lack of interest. It is in such a hiatus that institutional capacity can become weakened and maintenance neglected. 

Appendix A: Evaluation of Tanzania Second Integrated Roads Project (Credit 2598-TA)
Annex A. Evaluation of Tanzania Second Integrated Roads Project (Credit 2598-TA)

Principal Ratings

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<thead>
<tr>
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Key Staff Responsible

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<th>Division Chief/Sector Director</th>
<th>Country Director</th>
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<td>Appraisal</td>
<td>Joel Maweni</td>
<td>Stephen Weissman</td>
<td>Francis Colaco</td>
</tr>
<tr>
<td>Completion</td>
<td>Solomon Waithaka</td>
<td>Sanjivi Rajasingham</td>
<td>John McIntire</td>
</tr>
</tbody>
</table>
Summary

Project Objectives

1. This was the Second Integrated Roads Project in Tanzania with multi donor support, but it commenced while the First Integrated Project was still in implementation and had not been evaluated. Together, the projects over-burdened the implementing agency contributing to mismanagement and governance issues. The Bank suspended procurement activities on the IDA credit, resulting in a four year loss in implementation time. When activities resumed the project was restructured and emphasis was given to repairing road infrastructure damaged by El-Nino induced flooding. Whereas, the original project development objective emphasized economically important roads, the amended objective referred also to rural roads. The revised objective reads to increase accessibility and mobility in rural areas, and develop an efficient and viable transportation sector through the implementation of sustainable improvements in the administration and coordination of sector activities, including organization, management, and financing of road infrastructure and improvement of road transport services.

Main Findings

2. The overall outcome is rated unsatisfactory and with a significant risk to development outcome. Although some road and airport improvements were completed and important emergency repair works to flood damaged roads and bridges were carried out, the project could not be implemented on the scale, at the level of complexity, or within the time frame envisaged in the original design. It also encountered serious governance problems in the beginning. Only 53 percent of the originally intended funds from the credit were disbursed. On institution building the Government was slow to follow up on some of the Bank's proposals, and several original project intentions— to improve road safety and multi-year programming capability, for example.—remained unfulfilled at closure. Nevertheless, the basic groundwork that was done eventually progressed in later projects.

Lessons

3. When inordinate delays are experienced in achieving key objectives and circumstances change significantly, a formal restructuring of the project should be considered.

4. When scaling up lending activities in a multi-donor program it is essential that the donors coordinate and take a realistic view of the Borrower’s capacity
Context of the Project

5. Tanzania recognized in the mid-eighties that to achieve an economic recovery from the steady economic decline in the seventies and a financial crisis in the early eighties it would need *inter alia* to reduce infrastructural constraints, and in particular transport bottlenecks. This was the basis of its 1987 National Transport Policy, which recommended a significant shift in public expenditure resources to transport expenditure. The policy also supported strengthening weak institutional structures, strengthening coordination among donors, and tackling the failure to correlate maintenance requirements with new investments. Commencing with the Arusha Donors’ Conference in 1987, the Government of Tanzania (GoT) and international financiers discussed these issues culminating in the preparation of the First Integrated Roads Project (IRP-1). There was considerable interest from the international community and 17 donors provided support to the project in the amount of US$790.6 million, with the Bank agreeing to contribute US$180.4 million. The Bank project was approved in 1990 and was scheduled to close in mid-1998. When it eventually closed in 1999, however, it was rated unsatisfactory.

6. The ambitious and complex (IRP-I) program had been unrealistic in its expectations of the implementing agency. The implementing agency could not increase its capacity at a rate to keep pace with the new program and, encouraged by an overall environment of poor governance, serious mismanagement and corruption ensued. By 1995 there were serious governance issues in that it was open to widespread mismanagement and fraud. The Bank suspended procurement activities, resulting in a four year loss in implementation time. The Government established a broader enquiry under Judge Warioba leading to a report on the state of corruption in Tanzania. The findings had significant repercussions in the transport sector as they indicted officers in the Ministry of Works, Communications and Transport for taking bribes to award tenders, as well as inflating contracts, and concealing poor performance by contractors. The Bank conducted a separate investigation of shortcomings in its own procedures.

7. However, IRP-I was initially hailed as a success with benefits of early progress being experienced in many areas. The donor community (Bank included), based on this apparent euphoria, agreed to increase the scope of assistance by launching a second Integrated Roads Project (1994). The additional burden on an already over-stretched implementing agency quickly turned into a liability, and the Bank suspended procurement in 1995 on IRP-II at the same time as IRP-I. Following the review, the credit was restructured in 1998, and the closing date was then extended to 2004 to allow for some of the loss in implementation time.

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52 For example USAID sponsored a study of the socio economic impact of rural road rehabilitation in the Kilimanjaro area under IRP-I and concluded that high economic rates of return and greatly improved mobility for local people had resulted.
Objectives and Components

OBJECTIVES:

8. The principal project development objective (PDO) as stated in the PAD and the Development Credit Agreement (DCA) [with minor wording differences] was “to support Tanzania’s Economic Recovery Program by reducing transportation costs and improving accessibility to economically productive areas, primarily agriculture, tourism and mining, while strengthening overall administration, organizational, and financing arrangements in the road sector.”

Components:

A. Policy and institutional support (appraisal cost US$10.94 million, cost at completion US$11.34 million):

(a) Strengthening road network management; (b) strengthening technical and managerial capacity; (c) developing the domestic construction industry; (d) improving management of road transport companies; (e) improving regulation and management of civil aviation; and (f) policies and future projects.

B. Road Upgrading Rehabilitation and Backlog Maintenance Programs (appraisal cost US$132.91 million, cost at completion US$61.97 million):

(i) Trunk Roads, Culverts and Bridges including: (a) rehabilitation of about 855 km of main roads comprising 650 km of paved roads and 205 km of gravel roads; (b) upgrading to paved double surface dressed standards of about 785 km of gravel roads; (c) spot improvements on a further 128 km; (d) addressing the backlog of periodic maintenance on about 520 km; (e) rehabilitation of about 186 bridges and replacement of another 33 damaged or washed away bridges totaling about 5,530 m; and (f) procurement of culverts estimated to cost US$3.0 million.

(ii) Rural Roads, Culverts and Bridges consisting of: (a) rehabilitation of about 1,800 km of selected essential district roads and 1,200 km of regional roads; (b) backlog periodic maintenance of about 1,370 km of regional roads; and (c) rehabilitation of bridges totaling about 864 m and replacement of about 22,500 m of culverts on priority road sections.

C. Village Travel and Transport Pilot Program (appraisal cost US$0.65 million, cost at completion US$0.53 million): (i) rehabilitation of rural transport infrastructure; (ii) increasing access to intermediate means of transport.

D. Civil Aviation (appraisal cost US$20.65 million, cost at completion US$15.86 million): Kilimanjaro International Airport Resurfacing and runway lighting.

The appraisal figures do not include US$4.15 million for contingencies. In addition there was a project preparation fund of US$1.05 million.

Implementation Experience

Project Cost

9. The total project cost for IRP-II was US$650.20 million at appraisal and US$669.82 million at completion. IDA’s contribution was US$170.20 million at appraisal and US$90.77 million at completion, or 53 percent of the credit amount. US$79.43 million was cancelled. Two development partners, European Economic Commission (EEC), 66 percent, and the
Organization of Petroleum Exporting Countries (OPEC), 45 percent, also did not fully disburse their committed funds, but the other partners either fully disbursed their commitments or exceeded them.

Financing

10. This project was a pioneer of the Sector Wide Approach (or SWAp). The idea was to link the development of transport infrastructure directly with the GoT’s economic recovery objectives, and in particular to identify needed institutional and financial reforms that could improve service delivery. Several development partners were prepared to give their support to this concept. The African Development Bank (AfDB), Kuwait Fund, and the OPEC Fund participation were in the form of loans; IDA provided a credit, and the remainder was grant funding. At closure the largest financiers of the project were AfDB (US$128 million), the European Economic Community Non-associated Country Program (US$119 million), and Japan (US$101 million), with IDA as the fourth largest contributor (US$91 million). Other donors were the Finnish International Development Agency (FINNIDA), the Norwegian Agency for Development Cooperation (NORAD), Swiss Development Cooperation (SDC), the Danish International Development Agency (DANIDA) and the Government of the Netherlands. Little information is available concerning the views of other donors, but AfDB and DANIDA reportedly concurred with the lack of readiness at implementation and the disruptive effect of frequent amendments to the project. However, the other development partners did not similarly suspend procurement activities or restructure their activities.

Borrower Contribution

11. The Borrower's projected contribution for IRP-II was US$67.90 million at appraisal, and at completion US$71.14 million, or about nine percent of the total cost.

Restructuring

12. The project was approved on April 7, 1994, and became effective on February 10, 1995. The Bank suspended procurement later that year after disbursing only US$19.44 million (11.4 percent) of the IDA credit. In August 1998 the project was restructured following a detailed review of the current and the preceding project, (IRP-I) which was also still under implementation. Although much of the substance of the original PDO was retained including reduced transport costs, the text was amended to read (changes underlined): i) increased accessibility and mobility in rural areas, and ii) develop an efficient and viable transportation sector through the implementation of sustainable improvements in the administration and coordination of sector activities, including organization, management, and financing of road infrastructure and improvement of road transport services. The emphasis of the PDO was changed, so that “rural” replaced “economically productive” because some of the flood-damaged roads were in deep rural areas, IEG evaluated the project based on this more detailed wording. Assessing the objectives “before” and “after” the restructuring does not make any significant difference to the outcome, since only 11 percent of the funds had been disbursed at the time.

13. The project scope was changed substantially by deferring two large components (Singida Shelui and the backlog maintenance program) in favor of a new component to
address the emergency rehabilitation of trunk and district roads destroyed or damaged by the El-Nino floods. The Singida-Shelui road was not immediately dropped because GoT was anxious to implement it, but because of substantial delays in document preparation, it eventually had to be dropped as there was insufficient time to complete it before project closure. The extensive maintenance program was effectively replaced by the flood damage restitution. The Board approved the revised activities and key associated outcome targets on August 8, 1998 and subsequent ad hoc additions were approved by the Regional Vice-President. For example, in 1999, priority activities in Zanzibar were added—emergency surfacing of the airport runway—and the project closing date was extended to 2004. In 2002 the credit was further amended to include additional rehabilitation of roads and studies on roads and ferries. Later that year, however, US$70 million was cancelled because most outstanding components could not be completed by project closure. The credit was thus for the most part closed in June 2004, except for a one year allowance made for the emergency airport runway surfacing in Zanzibar. This contract, however, was eventually also terminated due to poor contractor performance and the credit finally closed in December 2006, six years after the originally scheduled closing date. A final cancellation of US$9.43 million undisbursed funds took place at closure.

FIDUCIARY ASPECTS

14. Given the growing concerns emerging from IRP-I and the difficulties being experienced in IRP-II the Bank decided to suspend procurement on both projects. These concerns include prolonged procurement processes, lack of acceptable budgetary controls and weak monitoring, as well as poor contract and financial management leading to increased contract prices and claims. These problems led to a four-year loss in implementation time. A thorough review/audit of both projects took place and resulted in project re-structuring. During this period TANROADS was established and project staff started to benefit from a new performance-based salary structure. Efforts were also made to recruit more qualified staff and all benefitted from training and technical assistance.

15. Following the restructuring, fiduciary oversight of the project including audits was carried out in a timely manner with TANROADS continuing to build acceptable capacity in financial and project management.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS

16. This was a “B” category project. For those components that were completed there was no relocation of households, while land acquisition was very small because most improvements involved upgrading existing infrastructure. Measures to mitigate the adverse effects of construction and construction-related traffic were included in the contract documents. This also included arrangements to protect the environment and the communities during construction with measures such as appropriate disposal of waste, restoration of borrow pits, road traffic diversion and safety measures, as well as health services for workers and their families.

17. Under the project, guidelines were prepared on sound environmental design and management. These guidelines are now a standard document for new transport projects.
UNINTENDED IMPACTS

18. The development of the road sector led to the formation of the Tanzania Road Association—a stakeholder’s forum to advocate for better roads. The project also increased the potential for the spread of HIV/AIDS, but the Bank and GoT mitigated the effects by supporting campaigns in all contracts to educate construction workers, affected villagers and truckers, and supply free condoms. No follow-up, however, was carried out to assess the effectiveness of these measures.

19. The higher speeds that became possible on improved roads frequently lead to increased frequency and severity of road accidents in developing countries according to road safety experts and in the short term the problem is normally addressed, as in this case, by introducing rumble strips and speed humps to slow the traffic where the roads pass through villages and towns. According to the police, accidents have fallen, but their records were not sufficiently reliable to attribute this solely to the safety measures. For the longer term GoT with Bank support has begun to devise an appropriate road safety strategy.

Monitoring and Evaluation (M&E)

Design

20. While there was no formal requirement for an M&E system design or a results framework at the time that this project was appraised (1994), the ICR notes that the Ministry of Works, Communications and Transport (MOWCT) and IDA developed a “monitoring list” intended to be updated monthly. Baseline figures for trunk roads in poor condition were provided and a target of 70 percent of the road network in fair or good condition was set. For the airport increased throughput of aircraft, passengers and freight was anticipated. However, no new targets were provided at restructuring for the flood-damaged roads and no adjustments were made to existing targets.

Implementation and Utilization

21. Both implementation and utilization were almost entirely absent. The monitoring list was not pursued because neither MOWCT, nor (after 2000) the Tanzanian Road Agency (TANROADS), had the capacity to perform the M&E function. The project team reported on outputs such as contract awards, but no indicators other than road condition were measurable and no further condition reports were mentioned in the ICR. Overall M&E quality was negligible.

Relevance

Objectives

22. The original PDO, and the PDO as expanded after restructuring, were broadly relevant and consistent with the CAS then in effect, and with the current CAS. They emphasize poverty reduction with targeted and improved service delivery, provision of economic infrastructure, structural and governance reforms, as well as government
ownership of the development agenda. The PDO was also in line with the Government’s National Transport Policy and the Letter of Sector Policy included in the PAD. In the latter the Government expressed its intention to move towards decentralizing responsibility for operations in the transport sector.

23. The CAS analysis, however, emphasizes the institutional and political risks in achieving such strategic objectives and while it is difficult to disagree with their intention, the PDO could, with the benefit of hindsight, have reflected more specific and less ambitious goals. Their relevance was, nevertheless, substantial.

Design

24. Although the project design included activities related to the project objectives, the targets were too ambitious and the project was overly complex. Scale is particularly a concern in a country with persistent maintenance problems. There was also no results framework. From the outset implementation was likely to fail as designed. This became evident in the first year after effectiveness. The project had not ensured that proper financial and management structures were in place to support such a large investment. While some of the risks had been identified during preparation, the design did not allow for sufficient time for mitigating activities, or take into account the fact that the local construction industry lacked experience. The relevance of design was negligible.

Efficacy

25. The amended objective added (changes underlined): to increase accessibility and mobility in rural areas, and develop an efficient and viable transportation sector through the implementation of sustainable improvements in the administration and coordination of sector activities, including organization, management, and financing of road infrastructure and improvement of road transport services. [The changes altered the meaning of the original objective slightly to include a more “rural” focus to cover the flood damaged roads and bridges and the addition of the word “sustainable” were added to the institutional aspects. The words “efficient and viable” showed that there was still an emphasis on economic projects].

Develop a more Efficient and Viable Transport Sector Modest

26. The project reduced transportation costs and improved road transport services by improving two key roads, notably the rehabilitation and upgrading of 47 km of paved road from Magogo to Mwanza and urgently needed rehabilitation of the Mkoani-Chake Chake road on Pemba Island, Zanzibar. The Pemba road is the island’s spinal road, supporting local commerce and tourism. Since the Magogo-Mwanza road was part of the Central Transport Corridor route leading from Tanzania to Rwanda, Burundi, DRC, and Uganda, it was economically important and a two hour journey time saving was achieved through its improvement. But the full value was not realized because the last link in the corridor, Singida-Shelui (110 km), which should also have been completed under this project, did not
get beyond bid document stage\textsuperscript{53}—the construction had to wait for a follow-on project. This road link was not immediately dropped because GoT was keen for it to go ahead, but eventually it became clear that it could not be completed before the project was closed. The restitution of the flood damaged roads and bridges were implemented and access was restored in the affected regions. The socio economic benefits of this component were not measured but were likely substantial.

27. Regarding aviation, the resurfacing of the Kilimanjaro International Airport (KIA) runway and installation of its lighting system were carried out as intended and the standards were acceptable to the International Civil Aviation Authority (ICAO). The upgrade meant that the steady growth in passengers could be accommodated (see Table A1 below). However, the resurfacing of the new component, the Zanzibar International Airport runway, could not be completed due to poor contractor performance. At project closure only 15 percent of the work had been completed and it was finished in due course under a follow-on project.

Table A1 Tanzania: International Airport Statistics 2001-2009

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<tr>
<th>Airport</th>
<th>Kilimanjaro (International)</th>
<th>Zanzibar (International)</th>
<th>Dar es Salaam (Julius Nyerere)</th>
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<td>YEAR</td>
<td>Passengers</td>
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<td>2009</td>
<td>427,816</td>
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Source: Tanzanian Airports Authority

28. The important component to reduce the backlog of road maintenance through rehabilitation, upgrading, periodic maintenance and spot improvements (2,215 km) was, after restructuring, replaced by emergency work to restore damage caused to 1,074 km of main roads and 752 km of rural roads, culverts (16,850 m), and bridges (23) by El-Nino induced flooding in mainland Tanzania and on Zanzibar Island. Dropping the rehabilitation and maintenance component was to have important consequences for sustainability, however. The 1994 baseline figures for trunk roads and regional roads in poor condition were 38 percent and 58 percent respectively, which were to be reduced to 19 percent and 40 percent by 2000, but this target was unachievable before the credit closed in June 2004, and new targets were not set at restructuring. The PAD for the CTCP project indicates that by

\textsuperscript{53} The initial design financed by AfDB and other documentation were not acceptable to the Bank and had to be revisited. According to the ICR (Report 502) page15 “Due to procurement delays, subsequent poor performance of the design consultant and inherent weaknesses in supervision within GoT, it was found prudent to cancel the civil works component and transfer it to the Central Transport Corridor Project”.

February 2004 some 44 percent of the trunk roads were in poor condition and 51 percent of regional roads, so the condition actually deteriorated.  

29. Overall, only half of the funding planned under the credit at appraisal was disbursed, the condition of the trunk road network deteriorated, and some important components were unfinished. Taking into account the positive effect of the emergency work, achievement was mixed and efficacy modest.

*Rural Accessibility and Mobility Substantial*

30. The El-Nino repair works certainly aided rural accessibility in seven regions, as 752 km of rural roads were restored and improved (as well as 1,074 km of damaged main roads). About 1,000 people were displaced and a further 25,000 adversely affected by the severe floods which cut off communities, ruined crops and endangered food relief efforts.  

31. The Village Travel and Transport Program (VTTP) pilot was also completed. This program entailed improvements and repairs to 550 km of community roads and 23 bridges, construction of 547 km of footpaths and 30 foot bridges, as well as promotion of the use of intermediate forms of transport (such as donkeys and canoes) in remote areas. This proved popular, because many villages were isolated during the rainy season, but it was a small share of the total project cost. Achievement of the rural accessibility aspects taken together was substantial.

*Sustainable Improvements in the Administration and Coordination of the Sector Modest*

**POLICY AND INSTITUTIONAL SUPPORT**

32. Beginning with IRP-I a fundamental reform process of the transport sector was set in motion by GoT which continued under IRP-II. In 1998 a Road Fund was created with a Board of Directors, a Secretariat and dedicated budget funding, and in 2000 TANROADS, a Road Agency, was set up responsible for 28,900 km of trunk and regional roads. In 2003, a land transport regulator (SUMATRA) was established together with the Tanzanian Civil Aviation Authority (TCAA) and the Tanzania Airports Agency (TAA). Throughout this process the Bank gave its support and pursued a continuous dialogue, but the creation of these institutions was not formally part of IRP-II.

33. Planning studies were completed including a National Transport Master plan and a separate Transport Sector Strategy Plan for Zanzibar, as well as a draft Road Sector Environmental Policy and assistance with the establishment of a Land Commission. The project also succeeded in helping GoT formulate policy and sector operational guidelines for private sector participation in the provision of transport services. Examples are the concession of KIA as a public private partnership which proved short-lived, and GoT divestiture in road transport contributing to the private sector’s control of over 90 percent of the market. A Road Safety Master plan covering mainland Tanzania and Zanzibar was completed with recommendations for institutional reforms in the management of road safety,

55 Special Assessment report, World Food Program, 1998
but follow up has been slow. An institutional study to review and optimize Ministry of Communications and Transport (MoCT) Zanzibar was also undertaken, but progress thereafter was limited. Finally, a Road Fund Revenue Base Study was carried out which recommended a road levy as an alternative to budget funding. It should be noted that each of these studies was the point of departure of a long journey towards achieving implementation through later projects. In some cases, such as road safety this was still in its infancy at the time of the IEG mission. While the foundation for change has been established, implementation achievements are modest

**ROAD NETWORK MANAGEMENT**

34. A prioritized Road Sector Investment Program which is part of the Ten Year Transport Sector Investment Program was established based on economic criteria. Feasibility studies, detailed designs and, where appropriate, environmental studies and bid documents were completed for two sections of highway in the Central Corridor (171 km), the Tunduma-Sumbawanga road (240 km), two sections of the Tanzam highway (167 km) and three roads in Zanzibar (57 km). Feasibility studies showed that the Makuyuni-Musoma road should not proceed because of the fragile Serengeti-Ngorongoro eco-system and that the Makuyuni-Lalego road should not be paved as it was not economically viable. Tender documents for the rehabilitation and purchase of ferries at five locations were also completed.

35. Manuals and guidelines for road design were completed as were guidelines on sound environmental management and the conduct of environmental impact assessments. These guidelines are in current use as standard documents for all transport sector projects.

**SECTOR TECHNICAL AND MANAGERIAL CAPACITY**

36. Technical assistance and training including workshops and seminars were provided for MOWCT, TANROADS, MoCT Zanzibar, the Coordination Office for Donor Assisted Projects, and the National Institute of Transport. This included improvements to TANROADS financial and management information systems. In addition office equipment, computers and accessories were procured for MOWCT and TANROADS. It is likely that these activities and new assets made a substantial difference to the eventual functioning of TANROADS, but there was no attempt to measure the impacts.

**DEVELOPING THE LOCAL CONSTRUCTION INDUSTRY**

37. The strategy for the development of the domestic construction industry was established under IRP-1. In 1990 there were virtually no local contractors, but by 1993 twenty had been trained. IRP-11 set out to expand this number with a further 100 contractors, including 36 in regions where few contractors existed through the National Construction Council (NCC) according to the PAD. This created a momentum and by 2007 some 600 contractors were in existence. A Contractor Registration Board was set up and a line item under “items by component” suggests that NCC itself received unspecified training, but it is unclear whether the Bank had anything to do with this.

38. Under IRP-I it had been agreed that road construction equipment owned by the MOWCT would be commercialized (and eventually privatized) under the Plant and
Equipment Hire Company Ltd (PEHCOL). However, there were considerable problems in getting PEHCOL operational due to delays in effecting the transfer of inventory, undercapitalization and the poor condition of much of the equipment. Assistance from the Bank under IRP-II to take this further received a low priority when the project was restructured and no funding was provided. The GoT eventually made a strategic contribution to PEHCOL as part of its divestiture program.

**IMPROVING MANAGEMENT OF ROAD TRANSPORT COMPANIES**

39. The original institutional support activity list mentions improving the management of road transport companies. This was also dropped at restructuring. However, a Road Transport Services Restructuring Study completed under IRP-1, confirmed there were no longer barriers into the market for the provision of such services and that the private sector predominated. GoT formed a regulator for the transport sector (SUMATRA). Areas for future assistance will likely be related to attracting private sector capital, and would also focus on improving the safety and reducing the overloading of road transport vehicles.

**IMPROVING REGULATION AND MANAGEMENT OF CIVIL AVIATION**

40. The Bank supported the creation of TCAA and TAA by financing a restructuring study and a study to identify urgent investments and in helping to formulate policy and sector operational guidelines for private sector participation in the provision of air transport services. Results have been mixed. Following the improvements at KIA in late 1998, Kilimanjaro Airports Development Company (KADCO) was awarded a 25 year concession to operate the airport as a public/private sector joint venture with the Tanzanian Government. Mott MacDonald, the major shareholder, pulled out in 2007, however. In 2008 the Tanzania Horticultural Association started a cargo service for fresh produce with an investment guarantee from the United States Agency for International Development (USAID), but GoT, disappointed at the lack of investment, took back the shareholding of KADCO at the end of 2009 and is currently looking for new investors.

**SUSTAINABLE IMPROVEMENTS IN THE ORGANIZATION, MANAGEMENT AND FINANCING OF ROAD INFRASTRUCTURE**

41. While the studies undoubtedly helped to establish a framework for change, it was unrealistic to assume that the benefits were going to be realized during this project’s lifespan. Many of the new institutions were not functioning effectively by project closure, and the capability to undertake multi-year planning, including the planning for traffic safety, still needed support. Transfer of the development and maintenance of trunk and regional roads from the Ministry to TANROADS, for example, was very gradual and still not completed seven years after the agency’s establishment. TANROADS’ capacity was constrained initially. For instance, the M&E function could not be undertaken and the agency’s autonomy

56 Airport management was provided by Schiphol and operations management by UK-based CAA International Services, with Mott MacDonald responsible for airport general management. KADCO promoted the concept that KIA should not be only the gateway to the northern zone of the tourism industry in Tanzania (including Kilimanjaro, Serengeti, the Ngorongoro Conservation Area and other national parks), but could develop as a center for horticulture, agro-processing and other opportunities. A duty free export processing zone was also envisaged. Most of these developments did not materialize.
was also fragile as the transition to a fully-fledged road agency, with its own board to guide its operations and protect management from excessive outside interference, was still the subject of ongoing dialogue. The Kilimanjaro concession contract contained some monopolistic clauses that were not in the long term interest of the economy.\textsuperscript{57}

42. The Road Fund had been established under IRP-I with support from the Sub-Saharan African Road Maintenance Initiative, but following audit reports showing misappropriation of funds, several donors questioned its transparency and accountability. This led the GoT to urgently address the matter leading (under IRP-II) to the appointment of a Road Fund Board (RFB) to oversee its activities. The quantum of funds received by the RFB was, however, insufficient covering only about 40 percent of assessed maintenance requirements, although agreement had been reached between the Bank and GoT during negotiation of the credit that by 1995/96 routine maintenance costs would be fully funded. Moreover, the routing of the funding from the fuel levies was inefficient and time-consuming as it passed through three government departments before being deposited in the Road Fund. The ambitious institutional agenda of the project, as outlined in the PAD, remained relevant, but still had a long way to evolve at project closure. Taken overall, the project’s contribution to the institutional aspects was uneven. It is difficult to assess the outcome as opposed to the outputs from the information available and the extent to which progress can be attributed to the project.

\section*{Efficiency}

43. The ICR shows an ERR at appraisal of 21 percent based on 53 percent coverage of the original cost. The ERR at completion is shown as 26 percent, but since it only covers 10 percent of the original project cost and does not include overhead costs beyond the sub-project streams it is virtually meaningless. No economic appraisal was carried out for either the emergency works or the airport, and 49 percent of the project funds were cancelled. There is evidence provided to the IEG mission of increased efficiency in the usage of KIA and the increased traffic handled is shown in Table B1. The flood restitution works were also important. On the other hand the failure to reduce the backlog of road maintenance through 2,215 km of planned rehabilitation, which was dropped after restructuring, had serious consequences in terms of further deterioration of the main roads. At least 38 percent of the trunk roads remained in poor condition (the actual figure was likely higher, but not recorded) with negative implications for vehicle operating costs. Because of the restructuring, some of the softer sub-components were either dropped or given superficial attention. Given a project implementation period that nearly doubled from six years to almost twelve stretching out the period for institutional reform and diluting its effectiveness, and the continuance of an unsustainable road system, the project efficiency is assessed at best as modest.

\textsuperscript{57} ICR (Report 502) for the Second Integrated Roads Project July, 2007 (Page24)
Outcome

44. The outcome is assessed primarily against the PDO as amended at restructuring. Using a weighted average to assess the period under the original objective does not make a significant difference because only 11 percent of the funds had been disbursed at that point. Associated indicators were minimal and not monitored. The relevance of the objectives was sound, but the relevance of design was questionable due to its complexity and to a lack of insight regarding the Borrower’s real capacity, and the quality of the supporting systems available. The project struggled from the start due to this design problem and took nearly twelve years before closure instead of the planned six (with a hold on procurement of almost four years). Although some road and airport improvements were completed and important emergency repair works to flood damaged roads and bridges were undertaken, the project could not be implemented on the scale, at the level of complexity, or within the time frame envisaged in the original design. It also encountered serious governance problems in the beginning. Only 53 percent of the originally intended funds from the credit were disbursed. On institution building the Government was slow to follow up on some of the Bank's proposals, and several original project intentions— to improve road safety and multi-year programming capability, etc.—remained unfulfilled at closure. There were, moreover, some questions about efficiency since the ICR rate of return only covered a small number of sub-project components in addition to methodological shortcomings. The outcome rating is unsatisfactory.

Risk to Development Outcome

45. In 2007 when the ICR was prepared and reviewed some of the new institutions were not yet functioning effectively. Transfer of the development and maintenance of trunk and regional roads from the Ministry to TANROADS was incomplete seven years after the Agency’s establishment, and its autonomy was questionable. However, in the three years following closure these issues have to a large extent been resolved. TANROADS recently celebrated its tenth anniversary and now has 731 staff of which 272 are professional. Its independent Board was inaugurated in 2008 and has three representatives from the private sector. Of the 33,000 km of road for which it is responsible only 12.5 percent were in poor condition at mid-2010, compared to 17 percent in 2007 and 49 percent in 2004. This has been due to a combination of factors including better management, more predictable road maintenance funding and the low age of much of the paved roads. Thus there has been a steady and continuing improvement in the overall condition of trunk and regional roads.

46. The Road and Fuels Toll Act of 2006 enabled fees (mostly from a fuel levy) to be collected and deposited into the Road Fund Account. Road maintenance funding for routine maintenance has improved from 44 percent of needs in 2007 to nearly 70 percent in 2009. This followed an increase in the fuel levy of 100 percent in 2007/08. There is, however, room for improvement as there is still a backlog of periodic maintenance, although historically the Ministry of Finance has permitted the fuel levy to be increased from time to time when it is clear that the condition of the roads is deteriorating. Most routine maintenance needs are

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58 TANROADS tenth anniversary publication, page 13
covered. The Roads Board is now in a position to give details each year to the Government of the condition of the network so that informed and timely decisions can be made.

47. The rural VTTP component lacked a sustainable funding framework to replicate the pilot elsewhere. IEG’s discussions with stakeholders indicated that the pilot was accepted locally and was continued for a while by other development partners who liked the novel concept of reaching the really poor in remote areas, the reduction in head-loading for women, and the promotion of the use of intermediate means of transport such as donkey and canoe transport. However, it was also indicated to IEG that there was some political opposition to the sub-project’s non-conventional approach aimed at non-motorized transport in the face of huge needs for conventional road maintenance and other works when it came to prioritization of funds, and there were insufficient resources to roll out the concept nation-wide as had originally been envisaged. In the overall context of the project this pilot was a small component.

48. The risks to development outcome are significant.

Bank Performance

Quality-at-Entry: unsatisfactory

49. The need for the project to aid economic recovery in Tanzania was well defined and the Bank wished to continue with the SWAp concept in which many donors came together in a common program. However, the preparation team took on far too much in trying to tackle the huge needs in the transport sector underestimating the very real capacity constraints that existed. IRP-II came too soon after IRP-I (which was still ongoing) and so its design was based on the same framework, without any evaluation of the latter’s effectiveness and any lessons to be learnt. Prior to the integrated roads projects the annual road sector budget had been about US$20 million. The projected annual disbursements with IRP-II were to be an additional US$130 million, a more than six fold increase.

50. Many projects were not ready for implementation. The Borrower had not put in place proper financial and project management arrangements to support a project of this magnitude (in addition to the ongoing IRP-I), the local private sector driven construction industry was still inexperienced, reforms agreed upon under IRP-I had not yet been implemented, potential governance issues had barely been addressed, M&E arrangements were minimal, and risks, though identified, were totally underestimated.

Quality of Supervision: moderately unsatisfactory

51. Supervision began poorly and continued to be weak until restructuring and the El-Nino response gave the project a new focus. Several components were sensibly cancelled including the important Singida-Shelui road because of delays in preparatory activities for implementation and procurement. The Government also noted in its own ICR that the Bank did not engage it in appropriate dialogue to resolve emerging issues in a timely fashion. Special measures ought to have been devised to address procurement and disbursement problems.
52. After restructuring—and a four year cessation of procurement—there was an improvement. The Bank supervision team flexibly handled subsequent credit amendments for additional components such as the main road on Pemba Island, new feasibility studies, and the rehabilitation of Zanzibar International Airport runway. The latter activity could not be finished under this credit, however, due to poor performance by the contractor and procurement delays. Emergency repairs and maintenance were carried out under the follow-on Central Transport Corridor Project (CTCP1) and the rehabilitation itself was deferred until CTCP2, which is still active. While the supervision team made a substantial effort to bring the project to a conclusion, it could not overcome the initial poor communication and design flaws.

53. Overall Bank Performance: Based on unsatisfactory quality of entry and moderately unsatisfactory supervision, overall Bank performance is rated unsatisfactory in line with harmonized criteria.

**Borrower Performance**

*Government Performance: unsatisfactory*

54. While the Government was committed to its economic recovery program and provided counterpart funding when required, it was slow to undertake the crucial reforms necessary to enhance institutional capacity, many of which should have been implemented under IRP-I. The focus tended to be on physical infrastructure completion rather than on creating an appropriate environment to move forward. Poor governance impacted progress on IRP-II leading to a four year freeze on procurement by the Bank. Meanwhile the Wariobia Report recommended an overhaul of MOWCT and the removal of the management team. The low remuneration and motivation of staff became an obstacle to the achievement of results. A staff incentive program implemented as part of IRP-I was discontinued by GoT in 1996.

55. After restructuring, and with the establishment of TANROADS and an effective Road Fund Board, Government performance improved as it became less involved in operational detail and more involved with appropriate legislation and oversight. This was a transition, however, and the improvement was gradual. Nevertheless, there was a growing recognition of the importance of adequate funds for infrastructure maintenance, but this benefitted follow-on projects.

*Implementing Agency Performance: moderately unsatisfactory*

56. At the outset, MOWCT was the main implementing agency and seriously lacked capacity. There was inadequate preparation for the implementation of IRP-II, prolonged procurement processes, poor contract administration, poor financial management, and poor governance. After restructuring the project implementation became the responsibility of the new agency, TANROADS. The management of the restructured projects went comparatively well, reliable financial accounting procedures were adopted, and the road maintenance

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59 ICR Report 502, page 27
program was carried out successfully. Some other agencies were also involved in implementation. The Directorate of Civil Aviation successfully delivered the KIA sub-component and embraced critical reforms leading to improved performance, PMO-RALG also satisfactorily handled the VTTP pilot project. MoCT Zanzibar had a lower management and procurement capacity, but with close Bank supervision delivered one road project and three studies.

57. Overall Borrower Performance: Based on unsatisfactory government performance and moderately unsatisfactory implementing agency performance, borrower performance is rated unsatisfactory in line with harmonized evaluation criteria.
Appendix 1. Basic Data Sheets Tanzania Second Integrated Roads Project (Credit 2598-TZ)

Key Project Data (amounts in US$ million)

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<td>AFTPC</td>
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<tr>
<td>Subhash Seth</td>
<td>Consultant</td>
<td>AFTTR</td>
<td>Preparation of ICR</td>
</tr>
<tr>
<td>Farida Khan</td>
<td>Operations Analyst</td>
<td>AFTTR</td>
<td>Preparation of ICR</td>
</tr>
</tbody>
</table>
Appendix 2. Borrower Comments

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF TRANSPORT

Telegrams: "UCHUKUZI"
Telephone: 2114425
Fax: 255 022 2112751/2116032
Ref: KA 376/505/01

P.O. BOX 9144,
DAR ES SALAAM.

8th June, 2011

Monica Huppi, Manager
Public Sector Evaluation
Independent Evaluation Group
1818 H Street, N.W
Washington, D.C 20433
U.S.A

RE: TANZANIA: Second Integrated Road Project (Credit 2598 -TA); Central Transport Corridor Project (Credit 3888 –TA); Draft Project Performance Assessment Report.

Reference is made to your letter dated 25th May, 2011 which addressed the above mentioned subject.

I acknowledge the receipt of the draft Project Performance Assessment Report (PPAR) which evaluated the performance of the above two projects, a credit fund through World Bank. Generally, we found the report fairly done articulating achievements and low performed components from the two projects which had a substantial support to the development of transport sector in the past 10 years. Such low performed components in the two projects include; unsuccessful TRL concession, inadequate monitoring of the projects; low absorption capacity of road implementing agencies; lack of systematic transport planning that considered both rail and roads as competing modes etc. The realized achievements in the two projects include; establishment of TANROADS & Road Fund in 1998 and 2000 respectively; improved road condition (both trunk and rural roads); improved airports maintenance, support for improvement of TRL line and capacity building of staff during implementation of the projects.
We commend the achievements made in the two projects while understanding that the low performed areas will be taken seriously by the government for effective improvement of the management and monitoring of such projects.

We have attached few comments of the submitted draft PPAR (see Annex 1) for your review and consideration.

Thanking you for the cooperation,

John T. Mngodo
DEPUTY PERMANENT SECRETARY
Annex 1

Second Integrated Roads Project (IRP 2) and Central Transport Corridor Project (CTCP)

Comments on the Project Performance Assessment Report

i) Government is aware that both IRP II and CTCP were potential projects for the transport sector growth (through upgraded roads, improved airports and support to TRL concession) and particularly achieved road institutional reforms such as establishment of TANROADS & Road Fund. The reported failures of certain components of the two projects have been taken as a challenge for government towards improving the performance of the ongoing & future World Bank projects in Tanzania. The ongoing World Bank support projects include Central Transport Corridor Project and the Transport Sector Support Project (TSSP- IDA CR. 4724 -TZ). Importantly, government has already started to take action on proper monitoring of World Bank projects by improving financial management in its Agencies, monitoring framework and improve staff capacities dealing with procurements.

ii) The report addressed on inadequate monitoring of the two projects by the government. This set a lesson to Government on proper project planning prior to approval of any IDA funded project and specifically, need to set up proper project management and monitoring framework through realistic monitoring indicators. The project report will assist the government to improve efficiency in the implementation of the ongoing & future World Bank support projects.

iii) Pg 15 Table 3-2 shows data on Tanzania road crashes and casualties featuring two years only (i.e. 1995 & 2008) while Uganda featuring data from 1990 to 2007 (Table 3-3). This may not show the reader a clear comparison on road safety performance for the two countries. We are pessimistic if really data were not available for Tanzania.
iv) On Pg 34, Para 34 (Road Network management) the report indicates that 'A prioritized 10 Year Road Sector Investment Programme was established ...' We suggest the sentence to be revised and read as; A prioritized Road Sector Investment Programme which is part of the Ten Year Transport Sector Investment Programme – TSIP) was established based on economic criteria.

v) Pg 20 Para 3.3.4; the report informs that in the meantime an urgent decision is needed on whether or not to re-capitalise the existing railway. This statement is misleading as both the GoT and Transport Development Partners Group are aware of the current government plans to improve the existing central railway line. The statement tries to decline what is currently on the ground regarding the short and medium term plans to revitalize Tanzania’s existing TRL line. Government through the ongoing Transport Sector Support Project (IDA credit funded) is underway to develop a bankable central rail upgrading programme to assist RAHCO to improve the existing central railway line. The programme will explore what is known as; TRL business plan, the market strategy and investment funding required for revitalizing the TRL line at its short term basis.

vi) On Pg 19 Para 3.26, the report addresses on the existing dialogue between the Bank and GoT regarding private sector participation in project development. We wish to justify further by indicating that policy and legal framework on PPPs have already been put in place by the Government. PPP Policy (2009); The PPP Act (2010) and the recent completed PPP Act Regulations (2011) are potential government machineries to enable private sector support infrastructure and operations in Tanzania. The institutional arrangements for PPPs have been put in place after the established PPP Fiscal Unit in Ministry of Finance and the PPP Coordination Unit in Tanzania Investment Centre. PPP Units have been planned to be formed in each contracting authorities as addressed in the PPP Act. The government additional plan is to improve staff capacities on PPPs through capacity building funds allocated under component D of the ongoing TSSP (IDA funded).
vii) Pg 24 Para 4.8 (fourth bullet): Government is aware of the complimenting two modes of rail and road particularly poor performance of railway of which only 5% of Tanzania bulky goods are currently being transported by rail. This is contrary to transport policy objectives and thus, efforts are being made to improve TRL railway infrastructure to enable 95% of the heavy goods on the road shift to the railway.

viii) Pg 24: The intention of CTCP was to support TRC operation to be run by private sector concession and avoid much of the railway operations depend on public subsidies. However, the concession failed to reach its expectation in its 3 years of operation through RITES/GoT concession agreement. As a matter of improving the operations, Government is underway to review the infrastructure, management, monitoring structure and financial capacities of the lowly performed concessioned TRL. This will also involve concessioned Kilimanjaro International Airport (KIA). Under this initiative, government has already secured all shares of the low performed operators of the two concessioned government entities.
Annex B. Tanzania Central Transport Corridor Project (Credit 3888-TA)

Principal Ratings

<table>
<thead>
<tr>
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<th>ICR*</th>
<th>ICR Review*</th>
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</table>

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

<table>
<thead>
<tr>
<th>Project</th>
<th>Task Manager/Leader</th>
<th>Division Chief/ Sector Director</th>
<th>Country Director</th>
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<tbody>
<tr>
<td>Appraisal</td>
<td>Dieter Schelling</td>
<td>Sanjivi Rajasingham</td>
<td>Judy O’Connor</td>
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<td>Completion</td>
<td>Dieter Schelling</td>
<td>Sanjivi Rajasingham</td>
<td>John McIntire</td>
</tr>
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</table>
Summary

Project Objectives

1. The Tanzania Central Transport Corridor Project followed on from the Second Integrated Roads Project. It covered some components that could not be finished under that credit, with some new ones added such as a railway component and the upgrading of Zanzibar Airport. Its objective was to upgrade strategic road and rail links of Tanzania’s central transport corridor; ii) enhance the Borrower's road management capacity; and iii) improve the operations of Tanzanian Railway Corporation (TRC) and the Tanzania Zambia Railway Authority.

Main Findings

2. This project is not easy to rate because relatively successful road and ferries/institution building components were combined with an unsuccessful rail component (the private sector concession failed). There was mixed performance for the development objectives (one high, one substantial and one negligible). Relevance was high for the roads, but modest for the railways because of design issues. Despite the delays, efficiency was still substantial, with the roads results outweighing those of the railways. On balance the overall outcome rating is moderately satisfactory. The risk to development outcome is significant. Here, the main risk is to the sustainability of the improved road condition. Because of the deterioration of the railways, the heavy goods vehicles on the central road corridor now carry about 95 percent of total freight traffic in the region and, thanks to substantially higher than anticipated traffic volumes, the trucks are wearing out the road more quickly than expected leading to a shorter life span and higher road maintenance costs. Despite the increased revenue to the Road Fund, only two thirds of maintenance needs for the main roads are covered.

Lessons

3. When two modes such as road and rail are competing for freight traffic in the same corridor an improvement or deterioration in the one mode will affect the traffic using the other. This has implications for transport policy and strategy and should also be built into the risk analysis before an investment is made.

4. Rehabilitating and reforming rail systems is a demanding and complex undertaking that normally requires dedicated staff and expertise. This should be accomplished through an exclusive and separate operation, and not tacked on to an existing road project. In the case of competing transport modes, key decisions need to be made about infrastructure provision. If the railways are to be shut down, the roads must be built with stronger pavements. If the railways are to continue functioning, then serious investment is necessary, and the willingness to bear some of the cost by mining companies and other major users and stakeholders assumes importance. The balance between road and rail can be altered by regulation, but before taking such action a thorough cost benefit analysis is needed.
5. Public private partnerships will only be successful if there are real opportunities for gain by both parties, as was the case in the port of Dar es Salaam. If, as in the railway case, the track is old, the equipment worn out, and the market forecasts uncertain, top quality investors will not be interested unless there is a subsidy from Government.

6. Contingency plans are necessary when concessions are considered to determine the strategy that should be followed in the event of delay or lack of interest. It is in such a hiatus that institutional capacity can become weakened and maintenance neglected.
Context of the Project

7. The Central Transport Corridor Project (CTCP1) was a follow-on project to the Second Integrated Roads Project (IRP-II). It covered the Singida-Shelui road dropped from that project, and made provision for emergency pothole and crack-filling repair work to the runway at Zanzibar Airport.

8. This runway should have been completed under the previous project, but due to poor performance by the contractor the contract was cancelled with only 15 percent of the work executed. Full runway rehabilitation was not carried out under CTCP1, however, because, cognizant of a significant increase in airport usage (see Table A1) and with the wisdom of a Transport Sector Master Plan drawn up under IRP-II, MoCT Zanzibar devised an alternative strategy with which the Bank was in agreement. The plan (now under implementation as part of CTCP2), is to use the existing runway as a taxiway once a new parallel runway is constructed. Also under IRP-II, detailed design was undertaken for the upgrading of three roads in Zanzibar, all important to support the island’s tourism sector. These works were carried out under CTCP1.

9. In addition new components and revisions were added covering ferries, railways, the design of over 700 km of additional road works, and institution building.

Objectives and Components

OBJECTIVES:

10. CTCP1, according to the PAD, aimed to improve both road and rail transport in the central corridor, improve key road projects in Zanzibar and generally enhance road management capacity. The DCA states the objectives as follows:

“To i) upgrade strategic road and rail links of the Borrower's central transport corridor; ii) enhance the Borrower's road management capacity; and iii) improve operations of Tanzanian Railway Corporation (TRC) and the Tanzania Zambia Railway Authority (TAZARA).”

11. Although the meaning is essentially the same, IEG will use the DCA objective since it is easier to monitor and specifically refers to the railway entities by name.

12. The project objectives were not revised during implementation.

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60 Second Central Transport Corridor Project, PAD, Report 43399-TZ, April 2008.
61 This solution has three main advantages i) the current runway is too close to the terminal building and the revised plan will ensure sufficient security margin and space for parking aircraft; ii) the taxiway extending to the full length of the new runway will substantially increase airport capacity; and iii) since the runway will be longer, it will accommodate larger aircraft.
COMPONENTS:

A. Upgrading of strategic road links in mainland Tanzania and Zanzibar aimed at providing better access to isolated rural areas, the promotion of tourism and a reduction in export costs. (Appraisal cost US$70.71 million; actual US$88.49 million).

i) Rehabilitation of the Singidia-Shelui section (110 km.) of the central transport corridor, including preparation of an Environmental Management Plan (EMP) and a Resettlement Action Plan (RAP)

ii) Rehabilitation and upgrading of the Mkwajuni-Nungwi, Matemwe-Pongwe and Paje-Pingwe-Michamvi roads in Zanzibar (56 km.), including preparing an EMP and a RAP.

iii) Carrying out feasibility studies, detailed design and bidding documents for 713 km. (four sections) of high priority trunk roads to be rehabilitated and/or upgraded under proposed follow-on projects. The Nordic Development Fund (NDF) financed the design of three of the further sections (US$6.05 million) namely, Singidi-Babati-Minjingu, Dodoma-Babati, and Tanga-Horohoro.

iv) Rehabilitation or replacement of ferries (i.e. motor vessels Kigamboni, Pangani, Sengerema, Kilombero, and Rufiji).

Revisions to Component A

i) Three variations were added to the Singida-Shelui road rehabilitation works contract: a) 3.3 km. of roads in Singida municipality; b) installation of a weighbridge at Njuki at km. 6.1. and; c) construction of a box culvert at Iguguno.

ii) Pothole and crack repair at the Zanzibar Airport to keep the runway in serviceable condition until rehabilitation works could commence.

iii) Coverage of detailed design and bidding documents of high priority roads was expanded to cover four more road sections.

iv) A new activity, performance-based management and maintenance road (PMMR) pilot projects in Mwanza, Rukwa, and Tanga was added after Mid-term Review. The PMMR design work was funded through a Trust Fund. This activity was to have been undertaken as part of another project that was delayed.

B. Enhancing road management capacity specifically for the Tanzanian Road Agency (TANROADS) and the Ministry of Communications and Transport Zanzibar (MoCT). (Appraisal cost US$14.83 million; actual US$6.49 million).

i) Design and construction of new TANROADS headquarters building

ii) Setting up of a Wide Area Network (WAN) and Local Access Network for TANROADS to improve communication between headquarters, its regional offices, and MoCT Zanzibar.

iii) Carrying out of a study for the enhancement of the organization and management (O&M) of TANROADS.

iv) Conducting studies to identify road investment priorities, such as traffic counts and an update of the ten-year investment plan.

v) Carrying out a local government inventory and condition survey

vi) Undertaking other transport-related studies including a Dar-es-Salaam Bus Rapid Transit and traffic management study.

vii) Provision of technical advisory services and training for improved management and operational capacity of TANROADS and MoCT.
Revisions to Component B

i) The design and construction of the TANROADS building did not materialize because its location was moved, resulting in a change in design. This could not be completed before project closing.

ii) After the restructuring of TANROADS the O&M study was cancelled because the agency did not think it was necessary.

Seven other studies were added: baseline traffic count on the mainland road network; road maintenance concession study in mainland Tanzania; Zanzibar Master plan and transport policy study; Zanzibar international airport Master plan; baseline study of user satisfaction at Zanzibar Airport; feasibility study and detailed engineering design for seven airports; and a road fund “leakage” study.

C. Improved performance of the Tanzanian Railways through engaging the private sector in the operations and financing of the rail sector. (Appraisal cost US$36.46 million; actual US$27.32 million).

i) Provision of urgently needed rails, sleepers, and other material for TRC for the replacement of track between Itigi and Tabora (immediate requirement).

ii) Provision for TRL as above to be supplied after concession of rail operations.

iii) Preparation of an environmental and social assessment, EMP and RAP for TRC.

iv) Financing of clean-up costs based on the above assessments.

v) Provision of technical advisory services and training for the future private sector participation in TAZARA including restructuring, establishment of a regulatory framework and preparation of assessments and plans.

Revisions to Component C

The technical advisory services for TAZARA were cancelled because the Tanzanian and Zambian governments were undecided on whether or not to support a further concession arrangement. The supply of 197 km. of sleepers had to be reduced to 127 km. due to the increased cost of steel.

Implementation Experience

Project Cost

13. The estimated project cost at appraisal was US$138.07 million and the amount disbursed at closure was US$133.64 million. The planned technical advisory services to TAZARA were cancelled (see paragraph 97). Less than half of Component B was spent because the construction of the TANROADS headquarters did not go ahead, and the O&M study for TANROADS was also cancelled. However, the ferries and roads cost more than anticipated.

Financing

14. The revisions to the components were substantial and although the project was not officially restructured there were four re-allocations of credit proceeds between April 2007 and November 2009. The IDA Credit of US$122.00 million was fully utilized. NDF disbursed US$ 5.13 million against US$6.05 million planned. The NDF financed part of the feasibility work and the design and preparation of bidding documents for selected road sections.
Borrower Contribution

15. The Borrower spent US$6.20 million as opposed to the US$10.02 million planned.

Dates

16. The project was approved on April 29, 2004, became effective on August 27, 2004 and closed on December 31, 2009 as planned.

Fiduciary Aspects

17. A dedicated unit within TANROADS became responsible for the overall financial management and coordination of the entire project and reported regularly. Audits were undertaken annually and on-time. All audits were unqualified except in 2007 when there were detailed issues such as under-reporting of counterpart funds and non-recognition of gains in exchange rate fluctuations, as well as differences between opening and closing balances of general ledger and bank statements. The Bank’s financial specialists worked out a plan with TANROADS to remedy the problem areas before the next audit and they did not re-occur. Procurement management was carried out in accordance with Bank procedures.

Environmental and Social Safeguards

18. The project was designated as “A” category. Full environmental and social assessments were carried out during preparation. The environmental impact of the road works was soundly mitigated as a result of standards and guidelines developed for all transport contracts under IRP-II. The Involuntary Resettlement Policy (OP 4.12) was triggered for Zanzibar because of land purchases and a resettlement framework and RAPs for roads were implemented based on procedures and guidelines outlined in the governing policies. All compensation claims and grievances were settled. Some 870 persons were affected at a cost of TZS 250 million.

19. For the rail component a condition of disbursement was a satisfactory environmental and social assessment. The environmental clean-up of the main workshop facilities in Dar es Salaam was completed by the Reli Assets Holding Company (RAHCO) and inspected by an environmental expert. Cleaning-up of the Mwanza and Kigoma facilities was completed using IDA funds only in December 2009, however, after GoT failed to provide the funds for this activity. A Resettlement Action Plan (RAP) was prepared for the railway component since 145 project-affected people were identified living near the rail right-of-way who could be affected due to increased train speeds. Since the reverse happened, and train speeds fell due to the deteriorating condition of the railways, the risk did not materialize, and the RAP was never implemented.

Unintended Impacts

20. The non-performance of the concessionaire and the subsequent collapse of the concession agreement affected the outlook of the GoT towards further railway
concessions and this effectively stopped further consideration of the concession of the TAZARA railway.

21. The ICR claims that the much greater than expected heavy truck traffic on the Central Corridor Road was an unintended impact, wearing out the road faster and leading to higher maintenance costs. Inasmuch as the further decline of the railway had not been foreseen, this may be partly true, but IEG argues that some of the rail freight would have switched to road anyway once the roads were improved, and that substantial generated traffic, especially to and from neighboring states, should also have been anticipated and, therefore, a stronger road pavement should have been designed.

22. A further impact which needs attention, but was unintended, is the accident “black spot” created at the foot of the Sekenke escarpment between Singida and Shelui. The escarpment is steep and heavy vehicles sometimes fail to engage low gears or travel too fast resulting in severe accidents at the bridge at the bottom of the descent (Sekenke Bridge 1). The IEG mission noted that the railings and crash barriers were completely missing where such accidents kept occurring. Local police records examined by IEG showed that 49 fatalities and 62 injuries had occurred at this location since the road was completed in 2008. The total number of accidents was unknown because many non-injury accidents were not recorded.

23. The police regularly check the condition of vehicles before they begin to descend and TANROADS has installed warning signs, rumble strips and speed humps with the intention of slowing down the traffic. As part of the works, the contractor constructed sand trap escape lanes for runaway vehicles. When IEG visited the site two vehicles were being extracted from these traps indicating that, while they are definitely working, there is still an ongoing problem with trucks driving too fast. Deeper investigation of this problem is necessary. It needs to be established whether the incidence of accidents has decreased since the remedial measures were introduced, and what further actions may need to be taken. For example, it may be necessary to enforce trucks to come to a complete stop before beginning the descent.

**Monitoring and Evaluation (M&E)**

*Design*

24. While it is not always possible to foresee everything in a complex project, it is somewhat unusual to see that there were four significant amendments to the Credit Agreement suggesting that there was insufficient timely planning, and a tendency to add requests during implementation to avoid creating the necessity for further projects. For example, four additional studies were added including airport planning; the emergency repairs at Zanzibar airport; and considerable further road design work. A new activity, performance-based management and maintenance road pilot projects in Mwanza, Rukwa, and Tanga was added after Mid-term Review.

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62 40 of the fatalities occurred in one bus accident.

63 It may be possible to examine further countermeasures in the currently active Transport Sector Support Project (P055120) PAD Report No 53152-TZ, May, 2010 which has a road safety component.
25. The M&E framework contained some appropriate outputs, intermediate and outcome indicators pertaining to the various components and linked to the development objectives. The design also outlined methods to keep track of project progress.

26. For the roads, M&E was focused on traffic growth and road condition. It did not attempt to measure the impact on tourism or a reduction in export cost. While traffic growth would certainly be affected by road improvements, it would also have been affected by a number of exogenous factors such as economic growth or a decline in the service of the railway as the competing transport mode. There was therefore an attribution problem. Normally the efficacy of a road improvement is assessed through changes in vehicle operating costs and travel speed such as was used for the ERR calculations.

27. On the rail side, although indicators provided were useful, the M&E design could have included more performance measures to arrive at quick corrective actions, if needed. For example, additional targets such as wagon turnaround time, and business offered each month by the railway's main customers. The time taken between the request and supply of wagons would also have been useful. With the additional indicators there would have been a clearer picture sooner of the railway's declining trend.

Implementation

28. M&E was implemented consistently with the agreed designs and data collected were verified for accuracy, where possible, by comparing data from different sources. The information gathered was coordinated and tracked through supervisory and quarterly reports.

Utilization

29. The data such as road condition, freight tons conveyed, and length of railway tracks under speed restrictions, were utilized by the Bank and all agencies involved with the project at regular meetings.

M&E overall was substantial.

Relevance

Relevance of objectives

30. Some of the original sub-project development objectives designed in 2004 were flawed (outputs rather than outcomes), but were clearly aimed at improving the transport performance in the corridor. This reflected the Government’s National Transport Policy approved in 2003, which aimed to reduce costs and improve the service standard. The PDOs supporting economic growth and reducing bottlenecks were in line with the CAS at the time and remained relevant to the CAS of 2007-2010. In addition the PDO is related to the Tanzania National Strategy for Growth and the Reduction of Poverty, which refers to reducing infrastructure bottlenecks and improving access to economic and social services. The railway sub-objective, surprisingly, referred only to improving the
operations of the railways and not to a concession to the private sector, which was a crucial part of the project description. Relevance of objectives is substantial.

Relevance of design

31. Overall, the design was modestly relevant to achieving the objectives. The road component focused on improving road condition in the critical central corridor and on road management capacity. The rail component was focused on assisting the Government to award a concession to the private sector. Despite the alleged urgency of addressing the critical state of the railways, the decision to combine the road and other components with the rail concession in one project, however, is questionable. While this was justified by reducing Bank transaction costs, the decision to have one composite project (covering roads, airports, railways and ferries) added significantly to design complexity and it deprived the difficult railway component of a dedicated team of rail specialists (the project team contained only one consultant railway expert during both preparation and implementation and no change management specialist). Moreover, the project could have been better designed by including a contingency plan for a possible delay in the concession process. These weaknesses eventually reduced the benefits that the project could have generated. Relevance of design is modest.

Efficacy

Upgrade strategic road links high

32. This sub-objective is really an output, not an outcome. Normally, the efficacy of road investments is measured through reductions in vehicle operating costs and improvements in travel speed. However, traffic growth was used as the main indicator in this case. There is an attribution issue here, since changes in economic growth and the level of service offered by rail also affect traffic growth. The growth is, nevertheless, substantial and it is likely that the road improvements were responsible to an important extent. For example, at the project completion stage, the traffic on the corridor road section had more than doubled, well over the target of ten percent per annum estimated for 2009. The Average daily traffic in 2002 (used in the PAD in 2004) was 221. By March 2010 (ICR) it had grown to 759 and figures given to the IEG mission in October 2010 showed 848. Moreover, 67 percent were heavy vehicles and nearly 40 percent of such traffic travelled at night. Since the Singida-Shelui road completed the entire corridor to bitumen standard from Dar es Salaam through to neighboring states such as Rwanda, Burundi and the DRC, it is not surprising that it generated significant traffic. The road improvements also undoubtedly improved economic and social benefits to the local population, but these benefits were not measured. Time savings averaging 87 minutes per vehicle are used in the economic analysis at completion, but detailed vehicle operating costs are not shown since there are multiple values depending on differing roughness values and vehicle types using each section. Aggregate savings were US$86.5 million.
33. In addition, the strategic links were enhanced by the successful rehabilitation of three existing ferries and the procurement of two new ones for key river crossings.\(^{64}\) Figures made available to the IEG mission for two rehabilitated ferries (one large and one small) show an increase in usage by adult passengers of between 40 and 50 percent (see Table B1 below). A feasibility study looked at whether it would be possible to concession the more viable ferries, but the low fares charged per passenger prohibit this. The ferries are regarded by GoT as part of the connectivity of the road system, and charging economic fares would be detrimental to poor local people with limited options.

Table B1 Tanzania: Ferry Passengers at two river crossings 2003/04 – 2009-10

<table>
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<th>Year</th>
<th>Kigamboni Ferry Dar es Salaam</th>
<th>Sengerema Ferry Mwanza</th>
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<tr>
<td></td>
<td>No. Adult passengers/month</td>
<td>% increase</td>
</tr>
<tr>
<td>2003/04</td>
<td>571,512</td>
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<tr>
<td>2009/10</td>
<td>1,129,512</td>
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<td></td>
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<td>No. Adult passengers/month</td>
<td>% increase</td>
</tr>
<tr>
<td>2003/04</td>
<td>16,462</td>
<td>—</td>
</tr>
<tr>
<td>2009/10</td>
<td>25,008</td>
<td>41%</td>
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</table>

Source: Tanzania Electrical, Mechanical, and Electronic Services Agency

34. The performance-based maintenance and management pilot projects and the preparation of feasibility studies, detailed design and bidding documents were all completed as planned.

35. On the island of Zanzibar three sections of road were improved. These were aimed at improving the access to over 70 of the main hotel and resort sites and in some cases have more than halved the time taken to get to them from the airport, resulting in a time saving of an hour or more per journey. Aggregate savings in time and vehicle operating costs were US$44.6 million. Sharp increases in traffic volumes were reported in the ICR and the trend is continuing according to data provided by MoCT Zanzibar to the IEG mission. The tourism industry is the main source of employment on the island. Repairs were also made to the airport runway to keep it usable while a more substantial upgrade is planned and implemented.

36. The proportion of all roads in poor condition under TANROADS responsibility (28,900 km.) regardless of funding source was reduced from 49 percent in 2003 to 15 percent in 2009, well over the target of 30 percent. Contributing to the improved condition of the road network of Tanzania is the fact that the rehabilitation of many of the roads for which design and bidding documents were prepared under the project was subsequently implemented using either IDA funding or that of other development partners.

37. A new activity, the performance-based management and maintenance of road pilot projects (PMMR) was added after the Mid-term Review with contracts commencing

\(^{64}\) Following the construction of a permanent bridge at Rufiji, this ferry was transferred to the Mwanza region where it is operating at the Nyakalilo – Kome river crossing.
in August, 2007 through September, 2008. These pilots could not be completed under the project, but US$15.9 million had been disbursed by project closure. The works are being completed using Roads Board funds after which they will be evaluated.

To enhance road management capacity substantial

38. Based on the improving condition of the road network, the scale of the road program being managed and the increase in available road funds, road management capacity has improved substantially. The capital investment program amounted to US$859.2 million between 2008 and 2010. At the same time road network maintenance has been substantially enhanced, as reflected in the higher percentage of roads no longer in poor condition (see above). The revenue from the Road Fund has grown from US$60 million a year to over US$200 million, making it one of the largest of such funds in Sub-Saharan Africa. Procurement management, handling of safeguards issues and financial management have all improved according to Bank specialists, and audits did not have to be qualified.

39. Various technical assistance activities were also completed. These included an inventory and mapping of local government roads, a Dar es Salaam Bus Rapid Transit and traffic management study, as well as training and short term appointments of critically needed staff for TANROADS and MoCT Zanzibar. The setting up of a wide area network (WAN) to improve communications between TANROADS headquarters, its regional offices and MoCT, Zanzibar, were substantially completed. Only two of the planned 38 stations could not be connected because there was no service provided to those areas by the Tanzania Telecommunications Company. A consulting firm is to be engaged to carry out a technical audit with a view to improving system efficiency further.

40. On the other hand, the contract for the design and supervision of the construction of the TANROADS Head Office was signed, but the implementation was cancelled after delays due to a change in the location of the building as it was situated far from Government ministries. This distance factor was known earlier, but at that time no difficulties with the location were raised. The new decision necessitated a complete redesign and fruitless expenditure which meant that the works could no longer be completed before the planned credit closure. An O&M study was cancelled at TANROADS request as being no longer relevant.

To improve the operations of Tanzania railways negligible

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65 The PMMR design work was funded through a Trust Fund. This activity was originally to have been undertaken as part of another project that was delayed. The traditional way of contracting out road maintenance is based on the amount of work being measured and paid for on agreed rates for different work items. These are also referred to as unit price contracts. By contrast, Performance-Based Road Management and Maintenance Contracts define minimum conditions of road, bridge, and traffic assets that have to be met by the contractor, as well as other services such as the collection and management of asset inventory data, call-out and attendance to emergencies, and response to public requests, complaints and feedback. Payments are based on how well the contractor manages to comply with the performance standards or service levels defined in the contract, and not on the amount of works and services executed.

66 Now under implementation as a component of the Second Central Transport Corridor Project; see PAD, Report 43399-TZ, April, 2008
41. At appraisal Tanzania had two railway companies. The Tanzania Railways Corporation (TRC) with 1m gauge and the Tanzania-Zambia Railway Authority (TAZARA) with a 1.067 m gauge. The goal was to improve the performance of the railways through engaging the private sector in the operations and financing of the railways. The rail tonnage conveyed by TRC showed a downward trend from 2003 when 1.45 million tons were carried. By 2005 there had already been a decline of 20 percent in freight traffic and this trend continued through 2007.

42. In 2007 Rail India Technical and Economic Services Ltd (RITES) won the contract from the Parastatal Reform Commission to operate the railway on a concession basis for 25 years. It had been anticipated that the International Finance Corporation (IFC) would be a potential lender and provide a partial risk guarantee of up to US$40 million, but IFC objected to the choice of local partner, GAPCO, Tanzania, Ltd, because this company was in arrears to IFC in respect of payments on another investment. There was also concern about the accuracy of the asset records of the Reli Assets Holding Company (RAHCO) to which the assets of TRC had been transferred. TRC became the Tanzania Railway Ltd (TRL) and GoT took over GAPCO's role giving it a 49 percent stake. The concession signing was delayed for two years before being finally awarded to RITES. This was also partly due to a legal challenge from another potential bidder that had to be settled in court. Although this case was dismissed all these obstacles added to the delays and there was no interim strategy to mobilize bridging funds while these events unfolded.

43. After the concession agreement was signed, the Government and the concessionaire did not work together to solve the problems and improve the railway operations. Instead, they blamed each other for the deteriorating performance resulting in a complete paralysis of action. In 2010 GoT terminated the contract with RITES and resumed control. GoT released some funding for urgent repairs following heavy rains and flood damage, but this made only a small dent in the backlog of nearly 2,000 km. of track needing rehabilitation at a cost of at least US$400 million. By 2009 the volume of freight carried had shrunk to 0.45 million tons with the road transport improvements attracting away further traffic. Had the concession become operational in 2005 this pattern might have been arrested with a rationalization of services and tariffs and an aggressive marketing strategy. But as the ICR says with candor, "The two year delay accompanied by an absence of investments by the Government and a sound safety net for the remaining staff, led to a deterioration of railway infrastructure, low staff morale, increased thefts and vandalism, increased strikes and other irresponsible acts." IEG observes that the amount eventually paid by GoT to retrenched staff was $16,000 per person, nearly 30 times Tanzania's annual per capita income.

44. Under the IDA-funded project, rails, sleepers and fittings were procured and delivered for the replacement of 127 km. of track, (but this length was 70 km shorter than

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67 Much of the rail network of TRC was originally built in the 1920s with some extensions in alter years; TAZARA was a turnkey project financed and executed by China; it opened to traffic in 1976
68 The concessionaire was supposed to pay over US$ 6 million to GoT, but refused on the grounds that RAHCO was supposed to have 92 working locomotives and only 55 apparently existed
69 ICR Central Transport Corridor Project, Report 1299, June, 2010, page 16
planned because the increased price of steel reduced the amount that could be bought with the available funds. The various environmental and social studies and plans were completed, as was the environmental clean-up work.

45. The sub-component for the provision of technical advisory services for the future private sector participation in TAZARA did not proceed, following the experience with TRL and because of possible prospects of direct Chinese investment as an alternative. The Tanzanian and Zambian Governments remain undecided as to whether or not to support a concession arrangement and the preference of the two Governments is to award the concession (should there be one) to a Chinese firm without an internationally competitive process. This is justified on the basis of significant outstanding liabilities by Tanzania to the Chinese Government and the high cost of retrenchment based on precedent.

46. The portion of the Credit allocated to this sub-component was utilized for other activities. TAZARA, like TRL, continues to perform poorly.\textsuperscript{70}

\section*{Efficiency}

47. For the Singida-Shelui road two assessments were made. The re-gravelling option showed an ERR of 12.1 percent at appraisal and 19.7 percent at closure. However, against the do nothing option the ERR was 24.3 percent and 34.6 percent for bitumen resurfacing showing this was the best course of action. The much higher rate of return at completion is due to the higher than expected traffic volumes, but, as discussed under risk to development outcome, this may result in a shorter pavement life.\textsuperscript{71}

48. The Zanzibar road improvements gave an ERR of 14.1 percent at appraisal and 16.1 percent at closure. The ferry improvements showed high increases in usage of between 40 and 50 percent, but no ERR was calculated. On the other hand the fruitless expenditure on the proposed new headquarters building was inefficient.

49. For the railways the ERR at appraisal was 48 percent, but at closure only 10 percent (and falling with a negative NPV). The average project ERR weighted by component cost is 24.2 percent, which despite delays that were factored in, is still well above the threshold for acceptability. No financial rate of return was made available by the rail concession partners, but the lack of enthusiasm to take the concession forward likely meant that it was poor. Overall the positive results for the roads, which represented the largest share of the project, outweighed those of the railway and efficiency is accordingly rated substantial.

\textsuperscript{70} Transport Sector Support Project, PAD, Report 53152-TZ, May, 2010, page 4

\textsuperscript{71} No sensitivity analysis was done in the PAD for a shorter pavement life although variations for one percent above and below the estimated traffic growth rate were given. The ICR appears to have factored in a higher traffic growth rate, but underestimates the impact of increased damage to the road by heavy trucks.
Outcome

50. This project is not easy to rate because relatively successful road and ferries/institution building components were combined with an unsuccessful rail component. There was mixed performance for the development objectives (one high, one substantial and one negligible). Relevance was high for the roads, but modest for the railways because of design issues. Despite the delays efficiency was still substantial, with the roads results outweighing those of the railways. On balance the overall outcome rating is moderately satisfactory.

Risk to Development Outcome

51. With regard to the improved roads, the main risk is to the sustainability of the improved road condition. The heavy traffic on the central road corridor now carries about 95 percent of total freight traffic in the region and, thanks to substantially higher than anticipated traffic volumes, is wearing out the road more quickly leading to a shorter life span and higher road maintenance costs. This is likely exacerbated by truck overloading, although TANROADS has increased the number of weigh-bridge stations on the paved trunk roads. Despite the increased revenue to the road fund, only two thirds of maintenance needs for the main roads are covered. The deterioration of the railways has doubtless worsened this situation by making the road mode more attractive. (This adds to IEG's concern about the use of traffic growth as a KPI).

52. TANROADS has demonstrated its capability to manage large road programs successfully, but both TANROADS and MoID were criticized in a recent audit report for inadequate designs leading to cost overruns and for frequent extensions of time granted to contractors in road projects.72

53. Before the roads were improved TRC provided transport for many small customers because there was no viable alternative. Typically this kind of traffic is not profitable for railway companies, which need to concentrate on bulk, large-volume customers. The Government needs to develop a strategy on how to control and charge appropriate fees for heavy trucks to ensure provision of sufficient funds to cover road maintenance needs.

54. Subsequent to the nonperformance of TRL after the concession and the collapse of the concession agreement, some resistance in Government has developed to the concept of awarding concessions. TRL performance could still be improved with more appropriate institutional arrangements, preferably involving private participation on a sounder basis, but some US$400 million would have to be found in the short to medium term for railway rehabilitation if the infrastructure is to be sustained. The railways will also need to focus on traffic for which it has a cost advantage, and adopt a vigorous marketing strategy as there is a clear danger of losing these rail assets entirely.

72 Audit Report on road works: National Audit Office, March 2010
55. This said, alternative ideas are under consideration. In March 2010 there was a conference in Dar es Salaam on the need to revive the East African railways. The discussions centered on the shortcomings of the existing concession model, the huge undercapitalization of the existing railways, and the absence of a regulatory framework for balanced competition between road and rail freight haulage. A report funded by the US Trade and Development Agency has advocated a new standard gauge railway, but since this is likely to cost in the region of US$5 billion, it remains to be seen whether this proposal will be viable and whether the private sector will be willing to contribute.

Risk to Development Outcome Rating: significant

Bank Performance

Quality at Entry

56. During project preparation there was widespread consultation. The preparation of the road and ferry aspects was generally well handled, but it is questionable whether the road and rail components should have been combined into one project; in any case there could have been better harmonization between the road and rail components which impacted on each other. More detailed sensitivity studies in respect of both rail traffic forecasts and the time frame for the concession were warranted. There could have been a more thorough risk analysis. There was no fall back plan to deal with declining rail traffic, urgent maintenance needs and slippages in concession targets. With regard to the roads, the choice of traffic growth as a key performance indicator was problematic because of attribution issues.

57. In hindsight the pavement design for the Singida-Shelui road should have had a stronger design since the road was bound to generate substantial heavy vehicle traffic. The original traffic volumes were estimated under IRP-II and should have been re-visited before implementation of CTCP1. While the demise of the railways was not foreseen as the project was supposed to have improved them, the through road freight traffic generated by the completion of the road corridor should have been taken into account. Quality at entry was overall moderately unsatisfactory.

58. Supervision

59. Supervision missions were relatively intensive during the first four years of implementation and on the road and ferry aspects was well handled, but on the rail side it is alarming that the project ratings throughout implementation (except for the last one before project closure) were flagged as satisfactory, when events were clearly going wrong. As the ICR says "In retrospect, the team could have pushed for more drastic measures earlier to turn the situation round, but its leverage was tenuous in a politically difficult situation". To some extent interventions were restricted by the ongoing

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73 East African Railways Conference, Dar es Salaam, March, 2010
75 ICR Central Transport Corridor Project, Report 1299, June 2010, page 21
concession process, but given the gravity of developments as they unfolded there was good reason to bring the project to the attention of senior management of the Bank. For instance the urgency of settling the dispute over appropriate pension benefits for affected railway employees could have been raised, since the poor morale had a disastrous effect on staff performance. The Bank team could have been strengthened with additional individuals with railway or negotiation expertise, although this would have been difficult in the absence of a separate rail project. The road components were well supervised, especially the safeguard aspects, and the supervision team was flexible and helpful in accommodating additional requests. Rating is moderately satisfactory.

60. Overall Bank performance is moderately satisfactory.

**Borrower Performance**

*Government*

61. The Government showed strong commitment during the preparation stage by advancing the TRC railway concession through pre-qualification and agreeing to move TAZARA in the direction of privatization. The government also raised the fuel levy substantially, and promulgated a Road Act that set out clearer responsibilities for the various stakeholders. Nevertheless, the fund fell short of covering maintenance needs due to the size of the maintenance backlog that had been allowed to build up. The Government provided counterpart funding as and when required.

62. On the other hand, during the delays in the unexpectedly protracted railway concession process, the Government ignored the deteriorating state of TRC and when the GoT became the minority shareholder it did not work pro-actively to fulfill the preconditions to activate IFC's loan for improving TRL performance. A strong anti-privatization lobby emerged within the GoT. The Government also did not handle the retirement benefit of the staff retrenchment or the transition for those selected to the new company appropriately. The retrenched staff had to agitate over a long period for a satisfactory compensation package. During this period, staff morale was affected leading to strikes and property theft; this significantly contributed to the poor performance of TRL. Rating **moderately unsatisfactory**

*Implementing Agencies*

63. There were multiple implementing agencies under the project. For the roads it was TANROADS and in Zanzibar MoCT; for the ferries it was the Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA) and for aviation the TAA. All these agencies performed satisfactorily, on time, and with a satisfactory outcome. The studies undertaken were of an acceptable quality including the Dar-es-Salaam bus rapid transit and traffic management studies. However, TANROADS's change of mind concerning the site of the new headquarters building resulted in fruitless expenditure and the work could not be completed within the credit period.

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76 ICR Central Transport Corridor Project, Report 1299, June 2010, page 22
64. For railway activities the implementing agency was initially TRC and later RAHCO/TRL. The procurement was delayed by two years, but this was partly due to issues connected with the concession process. Notwithstanding, TRC could have prepared and commenced the procurement activities for many materials much earlier and this would have improved the track condition and hence level of service earlier too. The change to RAHCO was also problematic because this agency was on a steep learning curve, but performance did improve after a slow start. TRC/TRL was also responsible for environmental cleaning and implementing the RAP. There were delays in these activities due to the retrenchment of staff, but a consultant was employed to assist with completing the work. The performance of the implementing agencies was moderately satisfactory. Overall Borrower performance was moderately satisfactory.
### Appendix 1. Basic Data Sheet Tanzania Central Transport Corridor Project (Credit 3888-TN)

#### Key Project Data (amounts in US$ million)

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Appendix 2. Maps of Tanzania
Annex C. Uganda Road Sector Institutional Support Technical Assistance Project (Credit 2987-UG)

Principal Ratings

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</tr>
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<td>Moderately Unsatisfactory</td>
<td>Moderately Satisfactory</td>
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</tbody>
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* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

<table>
<thead>
<tr>
<th>Project</th>
<th>Task Manager/Leader</th>
<th>Division Chief/ Sector Director</th>
<th>Country Director</th>
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<tr>
<td>Appraisal</td>
<td>Yitzhak Kamhi</td>
<td>Yusupha Crookes</td>
<td>James Adams</td>
</tr>
<tr>
<td>Completion</td>
<td>Labite Ocaya</td>
<td>Sanjivi Rajasingham</td>
<td>John McIntire</td>
</tr>
</tbody>
</table>
Summary

Project Objectives

1. There were three parts to the objectives of this technical assistance project. First, to strengthen the government’s road sector management capability through spinning-off of the road administration and execution of activities under the Ministry of Works and Transport (MOWT), and the creation of an autonomous performance-based Road Agency; second to improve transport sector policy and management, through the redefinition of the role of MOWT towards a regulatory and planning body; and third to prepare physical infrastructure components to be included in a future road sector program which would contribute to economic growth and poverty alleviation and to improved access to social services.

Main Findings

2. Based on high relevance of objectives, but modest relevance of design, substantial efficacy, but modest efficiency, overall outcome is rated moderately satisfactory. The main risks to outcomes, rated high, relate to the ability of Uganda National Road Authority (UNRA) to retain qualified and experienced staff and adequate funding for maintenance. The Road Fund is now operational (though not yet funded by road user charges) and it is likely that greater resources will be available for maintenance. However, it needs to be kept in mind that UNRA is new and that the Road Fund initiative is relatively recent and it may well be subject to difficulties as it tries to allocate funding to national, district, urban and community roads where authorities have different capacities, needs and capabilities.

Lessons

3. During road reform initiatives, the Borrower’s absorptive capacity, the degree of opposition to change and the time it takes to prepare and adopt new legislation, have often been miscalculated by the Bank and other development partners. The Bank thus needs to ensure appropriate training and skills deployment to i) assess and address the Borrower’s institutional and absorptive capacity limitations; ii) gauge the degree of resistance to change and make a plan to deal with it, and iii) realistically estimate the time it takes to prepare, adopt and apply new legislation.

4. Interim (transitional) institutional arrangements should be designed so as not to create disincentives for moving towards fully-fledged institutions. In this project the creation of the Road Agency Formation Unit (RAFU) reduced the sense of urgency in moving forward.
Program Context

1. Three projects in the Republic of Uganda are reviewed:
   - Road sector institutional support [RSISTAP] (P049543); closed Dec 31, 2007.
   - Phase I of the Roads Development Program (P002970); closed June 30, 2008.
   - Phase II of the Roads Development Program (P065436); also closed June 30, 2008.

2. The first and second phases of the Uganda Roads Development and the supporting technical assistance project have considerable overlap and took place over much the same time period. The issues are therefore very similar. The availability of documentation at the Uganda National Roads Authority (UNRA) was also limited since the organization had just moved its headquarters at the time of the IEG mission and many of the documents were unavailable.

3. The above projects are all inter-connected. The two Roads Development program projects were also two phases of an Adaptable Program Loan (APL) that covered the bitumen surfacing of main roads (400 km) and the upgrading of gravel roads (145 km) to improve access to rural areas and economically productive areas, and, at the same time, the improvement of road safety, road sector planning and management capacity. Two potential further phases were also envisaged.

4. A supporting institution-building technical assistance project made provision for the establishment of a Road Authority or Agency autonomous from Government, the setting up an environmental liaison unit and a management information system, as well as the preparation of a national feeder road study to identify key district roads to be linked to the improved national road system. The cost of the projects was approximately $260 million of which $200 million was in the form of IDA credits.

PROJECT CONTEXT

5. In 1997 when RSISTAP was appraised, Uganda was one of the fastest growing economies in Africa and undergoing a series of structural and institutional reforms. RSISTAP was designed to support the Government in setting up an appropriate institutional framework in the roads sector and to prepare engineering designs for implementing the Road Development Program (RDP), a component of the ten year Road Sector Development Program (RSDP-I), 1996-2006. In April 2002 RSDP-I was updated and rolled over into a second ten year program, 2006-2011 (RSDP-II). The Bank supported these programs through a phased APL program with the first two phases evaluated in this PPAR.

77 The proposed agency was in the end declared an authority. In theory an authority has more autonomy, but in practice the degree of autonomy is also strongly influenced by the political environment.
Objectives and Components

OBJECTIVES OF TECHNICAL ASSISTANCE PROJECT:

6. The objectives, which were not revised during implementation, stated in the Memorandum and Recommendations of the President to the Executive Directors of August 4, 1997 (Technical Annex 7) and the Development Credit Agreement (DCA), are identical:

1) **Strengthen the government's road sector management capability** through spinning-off of the road administration and execution of activities under the Ministry of Works and Transport (MOWT), and the creation of an autonomous performance-based Road Agency;

2) **Improve transport sector policy and management**, through the redefinition of the role of MOWT towards a regulatory and planning body; and

3) **Prepare physical infrastructure components** to be included in a future road sector program which would contribute to economic growth and poverty alleviation and to improved access to social services.

COMPONENTS:

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<th>COMPONENTS</th>
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<tbody>
<tr>
<td>Strengthening the Borrower’s road sector management capability through provision of technical advisory services by: Staffing the Road Agency Formation Unit (RAFU) as the nucleus for the proposed Road Agency; and Establishing and staffing a new Environment Liaison Unit in MOWT</td>
</tr>
<tr>
<td><strong>B. Sector Policy and Management Studies (At Appraisal: US$2.20 million; revised: US$2.44 million; actual: US$2.33 million):</strong></td>
</tr>
<tr>
<td>Improvement of the Borrower’s road sector policy and management through provision of technical advisory services for studies on: An autonomous Road Agency; Road safety audit and regulations; Road network management policy; and Development of a management information system</td>
</tr>
<tr>
<td><strong>C. Infrastructure Preparation Studies (At Appraisal: US$12.20 million; revised: US$7.59 million; Actual: US$7.98 million):</strong></td>
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<td>Preparation of the physical infrastructure components of a proposed multi-year roads rehabilitation and improvement program through The carrying out of feasibility studies and if feasible, the detailed engineering design and environmental assessment of about 680 km of main roads; and (a) Preparation of a national feeder road study; and (b) detailed engineering designs for about 500 km of feeder roads.</td>
</tr>
<tr>
<td><strong>D. External Auditing (At Appraisal: US$0.10 million; revised: US$0.12 million; actual: US$0.04 million):</strong></td>
</tr>
<tr>
<td>Provision of technical advisory services for the auditing of accounts under the projects</td>
</tr>
</tbody>
</table>
Implementation Experience

Project Cost and Financing

7. The original appraisal estimate was US$33.00 million. In 1999 the DCA was revised to make provision for the procurement of office equipment, computers and vehicles for RAFU and Part A was revised to allow recruitment of individual consultants for line positions within RAFU, instead of being staffed only by international consultants.

8. In 2001, the DCA was further amended to allow for the following changes: (i) scope of roads under detailed engineering design and environmental assessment increased from 680 km to 730 km; (ii) scope of engineering design for the 10 years district road investment program from 500 km to 1000 km; and (iii) feasibility study for upgrading 300 km of district roads from gravel to paved (bituminous). Funding reallocations among the components of institutional development, capacity building and equipment were carried out three times: on May 5, 1999; October 4, 2001; and on November 2, 2004. The aim was to ensure that the revised components were adequately funded. At project closure all but US$0.1 million had been disbursed.

Borrower Contribution

9. The Borrower contribution planned at appraisal was US$3.00 million and this amount was unchanged in the revisions. At project closure the Borrower had disbursed US$4.17 million.

Dates

10. Project effectiveness was late by three months mainly due to a delay in recruiting a Director for RAFU. The original project closing date was December 31, 2000. The closing date was extended four times as achieving the critical development objective of establishing the national road agency proved elusive: (i) on May 5, 2000, for one year until December 31, 2001; (ii) on October 4, 2001, for two years until December 31, 2003; (iii) on March 10, 2003, for a further two years until December 31, 2005; and (iv) finally, on December 23, 2005, for a period of another two years until December 31, 2007. This meant that the actual closing date was seven years behind the planned completion date.

Fiduciary Aspects

11. A separate division in RAFU was responsible for all aspects of financial management and a well-documented Financial Management Manual was developed, outlining internal control procedures and financial reporting arrangements. From July 2001 the accounting system was fully computerized based on a double entry accounting system. ISRs were satisfactory reflecting good financial management reports. Initially there were delays in procurement due to the low quality of procurement documents and limited internal capacity, but with Bank support these problems were resolved. Audit reports were satisfactory and financial covenants were complied with. The Uganda National Road Authority (UNRA) was not set up initially with an internal audit unit, but this omission was rectified.
ENVIRONMENTAL AND SOCIAL SAFEGUARDS

12. The project was a category “C”, as no physical components were involved, but the project did create an Environmental Liaison Unit in RAFU. No direct social impacts occurred, but a Road Safety Improvement and Audit Study was carried out to enable an action plan to be drawn up for remedial measures to improve road safety.

UNINTENDED IMPACTS

None

Monitoring and Evaluation (M&E)

Design

13. The M&E framework was initially formulated in terms of end results or outputs geared to achieving the PDOs, but did not adequately provide for intermediate benchmarks to track capacity building and institutional developments, which may have enabled adjustments as the need arose.

Implementation

14. There was an attempt to improve the indicators during project implementation, but the new ones were of the nature of intermediate outcome indicators or were not easily measurable (e.g. “improved management of work contracts”; “redefine role of MOWT”; “rehabilitate infrastructure”; “improve environment protection”; “improve efficiency through involvement of private sector in maintenance”). RAFU had a designated monitoring officer, but no comprehensive evaluations were carried out to assess the performance of the organization in terms of procurement delivery, contractor payments and the performance of contractors and consultants. RAFU prepared progress reports on individual project activities, but paid little attention to providing more comprehensive and consolidated progress reports for the information of all stakeholders interested in the road sector. The Quality Assurance Group (QAG) Quality of Supervision Assessment pointed out that the four project extensions were not subjected to easily monitored benchmarks; IEG is of the view that the results framework should have been revised and updated at the time of each credit extension.

Utilization

15. Utilization of the M&E system was limited to the performance indicators that tracked project activities. However the long decision-making process that required the approval of the contracts committee, lack of follow up on the agreed performance indicators, incomplete design of the monitoring and evaluation framework contributed to implementation delays of some project activities.

M&E quality is rated negligible
Relevance

Objectives

16. The project was designed against the background of the broad-based economic and institutional reform effort in Uganda that began in 1997. The project objectives were clear and relevant to the country’s overall development priorities and the specific circumstances prevailing in the road sector as laid out in successive Bank CAS reports (1997, 2000 and 2005), the Government’s 10-Year (1996-2006) Road Sector Plan and the National Transport Policy of 2002. These priorities included parastatal reforms in the transport sector, improving access to infrastructure to facilitate business development and promote economic growth, lowering transport costs, and improving access to social services, all of which would generally contribute to poverty reduction. Relevance of objectives is substantial, however, rather than high, taking into account that there was opposition to the concept within Uganda that contributed to the delays in implementation.

Design

17. There was a clear statement of the relevance of the design to the objectives, but the results framework was poor. The project was designed to spin-off road management and execution activities to a new Road Agency from the MOWT, while reinforcing the latter’s planning and regulatory functions. Recognizing that the new Road Agency would take time to gain legislative endorsement, the project made interim arrangements by establishing an interim Road Agency Formation Unit (RAFU). RAFU would be the nucleus and precursor to the proposed autonomous Road Agency which was intended to be established within three years of project effectiveness after the necessary legislation was passed.

18. The strategy of separating the management and executing activities for the road sector from planning and regulatory functions was in line with international and regional practice. The project design was also underpinned by an initial road sector study that examined the statutory, legal, regulatory, and funding arrangements for organizing road sector management. However, in retrospect, the risk of delays in the process of establishing the Road Agency that involved holding stakeholder workshops to achieve consensus on the way ahead, as well as the preparation of and promulgation of relevant legislation was not adequately taken into account. Design relevance is modest.

Efficacy

19. Strengthen the government’s road sector management capability through spinning-off of the road administration and execution of activities under MOWT, and the creation of an autonomous performance-based Road Agency Substantial

20. This objective was achieved—though with considerable delay—through the transition from RAFU to the UNRA, which became effective on July 1, 2008 (after the project closed). UNRA took over the road execution and administration activities of the MOWT. According to the Road Fund and confirmed in discussions with the DfID-
funded consultant assisting UNRA with building its capacity, road management capability has improved under UNRA. For example they refer to higher quality road surface treatments now being used, and fewer contract cost overruns than experienced with RAFU. The whole transitional process took over ten years, however, against the planned three and a half years. In terms of content, the UNRA legislation is used as a best practice example by road management specialists in the Bank. This model legislation has evolved over several years and tested as new agencies have been established.

21. *Improve transport sector policy and management, through the redefinition of the role of MOWT towards a regulatory and planning body.* **Substantial**

22. The project financed several studies including those on the establishment of the road agency, road network management and financing, a road safety audit, motor vehicle inspections, in-house development of a management information system, and the use of local lime in road construction. Many of the recommendations resulting from these studies have been implemented, although for some items only relatively sketchy details of the outcomes are provided. Significantly, however, the recommendations of the road management and financing study did help in formulating the Road Fund legislation that was approved by the parliament on June 19, 2008, with the expectation that the Road Fund would be fully operational by July 1, 2009. IEG confirms that the axle load regulation and control policy has been reviewed and is being implemented by MOWT. Between 1998 and 2007 several workshops were held with stakeholders to review various study reports and recommendations; and to generally review performance in the road sector. In this regard MOWT has assumed a policy/regulatory role as envisaged.

23. *Prepare physical infrastructure components to be included in a future road sector program which would contribute to economic growth and poverty alleviation and to improved access to social services.* **Substantial.**

24. Feasibility studies and the engineering designs were prepared for upgrading/rehabilitation of a total length of 795 km against a revised target of 1,000 km. On the basis of this design work, the upgrading of 383 km and rehabilitation and strengthening of 162 km of roads have been completed under the follow-on projects RDP-1 and RDP-2. The rehabilitation and upgrading of the remaining length of roads will be completed under the ongoing RDP-3 and the RDP-4, which is under preparation. A pre-investment study for the Nile Bridge at Jinja, currently in poor condition, found that traffic levels are unlikely to justify a Public Private Partnership (PPP). The Japan International Cooperation Agency is financing detailed design, repairs and construction. Regarding feeder roads, detailed engineering designs for 1,000 km under the ten year district road investment program were completed, which exceeds the planned 500 km.

**Efficiency**

25. This technical assistance project did not include the implementation of civil works. Therefore, conventional quantitative economic analysis which is normally carried out for investment projects does not apply. There is no information available on the involvement of the private sector in new construction & rehabilitation works and
maintenance (for which targets at appraisal were 100 percent and 85 percent respectively), but the project has successfully prepared the design and bidding documents for follow-on RDP projects. The Environment Liaison Unit (ELU) also improved coordination between national environmental sector policy and implementation of road programs.

26. A study of the expected benefits of an autonomous agency was carried out in 2004 and concluded that likely results would be higher quality road treatment practices, fewer cost overruns, less scope for corruption, and greater private sector participation. No follow up was done, however, to measure this contention on a before and after basis. The project was inordinately delayed and completed only seven years after the original closing date. This was due to inefficient and extensive delays in the process of drafting legislation, and difficulties in developing political consensus, in addition to weak institutional capacity. The eventual drafting of the UNRA legislation only commenced once it had been determined that the Executive Agency model would not provide sufficient autonomy for the new entity. This procrastination wasted four years and slowed the project’s momentum. The project as designed anticipated completion in just three and a half years, which was not only totally unrealistic, but did not reflect experiences in similar reform processes. Efficiency on balance was modest.

Outcome

27. Once UNRA was established as an autonomous road authority it took over the responsibilities for the management of national roads from MOWT. It is too early to judge the outcome of the UNRA’s functioning though it has a favorable precedent in the performance of its precursor, RAFU, which has improved the quality of output and shortened the time taken for implementing major civil works by approximately 50 percent compared to the time taken previously by MOWT.

28. Based on high relevance of objectives, but modest relevance of design, substantial efficacy, but modest efficiency, overall outcome is rated moderately satisfactory.

Risk to Development Outcome

29. The main risks to outcomes relate to the ability of UNRA to retain qualified and experienced staff and adequate funding for maintenance. Currently, UNRA staffs (including former RAFU staff) are remunerated relatively well and provision was made for their salaries in the general budget during the transitional period. The Road Fund is now operational (though not yet funded by road user charges) and it is likely that greater resources will be available for maintenance. However, it needs to be kept in mind that UNRA is new and that the Road Fund initiative is relatively recent and it may well be subject to difficulties as it tries to allocate funding to national, district, urban and community roads where authorities have different capacities, needs and capabilities. It is not clear as to whether sufficient capacity has been built within MOWT for it to successfully fulfill its planning and regulatory role to improve transport policy and management. UNRA is also responsible for the prevention of truck overloading (to preserve its road network) and accordingly intends to draw up a comprehensive axle load
control strategy. This will focus on a re-organization of current axle load set-up within UNRA and an investment plan to build more truck weighing stations. A significant problem at present is that, unlike in Tanzania, the enforcement is carried out by the police, who have other priorities. Risk to Development Outcome Rating: high.

Bank Performance

Quality at Entry

30. The Bank appropriately recognized the need for technical assistance for Uganda's transport sector, in devising a technical assistance project to build adequate institutional mechanisms and capacity to handle the Government’s large US$1.5 billion road sector investment program (1997-2006). QAG's quality at entry assessment noted that the project's concepts, objectives and approach were “satisfactory”, but that institutional capacity analysis and readiness for implementation was “marginally satisfactory”. M&E was inadequate. Subsequent delays confirm this perspective. The goal of spinning off the management and execution functions from MOWT to a Road Authority was in keeping with accepted practice for separating planning and implementation, developing capacity and improving efficiency. Given that it would take time to pass legislation for creating a Road Authority the chosen option of creating RAFU as an interim arrangement appears to have been pragmatic and useful in relation to the alternatives of waiting till a Road Authority was created, or retaining the functions within MOWT. The time taken to transition from RAFU to a Road Agency was greatly underestimated at 3.5 years, when the process actually took ten years. In retrospect the existence of RAFU decreased the urgency for the Government to move quickly to resolve problems in the establishment of the Agency.

31. Initially it had been thought that the Road Agency could be provided for under the Executive Agency Act of 2000, but it was then realized by the GoU and the Bank after much debate that this would not provide for sufficient autonomy of the proposed Agency. Only in 2004 did the GOU begin to draw up legislation for UNRA as autonomous entity and this was only approved by parliament in 2006. In this respect, the planned implementation period of three and a half years was too short and considerable time had been wasted. Neither the stakeholder nor the institutional capacity analyses were adequate; inclusion of a team member with strong organizational management expertise would have been useful. On balance, quality at entry is rated moderately satisfactory.

Quality of Supervision

32. The Bank supervision team had a good skills mix and acted appropriately in persisting with the agreed agenda of institutional reform despite delays on the part of the Government. The Bank team also provided guidance on the latest experiences with the creation of a Road Fund, strengthening contract management, and enhancing donor collaboration in the road sector. The quality of the financial management reviews was found to be satisfactory and consistent with the Bank guidelines. However, the Bank’s supervision teams could have been more realistic in assigning the ratings for development objectives and implementation performance in the ISRs, and should have been more pro-
active in addressing the causes of these delays. During implementation, the project was twice subjected to a QAG review: (i) October 12, 2004, which revisited issues related to quality at entry, noting that the project was not ready for implementation at approval despite nine months of project preparation; that project effectiveness took another twelve months; and that institutional capacity analysis was not adequate and gave an overall assessment of "Moderately Satisfactory"; and (ii) September 22, 2006, with an overall "satisfactory" rating. QAG also commented that some of the problems encountered during implementation could easily have been identified through a thorough institutional analysis, and co-opting an institutional specialist could have helped it in this regard. IEG concurs with these views. Bank supervision is rated satisfactory.

33. Overall Bank Performance: moderately satisfactory

**Borrower Performance**

*Government*

34. Government performance was uneven during implementation and was the main reason for the nearly seven year delay in project completion. Much time was lost debating whether to develop RAFU as an “Executive Agency” with limited autonomy or formulating legislation for UNRA. The UNRA concept was only finally agreed in principle in 2004. It took another two to three years for cabinet and parliamentary approval. GoU continued to finance RAFU’s operational costs in the interim. In addition, Government showed a strong commitment to move the institutional reforms forward by approving legislation for setting up a Road Fund. On the whole, though, the GoU was primarily responsible for the procrastination in project implementation, and Government performance is rated moderately unsatisfactory.

*Implementing Agency*

35. The implementing agency RAFU initially had limited procurement and contract management skills. Subsequently, the formation of teams that included both foreign and national professionals helped to improve the situation and over time capacity was strengthened to some extent. Monitoring and reporting capacity, however, remained weak throughout. There were delays in recruiting staff to RAFU because of unclear terms of appointment and continuity. This situation was partially resolved through clarifying the conditions of employment and by training 13 engineers to obtain the required registration status. Works carried out under RAFU management were held to a higher standard than previously due to more rigorous supervision and closer adherence to contractual requirements. Time overruns in project execution of contracts were substantially decreased compared with the completion of works under the management of the MOWT. A cost-benefit analysis for road projects managed by RAFU yielded internal rates of returns ranging between 14 and 53 percent. On balance, despite the initial delays and poor M&E, implementing agency performance is rated moderately satisfactory.

36. Overall Borrower Performance: Given the positive outcome of the projects that the technical assistance was intended to support a rating of moderately satisfactory has been given.
Appendix 1. Basic Data Sheet Uganda Road Sector Institutional Support Technical Assistance Project (Credit 2987-UG)

Key Project Data (amounts in US$ million)

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Cumulative Estimated and Actual Disbursements

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Project Dates

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### Mission Data

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<td>Jocelyne O. Do Sacramento</td>
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<td>Patrick Piker Umah Tete</td>
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<td>Jonas Hermanson</td>
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<td>Nina Jones</td>
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<td>Shuo Zhang</td>
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Annex D. Uganda Roads Development Program (APL), First Phase (Credit 3267-UG)

Principal Ratings

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* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

<table>
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<tr>
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<th>Division Chief/ Sector Director</th>
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<td>Appraisal</td>
<td>Yitzhak Kamhi</td>
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<td>James Adams</td>
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<td>Completion</td>
<td>Labite Ocaya</td>
<td>Sanjivi Rajasingham</td>
<td>John McIntire</td>
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Summary

Project Objectives

1. The project objective was to improve access to rural areas and economically productive areas, and gradually build up road sector planning and management capability. The latter objective was directly linked to the technical assistance project giving road sector institutional support.

Main Findings

2. The outcome was moderately satisfactory. The objective to improve access to rural and economically productive areas was highly achieved through the improvement of more roads than originally planned. However, the latter objective to build up road sector planning was achieved more modestly as it was not clearly articulated how the studies linked with the improvement of the road sector planning and management capability in the country. The risk to development outcome is considered high. There is, for example, concern over the sufficiency of funds in the Road Fund. With effect from July, 2009 the responsibility for 10,000 km of district roads was transferred to the Ugandan National Road Authority (UNRA) without the requisite additional budget or the normal legal process for such a transfer. To add to this burden UNRA has had to take on some of the responsibility for road maintenance (mainly rehabilitation) in Greater Kampala—again without clarity on additional budget.

Lessons

3. This was one of the first projects to make use of the Adaptable Program Loan (APL) instrument. However, it should have been executed sequentially and not simultaneously with the next phase. The idea of an APL is to learn from the first project, which then “triggers” the second project. Best practice today is that triggers are clearly set out to initiate each subsequent project or stage.

4. Lack of counterpart funding can have severe consequences causing delays which lead to time extensions and reduce the output of contractors.
Program Context

1. Three projects in the Republic of Uganda are reviewed:
   - Road sector institutional support, RSISTAP, (P049543); closed Dec 31, 2007.
   - Phase I of the Roads Development Program (P002970); closed June 30, 2008.
   - Phase II of the Roads Development Program (P065436); also closed June 30, 2008.

2. The first and second phases of the Uganda Roads Development and the supporting technical assistance project have considerable overlap and took place over much the same time period. The issues are therefore very similar. The availability of documentation at the Uganda National Roads Authority (UNRA) was also limited since the organization had just moved its headquarters at the time of the IEG mission and many of the documents were unavailable.

Objectives and Components

PROJECT AND PROGRAM OBJECTIVES:

3. The Program and Project Development Objectives (PDOs) are very similar, and although the Program mentions “removing constraints” and the DCA substitutes the word “enhance” for “gradually build up,” in essence they all have the same meaning.

OBJECTIVES:

   ➢ Improve access to rural areas and economically productive areas, and

   ➢ Gradually build up road sector planning and management capability.

4. IEG uses the original wording in this evaluation. The objectives were not revised during implementation.

COMPONENTS:

5. The project components were not revised, but a new road was introduced under Part A from credit savings of approximately US$20 million. The savings were due to:

   i) Gain in value of the SDR against the US dollar;
   ii) The relatively large unallocated amount of SDR 12.77 million to allow for physical and price contingencies; and
   iii) Lower bids compared to the engineer’s estimates.
Part A: **Upgrading of main roads** (Estimate at appraisal: US$117.0 million. Cost at completion: US$116.9 million)

Upgrading of: (a) about 145 km of the Busunju-Kiboga-Hoima gravel road; and (b) about 130 km of Pakwach-Arua section of the Karuma-Olwiyo-Pakwach-Nebbi-Arua gravel road to paved (bitumen) standard.

**Part B: Sector Policy and Management Studies** (Estimate at appraisal: US$2.5 million. Cost at completion: US$2.5 million), [funded under a project preparation facility].

This comprised the carrying out studies: (a) to review the Borrower’s strategy for the transport sector; (b) to review and update the Borrower’s strategy for rural roads; (c) to assess the environmental policy and management of the road sector; (d) for the establishment of the Road Agency; and (e) to review the institutional arrangements for the management and financing of roads. The component also included conducting workshops and seminars on road sector management and finance through the provision of technical advisory services.

**Part C: External Auditing Services** (Estimate at appraisal: US$0.4 million. Cost at completion: US$1.6 million).

This involved the carrying out of audits under the project through the provision of technical advisory services.

**Implementation Experience**

*Project Cost*

6. Project cost at appraisal was US$ 119.94 million and at completion was US$120.99 million.

*Financing and Borrower Contribution*

7. Although a Borrower Contribution of US$28.96 million had been planned (24 percent), after delays to project implementation the DCA was amended in September 2005 at the request of the GoU to increase IDA funding to 100 percent because the Borrower was at that time unable to provide counterpart funding. The amendment was also to utilize savings due to contract bids that were below project estimates.

*Dates*

8. The Board of Directors approved the project in June 1999 and it became effective in February 2000. The original project closing date was December 31, 2004. However, the project was extended for two additional years to resolve issues regarding the status of contractors working on the project. A second extension for a further 1.5 years was to allow the resolution of the previously mentioned contractor problem, but also for the completion of roads which were added during implementation following financial savings due to the depreciation of the US dollar against the SDR. The project finally closed on June 30, 2008.
**Effectiveness**

9. The project became effective on February 1, 2000, six months after approval. As a condition of effectiveness the Government created within the Ministry of Works and Transport (MOWT) an “arm’s length” Road Agency Formation Unit (RAFU) to take over the management of large contracts, while for the time being road maintenance remained the responsibility of MOWT.

**Legal Issues**

10. The first two contracts were completed within time and budget, but problems arose with two other major contracts when the Bank realized that the contractor on site was not the contractor that had signed the contract. The Borrower clarified that the replacement contractor was a subsidiary of the parent company; it had existed for a long time and had the same shareholders, assets, and staffing. The Borrower also claimed the contractor had adequate financial strength to complete the works. Further, the Attorney-General of Uganda gave an opinion that this arrangement was acceptable and in accordance with British Law under which the two companies were registered.

11. After an independent consultant’s assessment of the situation, the Bank issued a no-objection letter in June, 2003. Implementation Supervision Reports (ISRs) were recorded as satisfactory until September, 2004 at which time the Bank became concerned about the contractor’s growing inability to meet its obligations, citing cash flow issues and poor design leading to variation orders in respect of road safety, shoulder strength, and over-designed hydraulic structures. Subsequently, the Bank commissioned consultants to carry out an independent review of the contractor’s ability to perform and complete the works. Since these opinions increased the level of doubt as to whether the contractor could adequately perform, the advice of the Solicitor-General of Uganda and an international construction lawyer were sought, the latter reporting in February, 2006. The opinion was, that based on the history of differences between the client and the contractor, the Government would be unlikely to succeed in terminating the contract on the grounds of default, and an amicable dispute settlement process was recommended. This was accepted by the Government and the Bank as the most practical way forward. A detailed action plan was agreed and by October, 2006 the ISRs were again reflecting a satisfactory, albeit delayed, performance.

**Fiduciary Aspects**

12. A separate division in RAFU was responsible for all aspects of financial management and a well-documented Financial Management Manual was developed, outlining internal control procedures and financial reporting arrangements. From July 2001 the accounting system was fully computerized based on a double entry accounting system. ISRs were satisfactory reflecting good financial management reports. Initially there were delays in procurement due to the low quality of procurement documents and limited internal capacity, but with Bank support these problems were resolved. Audit reports were satisfactory and financial covenants were complied with. UNRA was not set up initially with an internal audit unit, but this omission was rectified.
ENVIRONMENTAL AND SOCIAL SAFEGUARDS

13. The project was classified as “B” category. Environmental Impact Assessments (EIAs) were carried out for each road and an Environmental Liaison Unit (ELU) was established in MOWT to monitor not just the physical components of this project, but all infrastructure projects under the jurisdiction of the Ministry. The IEG mission noted some borrow-pits that had not been fully restored, but apparently this was at the request of the local people who wished to use the sites to quarry materials. A social assessment was carried out, but since the works involved the upgrading of existing infrastructure and minimal involuntary relocation was required, the assessment focused more on microeconomic impacts resulting from the construction activities such as ensuring that all civil works contract documents contained safeguards to mitigate the spread of HIV/AIDS.

UNINTENDED IMPACTS

14. Concern about higher traffic speeds through the villages has led to the addition of rumble strips and speed humps at strategic points.

Monitoring and Evaluation (M&E)

Design

15. The key performance indicators collected informative data pertaining to the first part of the objective. Increases in traffic volumes benefitting from reduced travel times and vehicle operating costs were used as a proxy reflecting the movement of increased volumes of agricultural, commercial and industrial goods. No specific indicators were used to assess the contribution to poverty reduction, since poverty reduction was not the part of the PDO as such, but the program undoubtedly contributed to poverty alleviation through improved market integration and accessibility. Outputs such as completion of studies measured the second part of the objective.

Implementation and Utilization

16. The M&E design was not modified to take into account the project extensions. Monitoring was confined to a quarterly report based on output data. In hindsight the M&E system could have been used to monitor project implementation delays and to act on such delays. For example, a lack of qualified and experienced staff was one of the reasons for delay in the implementation of some of the road upgrading contracts. Timely information on the recruitment status could have triggered additional supportive moves from the Bank. No further utilization of M&E has taken place other than the continuance of regular traffic counts.

M&E is rated modest.
Relevance

Relevance of objectives substantial

17. The virtually identical program and project objectives were relevant and consistent with the Government’s road sector strategy and development priorities that emphasized the promotion of an active private sector in the provision of transport services through deregulation and privatization.

18. The PDOs were in line too with the Government’s Letter of Development Policy which provided the agreed framework for the road program and which remained relevant at closure. The project was also in alignment with the country’s (1998) Poverty Eradication Action Plan, which targeted the provision of efficient and reliable transport services, increased agricultural production, enhanced linkages with neighboring countries, the stimulation of economic growth, and the promotion of national security.

19. The objectives were, moreover, consistent with the World Bank Group’s CAS, which was discussed at the Board on May 20, 1997 and also the later CASs of 2000 and 2005. These strategies referred to lowering transport costs and improving the reliability of access to infrastructure to facilitate business development. The project was part of IDA’s operational program, designed to reduce poverty through a medium-term strategy focused on private sector-led growth.

Relevance of design modest

20. The design of Component “A” (physical works) was relevant to address the project objectives of greater access, since improved road conditions were likely to extend such access. The targets associated with this component were measured by indicators such as the reduction in average travel time on main roads, the reduction in transport and vehicle operating costs, and (more tenuously) greater agricultural and industrial activity reflected through increased traffic growth.

21. The design of the smaller Component “B” was even less conducive to meeting the second part of the project objective of building up road sector planning and management capability. Only one indicator applied to this objective, the functioning of RAFU by December 1999. Additionally, it is not clear how Part B of the project was to meet this objective, as it primarily consisted of studies. While legislative outputs and the creation of new entities may have been milestones, it was not clear how the outcome of achieving stronger management capacity was to be achieved.

22. Because the design allowed simultaneous implementation of the APL phases (phase one and two were completed on the same date) it did not allow for application of lessons learnt between phases. In retrospect, triggers that would have forced stricter sequencing of the APL phases would have focused attention earlier on the two non-performing contracts.
Efficacy

Objective 1: Improve access to rural areas and economically productive areas

23. The upgrading to bituminous standards of the main roads was achieved, despite substantial delays. By adding the rehabilitation of the Kawempe-Kafu road (166 km), the project delivered 441 km of improved main roads against the 275 km planned at appraisal. With these improvements targeted on areas with the best productive potential, the project succeeded in achieving the planned indicators of reducing travel time for the Busunju-Hoima road from seven hours at a speed of 21 km/hour in 1999 to the target of 3.5 hours at a speed of 50 km/hour for a bus (including stoppages) in year 2008.

24. Similarly for the Pakwach-Arua road travel time was reduced from five hours at a speed of 26 km/hour in 1999 to a target of 2.5 hours at a speed of 50 km/hour for bus (including stoppages) in year 2006. On the improved roads the vehicle operating costs have also been reduced for an average vehicle (bus) from US$0.352/vehicle-km in 2002 to US$0.224/vehicle-km in 2006. Local persons and representatives of the Chamber of Commerce and Industry interviewed by the IEG mission confirmed that it is now much quicker and easier to get their produce to market in Kampala and to buy needed supplies for their smallholdings. They can get to the market and back in the same day without having to stay overnight. Better transport services also meant they could produce and sell more fruit and vegetables.

25. The IEG mission inspected the Busunju-Hoima road and found it to be in good visual condition. This was supported by favorable roughness measurements results conducted in October 2010 for UNRA. Traffic counts were marginally higher than those used to calculate ERRs in the ICR and the IEG mission observed evidence of new ribbon development of households along the roadside and substantial movements of people by buses and taxis to and from villages in the area to the markets in Kampala.

Objective 2: Gradually build up road sector planning and management capability

26. Although five policy and sector management studies were completed, the PAD and the ICR did not clarify the linkage between the studies and the capacity building (i.e., what was the follow up and what was achieved). Satisfactory audit reports (one of the project components) were, however, received on a timely basis.

27. A Transport Sector Review was submitted to the GoU to recommend appropriate strategies. While this review was accepted by the Government in principle there remains doubt as to its commitment to fully fund required maintenance. A Road Sector Environmental Policy and Management Assessment Study was also undertaken and as a result an ELU was established in MOWTC and is fully operational. IEG noted that its activities were appropriate and it was maintaining the integrity of the environmental processes. The Ministry of Local Government’s Rural Road Strategy was updated in the light of the Government’s decentralization process. It led to a White Paper detailing the strategy, financing mechanisms and management of feeder roads in 2001. This has only partially been implemented due to a lack of funds and technical expertise.
28. The most important studies focused on the establishment of RAFU as a transitional arrangement for the establishment of UNRA, and identified road user charges which could be applied to road maintenance. While the buildup of capacity was expected to be “gradual,” in the event it was “glacial.” RAFU was to have been established by 1999 and operational by 2000. According to the PAD an independent Road Agency was then to have been established by 2002. In the event, it was not until May 2006 that this was enacted by parliament. UNRA only began operations in 2008 and the Road Fund two years later. This was an arduous process that took nearly ten years to complete and was fraught with difficulties in finding qualified and experienced staff in procurement and contract management. However, UNRA is now established and is more efficient at procurement and contract management than was the case under MOWTC.

### Efficiency

29. At project appraisal an economic analysis for investment in the physical works was estimated at 19.0 percent. Re-estimated results in the ICR indicate that the consolidated ERR at completion was 21.1 percent. The higher ERR at completion was due to higher-than-expected traffic growth. The impacts of the late delivery (3.5 years) of the benefits on the local economy, however, were not measured in the HDM4 model, but, in IEG’s estimate, would be unlikely to reduce the ERR below about 17 percent. A legal dispute concerning the contract award and subsequent nonperformance of the contractor were the main causes of the delays. The promulgation of legislation for the institutional reforms also took far longer than anticipated. Efficiency is rated substantial, because the ERR was still likely well above the opportunity cost of capital, although clearly less positive than expected. Consideration should also be given to the positive efficiency aspect of more roads being improved than was originally planned.

### Outcome

30. The objectives of the project were to improve access to rural and economically productive areas and to build up road sector planning and management capability in the country. The former was eventually highly achieved through the improvement of more roads than originally planned, and through decreasing average travel times and vehicle operating costs. Local persons interviewed confirmed that it is now much quicker and easier to get their produce to market and to buy needed supplies for their smallholdings. They can get to the market and back in the same day without having to stay overnight. Better transport services also mean they can produce and sell more fruit and vegetables. The better transport services have also attracted new residential development to the area.

31. But the latter objective was achieved more modestly; it was not clearly articulated how the studies linked with the improvement of the road sector planning and management capability in the country, although they were intended to support institutional reforms and there was ongoing dialogue between the Bank and the Borrower. The relevance of objectives was substantial, but the relevance of the design

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78 PAD Road Development Program Phase 1 Report 18793-UG, June 1999, page11
was modest. Efficiency in terms of ERR was still substantial, even though the calculations did not factor in the effect of three and a half years of delays, they were probably around 17 percent. The original intention of creating a separate road authority via a transitional unit took nearly a decade to achieve, however, and the Road Authority, though now operational, still does not have secured funding from user charges. Given these shortcomings, IEG rates outcome as moderately satisfactory.

Risk to Development Outcome

32. Although UNRA is now fully operational and the Uganda Road Fund was established by Act of Parliament in August 2008, the Road Fund only commenced operations in January 2010. While it was intended that the income to the fund would be raised from road user charges, primarily through a levy on fuel, it is of serious concern that this has yet to take place. Initial appropriations had to be provided from the Government’s consolidated fund. It will only now be possible to implement a fuel levy if the general revenue raising law (the Uganda Revenue Authority Act) is amended. Since this technicality should have been identified earlier, it creates uncertainty regarding the way ahead. Policy reversals are possible and it was evident in a debate on transport financing in parliament in March, 2010 that there is still some opposition by members of parliament to the concept of both UNRA, and the Road Fund. A point made in the debate was that new authorities are being created, but they still lack capacity. Since UNRA still had 46 unfilled posts at the time of the IEG mission, this argument is not entirely without substance, given that there are also (Bank supported) plans for new authorities covering road safety, multi sector regulation, district and community roads, and public transportation in the Kampala Metropolitan Area.

33. One of the challenges facing UNRA is the massive increase of funding in the sector starting in 2008/09. While from 2001/02 to 2007/08 average total spending on maintenance and development of the national roads by both MOWT and RAFU was about US$100 million, UNRA spent US$347 million in its first year in operation (US$53.4 million on maintenance—against assessed needs of US$80 million—and the balance on development). The budget for 2009/10 was US$471 million and the plan is to spend an average of about US$550 million over each of the coming five years. An additional challenge is that with effect from July, 2009 the responsibility for 10,000 km of district roads was transferred to UNRA without the requisite additional budget or the normal legal process for such a transfer. To add to this burden UNRA has had to take on some of the responsibility for road maintenance (mainly rehabilitation) in Greater Kampala—again without clarity on additional budget. It is likely, however, that these new responsibilities will be formalized, despite the way in which the decisions were taken. Funds have been allocated from the Road Fund in its first year of operation according to the formula 64.9 percent for national roads, 32.6 percent for district, urban and community roads (DUCAR) and 2.5 percent for the Road Fund administration.

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80 UNRA Business Plan 2009/10, page 3
81 PAD, Transport Sector Development Project Report 50977-UG, November, 2009
challenge is that the condition of much of the DUCAR network and the capacity of the authorities concerned is unknown.

34. A further problem concerns allegations of corruption in UNRA. At the request of the Ministry of Finance, Planning and Economic Development, the Bank has proposed remedial measures including independent procurement and technical advisors and the introduction of performance and output-based contracts. In the meantime an independent procurement audit is underway and the services of the Bank’s integrity department have been requested following an anonymous letter sent to the Bank. This being a recent development, not further information was available at the time of this evaluation.

35. The risk to the development outcome is considered by IEG to be **high**.

**Bank Performance**

*Quality-at-Entry: moderately unsatisfactory*

36. During preparation, the Bank added value through providing worldwide experience gained through the Sub-Saharan Africa Transport Policy Program, of which the Road Maintenance Initiative (RMI) in Africa is one of the central components. The Bank’s assessment of the lack of institutional capacity and its proposed ameliorative measures led to the supporting technical assistance project (RSISTAP) with a specific focus on strengthening management capacity, reviewing sector priorities and implementing policy and institutional reforms. However, given the degree of institutional weakness at the time, the overall risk of institutional readiness at project appraisal which was assessed as “modest” should in hindsight have been at least “significant”, and a comprehensive risk mitigation plan should have been prepared and thoroughly discussed with the Borrower. Moreover, the Bank could have made the establishment of a procurement unit at RAFU a condition of effectiveness. There was pressure at that time to increase lending to Uganda and the donor community was keen to support the overall Road Sector Development Program (RSDP). This led to an intense process of information sharing and two joint technical meetings. The donor community acknowledged the Bank’s leadership role during preparation of the RSDP, but all stakeholders underestimated the time it would take to build capacity. The risks were in effect played down because it was assumed that they would be taken care of by RSISTAP.

37. The way in which the APL instrument was used was also ineffective and it was implemented prematurely. APLs were executed in parallel rather than sequentially, making it difficult to learn lessons from the implementation of the previous phase. In effect this negated the purpose of the APL. Additionally, triggers were not directly linked to sector reform. At the time the program was being developed, the APL instrument was considered to be a pilot, but in this case the design was fundamentally flawed. In fairness this criticism is more relevant to the follow on project, which was allowed to commence prematurely.

*Quality of Supervision: moderately satisfactory*
38. A project implementation plan provided a good basis for supervisory activities and the skills mix was well balanced. The team provided guidance on many issues related to the reform process, strengthening contract management and ensuring that financial management was consistent with Bank guidelines. During the period when there were serious issues with two major contracts the team was fully involved with trying to resolve the matter and supervision aide memoires were extensive in coverage. However, this stretched the team’s resources, since eight other contracts had to be monitored at the same time, contributing to the overall delays.

Overall Bank performance: taking into account the positive outcome of the project was moderately satisfactory

**Borrower Performance**

*Government Performance: moderately unsatisfactory*

39. The Government showed uneven commitment in implementing the institutional reforms, which proceeded extremely slowly; UNRA eventually became fully operational in July 2008. In addition, as recommended by the sector financing and management study, the Government finally decided, after long delays, to set up a Road Fund to enhance financial sustainability of road maintenance. The GoU also decided to convene on an annual basis a Joint Transport Sector Review Workshop to better monitor needs and developments in the sector. Despite the GoU agreement to provide counterpart funds in a timely fashion, there were delays in releasing such funds during the years 2002/2005. As a result, payments to contractors were delayed and by May 2005, the Government owed contractors an amount of UGX 4.7 billion as unpaid interim certificates and associated interest on account of delayed payment. The Government made efforts to prepare a supplementary budget, but the problem remained, until, at the Borrower’s request, the credit was amended on September 26, 2005 to increase the disbursement percentage of the remaining civil works to 100 percent. Taking into account the time taken in the setting up of UNRA and the non-delivery of counterpart funding, the Government’s performance is rated as moderately unsatisfactory.

*Implementing agency performance moderately satisfactory*

40. RAFU was the key implementing agency for this project. However, it was difficult for RAFU to recruit experienced and qualified contract management staff, due to a scarcity of skilled personnel in the country. As of September 30, 2002 RAFU had 66 staff for 94 positions, but this improved over time and especially when UNRA was created. Lack of qualified and experienced staff in procurement and contract management was one of the reasons for delay in the implementation of some of the road upgrading contracts. Nevertheless RAFU did succeed in establishing a strong core management team of engineers. In comparison to the prior procurement and contract management performance of the MOWT, RAFU managed to cut implementation time by half. The two large civil works contracts under the component for upgrading main roads had serious problems due to contractor internal issues related to change of ownership but also due to lack of rapid settlement of claims by RAFU. To enhance contract management, the Bank
advised RAFU to introduce tight quality control measures in handling procurement and contract management functions. Subsequently, the formation of teams comprising of foreign and national professionals to handle procurement and contracts management helped considerably in raising the performance of RAFU. Overall Borrower Performance taking into account the positive outcome of the project was **moderately satisfactory.**
### Appendix 1. Basic Data Sheets Uganda First Phase of the Road Development Project (Credit 3267-UG)

#### Key Project Data (amounts in US$ million)

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#### Cumulative Estimated and Actual Disbursements

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Date of final disbursement: November 2008

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<tr>
<td>C. Sanjivi Rajasingham</td>
<td>Sector Manager</td>
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<tr>
<td>Anil S. Bhandari</td>
<td>Sr. Adviser</td>
<td>AFTTR</td>
<td>Country Management Team</td>
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<tr>
<td>Yitzhak A. Kamhi</td>
<td>Consultant</td>
<td>AFTTR</td>
<td>TTL from 04/1997-11/2003</td>
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<tr>
<td>Stephen J. Brushett</td>
<td>Lead Transport Specialist</td>
<td>LCSTR</td>
<td>TTL from 11/2003-03/2005</td>
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<tr>
<td>Supee Teravaninthorn</td>
<td>Program Coordinator</td>
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<td>TTL from 03/2005-08/2006</td>
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<tr>
<td>Dieter E. Schelling</td>
<td>Lead Transport Specialist</td>
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<td>Labite Victorio Ocaya</td>
<td>Senior Highway Engineer</td>
<td>AFTTR</td>
<td>TTL since 05/2007</td>
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<td>Subhash C. Seth</td>
<td>Consultant</td>
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<td>Fang Xu</td>
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<td>Nina Chee</td>
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<td>AFTTR</td>
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<td>Olay E. Ellevset</td>
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<td>Jonas Hermanson</td>
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<td>Nina Jones</td>
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<td>Peter Okwero</td>
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<td>Richard Olowo</td>
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<td>Kristine Schwebach</td>
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<td>Farida Khan</td>
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<td>Patrick Piker Umah Tete</td>
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<td>Desta Wolde Woldeargey</td>
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Annex E. Uganda Roads Development Program, Phase II (Credit 3544-UG)

Principal Ratings

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* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

<table>
<thead>
<tr>
<th>Project</th>
<th>Task Manager/Leader</th>
<th>Division Chief/ Sector Director</th>
<th>Country Director</th>
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<td>Appraisal</td>
<td>Yitzhak Kamhi</td>
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<td>James Adams</td>
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<td>Completion</td>
<td>Dieter Schelling</td>
<td>Sanjivi Rajasingham</td>
<td>John McIntire</td>
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Summary

Project Objectives

1. There are two development objectives, namely, to improve access to rural and economically productive areas and to enhance the Borrower's road sector planning, design, program management capability, and road safety management.

Main Findings

2. The capacity building and road safety objective was only modestly achieved, while design relevance was also modest. The rate of return for the project was in the acceptable range, despite the two year delay in completion. But, taking into account these shortcomings, the outcome was rated **moderately satisfactory**. The risk to development outcome is rated **high**. There is concern about the sufficiency of finance in the Road Fund and the demands that may be placed on it. Risks in achieving the safety objective also depend on the Road Fund receiving the income it expects to be able to operate. Capacity constraints in the Ministry of Works and Transport (MoWT) and the Uganda Police during implementation are also a risk.

Lessons

3. The policy and institutional reforms to establish the ministry’s Road Agency took an inordinate time which might have been avoided if the Adaptable Program Loan had been used as intended with intermediate triggers to measure progress.

4. A well designed risk assessment and results framework is crucial for a strong project performance. Both the risk assessment and the results framework lacked stringency.
Objectives and Components

PROGRAM OBJECTIVE:

5. The program objective is to improve access to rural and economically productive areas by removing major constraints to transport services on the country’s road network. The program also supports actions aimed at further strengthening road sector management.

6. The PAD and the main text of the ICR similarly describe Project Development Objective”s (PDOs) as: i) Improve access to rural and economically productive areas by removing major constraints to transport services on the country”s road network. ii) Further strengthen road sector management. (This objective is vaguely worded; it does not indicate what strengthening has taken place or the outcome that is sought). The Development Credit Agreement (DCA) records the objectives as: i) Improve access to rural areas and economically productive areas; ii) Enhance the Borrower's road sector planning, design, program management capability, and road safety management. For the purposes of this PPAR, the DCA”s better worded PDOs are used as the basis for evaluation. The project objectives/key associated outcome targets were not revised during implementation.

PROJECT COMPONENTS:

| Part 1: Upgrading of main roads; upgrading of two high-priority national roads. (Estimate at appraisal: US$72.5 million. Cost at completion: US$84.9 million). The roads were Karuma-Oliwayo and Oliwayo-Pakwach; also the strengthening of the Katunguru-Fort Portal and Kasese-Mpondwe roads. |
| Part 2: Road safety improvement and audit study action plan. (Estimate at appraisal: US$5.1 million. Cost at completion: US$10.5 million). Civil works; Improve accident black spots (where road traffic accidents historically have been concentrated); Consulting services; Design and construction supervision of black spot improvements; Institutional support and capacity building; Enforcement equipment for the police |
| Part 5: Feasibility study and design of a national road agency building. (Estimate at appraisal: US$0.9 million. Cost at completion: US$0.4 million). |
Implementation Experience

Project Cost

7. Project cost at completion was US$106.33 million, US$9.33 million over the appraisal estimate of US$97.00 million. This was partly due to the depreciation of the dollar against the Uganda Shilling and a larger Borrower contribution. The Nordic Development Fund (NDF) agreed to finance Parts 4 and 5 above.

Financing

8. The IDA credit was in the amount of US$64.52 million and the final amount of full disbursement was US$75.70 million. Differences in the percentages are due to the depreciation of the US dollar against the SDR over the years.

9. The NDF was a co-financier in the amount of US$8.90 million, but only US$1.18 million was expended. This was due to delays in implementation and costs of these activities being higher-than-expected; the NDF had to seek additional financing, and the work on the pilot was continued after the project closed.

Borrower Contribution

10. The Borrower contribution was estimated at US$23.58 million at appraisal and was US$27.63 million at completion.

Dates

11. The project was approved on July 3, 2001 and closed on June 30, 2008; this was two years later than planned. The closing date was extended due to delays in the processing and awarding of contracts, as well as delays in releasing counterpart funding to pay contractors. The project became effective on April 11, 2002, nine months after approval. The first phase APL was still ongoing, but because of the urgency attached to the need to implement the National Road Safety Action Plan, and the readiness of NDF to contribute funding, it was decided to proceed with the second phase APL immediately, since triggers such as RAFU key personnel in place, had been met. However, there was no learning from APL-1 since it was still ongoing.

Fiduciary Aspects

12. Despite RAFU’s efforts to follow procurement plans, delays occurred. On some occasions the quality of procurement documentation was not up to standard, especially in the early stages of the project. Financial management reporting on the other hand was satisfactory. This was supported by a dedicated unit, a well-documented financial manual, and a fully computerized double entry accounting system. Satisfactory audits were received on a timely basis.
ENVIRONMENTAL AND SOCIAL SAFEGUARDS

13. This project was initially designated a “B” category, but after it was understood that it would pass through national park areas the category was changed to “A”. During preparation a full Environmental Impact Assessment (EIA) was accordingly undertaken and the Environmental Liaison Unit worked with the Uganda Wildlife Authority and the National Environmental Management Authority to ensure recommendations were carried out. Safeguards were in compliance with the World Bank Operational Directives. Socioeconomic data were collected and analyzed. Mitigation measures for social impacts such as HIV/AIDS prevention, and measures to reduce the frequency and severity of accidents were also addressed. No relocation was involved and only minimal land loss since the project involved upgrading existing infrastructure.

UNINTENDED IMPACTS

14. With the support of a Public Private Infrastructure Advisory Facility, the MOWT carried out a study aimed at outsourcing MOWT’s regulatory function to a Multi-Sectoral Transport Regulatory Authority (MTRA). However, it is unlikely to become operational before 2013.83

Monitoring and Evaluation (M&E)

Design

15. Indicators such as reduced travel time and vehicle operating costs were used for the road projects as well as traffic growth rates which were a questionable proxy for increased agricultural and industrial activity. Not all the increase in traffic, though, can be attributed to the latter. Other indicators were outputs such as plans and designs adopted and length of roads upgraded. Trigger indicators were also intended to monitor the program progress. No comprehensive M&E framework was provided specifying roles and responsibilities for achieving the indicators. However, NDF gave considerable attention to the design of the pilot to study innovative technologies for the management of low volume roads.

Implementation

16. Some indicators were modified during implementation to reflect progress in achieving the PDOs, but this became moot because Road Agency Formation Unit (RAFU) lacked the capacity to monitor such progress. For this reason the indicators were also not modified to take into account the project extension.

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Utilization

17. In hindsight it was realized that the M&E system could have been used to monitor implementation delays and this may have resulted in the issues being addressed more swiftly. Utilization, however, was negligible.

M&E overall was modest.

Relevance

Relevance of objectives substantial

18. The project was a component of the Government of Uganda’s (GoU) medium term strategy for the transport sector which, for roads, focused on the implementation of the ten year Road Sector Development Program conforming to the Letter of Development Policy annexed to the PAD. This letter states that the Government’s strategy hinges on the promotion of cheaper, efficient and reliable transport services as the means of providing effective support to increased agricultural and industrial production, trade, tourism, social and administrative services. The letter was still relevant at closure.

19. The program and project objectives were in line with the Bank’s CASs (1997, 2000, and 2005) all of which aimed to improve the reliability of access to infrastructure services and poverty reduction through a strategy where possible focused on private investment led growth. The objectives were also in line with the country’s 1998 Poverty Eradication Action Plan through the facilitation of the efficient and reliable provision of transport services, increasing agricultural production, enhancing linkages with neighboring countries, stimulating economic growth and promoting security in the country.

20. In practice, the project addressed continuing the upgrading and strengthening of the national roads, while maintaining the dialogue to support policy and institutional reforms for setting up UNRA and the Road Fund. This included enhancing road safety management, implementing a road safety action plan, and carrying out innovative technology on low volume roads.

Relevance of design substantial

21. As discussed under the evaluation of RDP-1, the move to a second phase was premature, because insufficient time had elapsed to fully benefit from the lessons of the first phase. Nevertheless, the design was relevant to the objectives, responsive to the country’s needs for promoting road safety and to the need to introduce new technologies.

Efficacy

Objective 1 Improve access to rural areas and economically productive areas high

22. The Project’s objective of improving accesses to rural and economically productive areas with market towns through upgrading selected priority road links was
highly achieved by improving 271 kilometers of primary roads. The 108 km Karuma-Oliwayo-Pakwach gravel road was upgraded to paved (bitumen) standard and 163 km of roads were strengthened including Katunguru-Fort Portal, Kasese-Mpondwe and Kasese-Kilembe. The Pakwach road also improved the connection to South Sudan and the other roads the link to the DRC. These eastern area roads served villages with good agricultural potential by improving access to and from the nearest markets. Traffic volumes on these roads increased over the baseline figures by more than 500 percent on average, exceeding the target of a 200 percent increase in traffic volume (which was likely a significant underestimation). The average travel time fell by between 48 and 68 percent. This exceeded the target of 30 percent, and vehicle operating cost decreased by 36 percent, exceeding the target of 20 percent.

23. The project improved the accessibility to the Queen Elizabeth National Park which has, according to the Uganda Wildlife Authority, experienced an increase of about 15 percent in the number of visitors since 2009. While this increase may not wholly be attributable to the improved roads, IEG considers this is likely to be the main factor from discussions with officials and tour operators.

Objective 2 enhance the Borrower’s road sector planning and management, and road safety management modest

i) Road sector planning and management

24. The National Transport Master Plan (NTMP) was prepared. The NTMP is now the basis of future road sector development and included the transport master plan for greater Kampala. This plan identified necessary infrastructure improvements for road, rail, water and air for 15 years starting in 2004/05. It also identified institutional gaps at the national and metropolitan levels.

25. The consultancy services for the feasibility study and design of a future UNRA headquarters building were funded by NDF. Construction supervision costs were not expended as the construction did not go ahead due to changed priorities. UNRA headquarters currently rents accommodation.

26. Implementation began on the NDF funded innovative low volume road design pilot demonstration project, which is a 41 km feeder road contract connecting Mutagga with Kapeeka north west of Kampala. The works comprise the upgrading of a gravel road to a class three bitumen road, but along the route are 16 trial research sections to serve as a testing ground for different pavement materials. This is particularly important in the Ugandan context since there are several areas of low-lying marshy terrain, where conventional materials are not always readily available and expensive to haul in. At closure of the RDP-2 only US$1.18 million had been expended. The bids for the work were higher than anticipated and the NDF had insufficient funds.

27. Since that time the works have proceeded with a funding split between NDF (35 percent) and GoU (65 percent). Completion is scheduled for end 2010 and the trial sections are to be scientifically monitored over a six year period by students from Kampala University, after which guidelines will be produced. The IEG mission visited
the site and considers this to be important work for the future sustainability of low volume district roads. Experience with the wearing properties of different materials will be of value in future design and should lead to future cost savings. For example, conventionally used Portland cement was being compared with cement made from local volcanic material, which has lower transportation costs.

**ii) Road safety management**

28. The first part of this sub-component involved the design and construction of safety improvements at accident black spots along the existing roads from Kampala to Jinja (twelve locations) and Kampala to Entebbe (four locations). The planned improvements on the Jinja road were carried out, but the four on the Entebbe road had to be cancelled to avoid conflict with urgent road rescaling activities ahead of the Commonwealth Heads of Government Meeting. IEG visited some of the black spot improvement sites and interviewed road users and user associations. Based on these discussions IEG concurs that the project has likely, but not conclusively, contributed to a reduction in the number of road accidents and road accident fatalities on the Jinja road. Reports by the police revealed only anecdotal evidence, since no „before-and-after“ accident figures were available, which highlights the importance of monitoring before after project completion.

29. A three-day training session for twenty RAFU, MOWT and Kampala City Council staff in road safety auditing was conducted and several publications were developed and distributed as part of the National Road Safety Action plan, notably sections of the engineering design manual including safety at road works, traffic signs and road markings; curricula for driving instructors and driving schools; trauma care training manuals for the Ministry of Health; accident report forms for the Uganda Police; and a Road Safety Audit Manual. Additionally, police enforcement equipment (including first aid kits, speed measuring instruments and breathalyzers) was procured. A traffic highway patrol unit was established and trained, but given the huge needs of traffic law enforcement the impact would mainly be demonstrative of what could be achieved in the future with more resources.

30. Evidence on the effectiveness of these measures is scarce, inconsistent and suffers from attribution problems. National accident statistics for Uganda show that between 2005 and 2007 (see Table 3.3) there was a 12 percent fall in the number of reported accidents, but only a two percent drop in injuries. During the same period the number of fatalities increased by 13 percent. When expressed as the number of fatalities per 100,000 people Uganda fares slightly better than regional and African average, but poorly in comparison to the world average (see Table 3-1). The World Health Organization in its country profiles indicates that in Uganda enforcement of laws regarding driving under the influence of alcohol, wearing of seat belts, and wearing of crash helmets by motorcyclists is poor. The proliferation of “boda boda” motorcycle taxis gives rise to concern both from the standpoint of accidents and from the viewpoint that the two stroke engines are highly pollutant.

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84 Global Status Report on Road Safety World Health Organization, Geneva, 2009
31. IEG rates this objective as modestly achieved because of the limited progress with the innovative road design pilot and the somewhat tenuous linkages between outputs and the goals (i.e. weak M&E). Better indicators would have produced more evidence, and it is surprising that accident records were not monitored on the Jinja road.

**Efficiency**

32. At project appraisal an economic analysis for investment on the project roads was carried out using the HDM-4 model at which time the consolidated ERR was 12.3 percent. The consolidated ERR on completion was calculated to be 18.4 percent, based on the physical 80 percent of the project cost. The higher ERR at completion was due to higher-than-expected traffic growth. Nonetheless, IEG notes that the impact of the late delivery of the benefits on the local economy was not measured in the HDM-4 model, which would probably have reduced the ERR closer to 16 percent. There were five civil works contracts, one completed on time, two with minor delays and two with substantive delays. Persistence of force account works execution continues to be an impediment to the development of the local contracting industry, which is unable to compete with international contractors and consultants, and is one of the main reasons why there are high unit costs of construction in Uganda. By reducing the force account skilled workers can be encouraged to start out as emerging contractors or render additional support to existing contractors. Despite these caveats, given that the ERR was still substantial and that under UNRA the force account unit has gradually been reduced, on balance the efficiency was **substantial**.

**Outcome**

33. The relevance of the objectives was substantial and the physical works objective was highly achieved. The capacity building and road safety objective was, however, only modestly achieved, while design relevance was also modest. The ERR for the project was in the acceptable range, despite the two year delay in completion. Taking into account these shortcomings, the outcome was **moderately satisfactory**.

**Risk to Development Outcome**

34. As with APL 1, IEG considers the risk to development outcome to be high for similar reasons, and in addition there are concerns regarding road safety, which while not a specific PDO, was an important component.

35. Although UNRA is now fully operational and the Uganda Road Fund was established by Act of Parliament in August 2008, the Road Fund only commenced operations in January 2010. While it was intended that the income to the fund would be raised from road user charges, primarily through a levy on fuel, it is of serious concern that this has yet to take place. Initial appropriations had to be provided from the Government’s consolidated fund. It will only now be possible to implement a fuel levy if the general revenue raising law (the Uganda Revenue Authority Act) is amended. Since this technicality should have been identified earlier, it creates uncertainty regarding the way ahead.
36. An additional challenge is that with effect from July, 2009 the responsibility for 10,000 km of district roads was transferred to UNRA without the requisite additional budget or the normal legal process for such a transfer. To add to this burden UNRA has had to take on some of the responsibility for road maintenance (mainly rehabilitation) in Greater Kampala—again without clarity on additional budget.

37. Over the previous ten years there was in reality only limited attention and resources devoted to road safety issues. Only under the ongoing Transport Sector Development Project is the matter receiving more serious attention. IDA, DFID and the Global Road Safety Facility have combined efforts, under a special stakeholder committee chaired by MOWT, to prepare a draft road safety policy and strategy and a draft law for the creation of a National Road Safety Authority (NRSA). The target date for the establishment of NRSA is July 2011. The Road Fund is expected to fund NSRA and also the creation of a crash database for the Uganda Police. Risks in achieving these objectives include the Road Fund receiving the funding it expects and capacity constraints in MoWT and the Uganda Police during implementation. The risk to development outcome rating is high.

**Bank Performance**

*Quality-at-Entry: moderately satisfactory*

38. In project preparation, the Bank project team added considerable value by providing experience gained through the Road Maintenance Initiative in sub-Saharan Africa in setting up institutional support mechanisms. It also drew on the knowledge of other donors involved in the RSDP. The necessary preparation included completion of a strategy to recruit technical specialists (not very successful initially), completion of bidding documents and pre-qualification of contractors.

39. While the use of the APL instrument provided flexibility in adapting project design and financing to evolving client needs, the triggers for this and subsequent phases of the project were not specifically linked to the achievement of road sector reform goals, so the project was not able to fully benefit from lessons learned from previous phases. Taking into account the weaknesses in procurement management experienced through the previous projects (RSISTAP and RDP-1) the team could also have been more proactive in assessing the contract management capacity of the implementing agency during project appraisal and strengthened it sufficiently to avoid the delays that occurred. It would have been better to have actually recruited additional staff and waited until funding was available because these were the same issues that caused the two year delay in implementation.

*Quality of Supervision: moderately unsatisfactory*

40. In supervision, the Bank team assisted the Borrower to adhere to a strategy to build institutional capacity, and provided advice on other cross cutting issues such as road safety, the transport master plan, and engineering research on innovative methods for

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construction of low traffic volume roads. There was proactive involvement of the Bank’s team to resolve day-to-day problems and the team had a good skills mix.

41. On the other hand, the team could have been much more effective in managing weaknesses in procurement management. Three large road contracts were substantially delayed for up to two years due to poor design and poor contract management. In response to these delays, the Bank team should have been more diligent in its evaluation of the project in the ISRs and in providing additional support in this area. Instead, it returned “satisfactory” ratings throughout the implementation period.

42. Taking into account the positive outcome of the project the overall Bank performance was moderately satisfactory.

**Borrower Performance**

*Government Performance: moderately satisfactory*

43. Despite the slow pace of decision-making over a ten year period, the Government finally implemented two crucial institutional reforms; UNRA became fully operational in July 2008, and the legislation consenting to a Road Fund, to enhance the financial sustainability of road maintenance, was passed. Both entities were staffed on a renewable performance contract basis and remuneration reflected the skills level individuals brought to the organization.

44. Although The Road Fund became operational in 2010 it was still funded by central government appropriations, pending further legislation to permit a fuel levy that requires an amendment of the Uganda Revenue Authority Act. This means that the funding stream is still not fully assured, especially in the light of recent moves to expand the national road network and make UNRA responsible for upgrading roads in Kampala.

45. Earlier in the project (2003/04), the GoU imposed budget cuts reducing by 10 percent provisions for road maintenance in that year. There were also delays in releasing counterparts funds during this period and as a result some payments to contractors was delayed (the Government owed contractors the equivalent of US$5.92 million in 2006). Most of these arrear payments to contractors were eventually cleared prior to project closing and the situation in respect of maintenance provision and counterpart funding had also improved to acceptable levels by project closure.

*Implementing Agency Performance: moderately satisfactory*

46. RAFU (until its replacement by UNRA) was the key implementing agency for RDP-2. To promote efficiency, RAFU appointed, when possible, highly qualified core staff in the engineering, finance and administration divisions on a performance basis; it was a challenge, however, for RAFU to recruit experienced and qualified staff due to a scarcity of skilled personnel in the country. Low capacity in the procurement division was also one of the main reasons for poor monitoring of the performance of consultants and contractors. Following Bank recommendations, procurement teams comprised of both international and national professionals improved the situation substantially.
47. The award of two large civil works contracts was delayed by 14 months and ten months respectively due to insistence by MOWT/RAFU not to award both contracts to the lowest qualified bidder, alleging that the bidder would not be able to perform well on both the contracts. The MOWT’s recommendations were thus not consistent with Bank procurement guidelines. MOWT eventually followed the Bank’s advice and awarded both contracts. However, this back-and-forth situation over a protracted period caused delays which led to higher contract price adjustment figures.

48. The contract for improvement of accident black spots also suffered delays due to a complaint raised by one of the bidders. The matter was referred for an administrative review with a time loss of about eight months.

49. RAFU did not monitor the agreed indicators of growth in traffic volumes, reduced travel time and savings in vehicle operating costs until the Bank gave ratings for M&E as “unsatisfactory” in the ISR. Regarding weak contract management, after interaction with the Bank, RAFU formed teams consisting of both foreign and national professionals. This improved inter alia the procurement function.

50. Overall Borrower Performance: moderately satisfactory
Appendix 1. Basic Data Sheets Uganda Second Phase of the Road Development Project (Credit 3544-UG)

### Key Project Data (amounts in US$ million)

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Date of final disbursement : December 2008

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<td>Yitzhak A. Kamhi</td>
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<td>Stephen J. Brushett</td>
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<td>LCSTR</td>
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<td>Supee Teravaninthorn</td>
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<td>Labite Victorio Ockaya</td>
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<td>C. Sanjivi Rajasingham</td>
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<td>Anil S. Bhandari</td>
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<td>Moma Chee</td>
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<td>Olav E. Ellevset</td>
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<td>Jonas Per Hermanson</td>
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<td>Nina Jones</td>
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UGANDA
ROAD WORKS DESIGNED UNDER RSISTAP
TO BE EXECUTED UNDER THE
ROAD DEVELOPMENT PROGRAM PHASE 1–2

- RDPP1 COMPLETED
- RDPP2 COMPLETED

Source: Uganda National Roads Authority

This map was produced by the Map Design Unit of The World Bank. The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.
TANZANIA
CENTRAL TRANSPORT CORRIDOR PROJECT

UPGRADING OF STRATEGIC LINKS:
- Civil Works and Supervision of Rehabilitation and Upgrading to Bitumen Standards
  Singida-Babati (172 km)
  Dodoma-Babati (266 km)
  Dodoma-Mtangata (266 km)
  Dodoma-Mtangata (286 km)
  Dodoma-Mtangata (286 km)
  Dodoma-Mtangata (286 km)
  Dodoma-Mtangata (286 km)
  Dodoma-Mtangata (286 km)

- Feasibility Studies and Detailed Design of Rehabilitation
  Singida-Babati (222 km)
  Korogwe-Mtangata (7.2 km)
  Tanga-Horohoro (9.2 km)
  Tanga-Horohoro (9.2 km)
  Tanga-Horohoro (9.2 km)
  Tanga-Horohoro (9.2 km)
  Tanga-Horohoro (9.2 km)
  Tanga-Horohoro (9.2 km)

- Rehabilitation of Two Ferries and Supply of Three New Ferries

IMPROVING OF TANZANIAN RAILWAYS PERFORMANCE:
- Zanzibar Transport Master Plan Study
- Dares Salaam Traffic Management Study and Bus Way
- Concessioning of TRC

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