

Document of
The World Bank

Report No: ICR2154

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-39910)

ON A

CREDIT

IN THE AMOUNT OF SDR 75.60 MILLION
(US\$110 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MOZAMBIQUE

FOR A

BEIRA RAILWAY PROJECT

June 27, 2012

Transport Sector
Country Department AFCS2
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2011)

Currency Unit = New Mozambique Metical (MZN)
SDR 1.00 = US\$1.54 US\$ 1.00 = MZN 26.76

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CCFB	<i>Companhia dos Caminhos de Ferro da Beira</i> (Beira Railway Company)
CFM	<i>Portos E Caminhos de Ferro de Mo gambique, E.P</i> (Mozambique Ports and Railways Enterprise)
DCA	Development Credit Agreement
EIB	European Investment Bank
ERR	Economic Rate of Return
GoM	Government of Mozambique
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
IDA	International Development Association
IFC	International Finance Corporation
ISR	Implementation Status Report
M&E	Monitoring and Evaluation
MIGA	Multilateral Investment Guarantee Agency
MTPA	Million Tons per Annum
NPV	Net Present Value
PAD	Project Appraisal Document
PARPA	Action Plan for the Reduction of Absolute Poverty
PCN	Project Concept Note
PDO	Project Development Objectives
PIU	Project Implementation Unit
SADC	Southern Africa Development Community
SDR	Special Drawing Rights

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REPUBLIC OF MOZAMBIQUE
BEIRA RAILWAY PROJECT

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Data Sheet			
A. Basic Information			
Country:	Mozambique	Project Name:	Beira Railway Project
Project ID:	P082618	L/C/TF Number(s):	IDA-39910
ICR Date:	06/27/2012	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	GOVERNMENT OF MOZAMBIQUE
Original Total Commitment:	XDR 75.60M	Disbursed Amount:	XDR 74.21M
Revised Amount:	XDR 75.31M		
Environmental Category: B			
Implementing Agencies: Portos E Caminhos De Ferro de Mocambique (CFM)			
Cofinanciers and Other External Partners:			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	04/24/2003	Effectiveness:	03/15/2005	03/15/2005
Appraisal:	06/21/2004	Restructuring(s):		03/31/2009 12/22/2011
Approval:	10/14/2004	Mid-term Review:		07/14/2008
		Closing:	06/30/2010	12/31/2011

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Unsatisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Unsatisfactory
Borrower Performance:	Moderately Unsatisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Unsatisfactory	Government:	Moderately Unsatisfactory
Quality of Supervision:	Unsatisfactory	Implementing Agency/Agencies:	Moderately Unsatisfactory
Overall Bank Performance:	Unsatisfactory	Overall Borrower Performance:	Moderately Unsatisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Unsatisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Railways	100	100
Theme Code (as % of total Bank financing)		
Infrastructure services for private sector development	25	25
Regional integration	25	25
Trade facilitation and market access	50	50

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Callisto E. Madavo
Country Director:	Laurence C. Clarke	Michael Baxter
Sector Manager:	Supee Teravaninthorn	C. Sanjivi Rajasingham
Project Team Leader:	Henry Des Longchamps Deville	Anil S. Bhandari
ICR Team Leader:	Henry Des Longchamps Deville	
ICR Primary Author:	Bernard Aritua	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The objectives of the Project are to: (i) make cost effective and efficient transport available for the freight and passenger traffic in the Zambezi valley to accelerate economic growth and reduce poverty in the sub-region; (ii) increase international traffic through the Beira Railway System; and (iii) ensure the operational, managerial and financial sustainability of the Beira Railway System.

Revised Project Development Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Freight and passenger traffic develops on Sena Line (metric tons per annum)			
Value quantitative or Qualitative)	0	1,000,000		266,000
Date achieved	12/13/2004	12/31/2009		12/15/2011
Comments (incl. % achievement)	27% of the target was achieved. The line was open to coal traffic on August 8, 2011 after a temporary tariff agreement with the coal miners. However, the delay in rehabilitation has contributed to potential traffic seeking alternatives.			
Indicator 2 :	International traffic from Zimbabwe on Machipanda Line, increase by 30%			
Value quantitative or Qualitative)	498,000	650,000		387,700
Date achieved	12/13/2004	12/31/2009		12/15/2011
Comments (incl. % achievement)	60% achieved. The traffic on this line is mainly from coal, sugar and molasses. The potential for increased traffic on this line is good (and evidenced by increase in road traffic), but poor infrastructure prevents the rail to get its share.			
Indicator 3 :	Link to Malawi Railways established			
Value quantitative or Qualitative)	No	Link to Malawi established		No
Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	0% achieved. Feasibility studies have been completed, but decision to rehabilitate has been postponed as it depends on decision to rehabilitate the line in Malawi to Blantyre.			
Indicator 4 :	Road link to Zambia at Moatize opened to traffic for multi-modal transport to Beira.			
Value quantitative or Qualitative)	No road link.	Road link established at Tete		Road link opened.
Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	100% achieved. Road link established and could potentially carry traffic from Zambia but current demand for Sena line by the coal miners has taken priority.			
Indicator 5 :	Beira Railway system operations: reliability			
Value quantitative or Qualitative)	Track under temporary restriction - 10%; Locomotives: average km between failures - 10,000; Wagon delays between demand and supply - 4 days	Track under temp restriction 2% Locomotives avg km between failures 100,000 Wagon delays between demand and supply 2 days		16.6%

Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	0% achieved: the poor reliability is attributed to on-going repairs on the Sena line. The Machipanda line is estimated to be 50% under restriction, with maintenance issues on both infrastructure and equipment responsible for the problem.			
Indicator 6 :	Improve staff productivity: (net-ton kms plus pass-kms) per employee per annum.			
Value quantitative or Qualitative)	0.35 million traffic units per employee per annum	1.30 million traffic units per employee per annum		0.9 million traffic units per employee
Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	69.2% achieved			
Indicator 7 :	Improve working ratio			
Value quantitative or Qualitative)	100% gross	70%		unknown
Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	0 % achieved. The line was still requiring cash injection for operation at the end of the project.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Rehabilitation of Sena Line - 600 km			
Value (quantitative or Qualitative)	30 km re-constructed	575 km to Moatize		Line achieved to Moatize
Date achieved	12/13/2011	12/31/2009		12/31/2011
Comments (incl. % achievement)	100% achieved. First coal train left Moatize for Beira on August 8, 2011. However the line was completed two years later than expected and significant investment is still required for its safety and reliability.			
Indicator 2 :	Rehabilitation of Machipanda Line - 317 km			
Value (quantitative or Qualitative)	0 km	317 km		0 km
Date achieved	12/13/2004	12/31/2009		12/31/2011
Comments (incl. % achievement)	0% achieved. No rehabilitation and very poor (if any) maintenance during the Concession period. The Machipanda line has deteriorated further and is in fact in a worse condition than at the start of the project.			

G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	12/13/2004	Satisfactory	Satisfactory	0.00
2	05/17/2005	Satisfactory	Satisfactory	0.00
3	11/20/2005	Satisfactory	Satisfactory	9.06
4	06/20/2006	Satisfactory	Satisfactory	18.09
5	12/29/2006	Satisfactory	Satisfactory	32.30
6	06/27/2007	Satisfactory	Satisfactory	48.77
7	12/13/2007	Satisfactory	Satisfactory	69.55
8	06/27/2008	Moderately Satisfactory	Moderately Satisfactory	76.24
9	12/23/2008	Moderately Satisfactory	Moderately Satisfactory	85.02
10	06/24/2009	Moderately Satisfactory	Moderately Satisfactory	98.54
11	12/22/2009	Satisfactory	Satisfactory	111.05
12	06/22/2010	Satisfactory	Satisfactory	112.11
13	03/15/2011	Moderately Unsatisfactory	Moderately Unsatisfactory	113.81
14	09/25/2011	Moderately Unsatisfactory	Moderately Satisfactory	113.81
15	01/12/2012	Unsatisfactory	Unsatisfactory	113.81

H. Restructuring (if any)

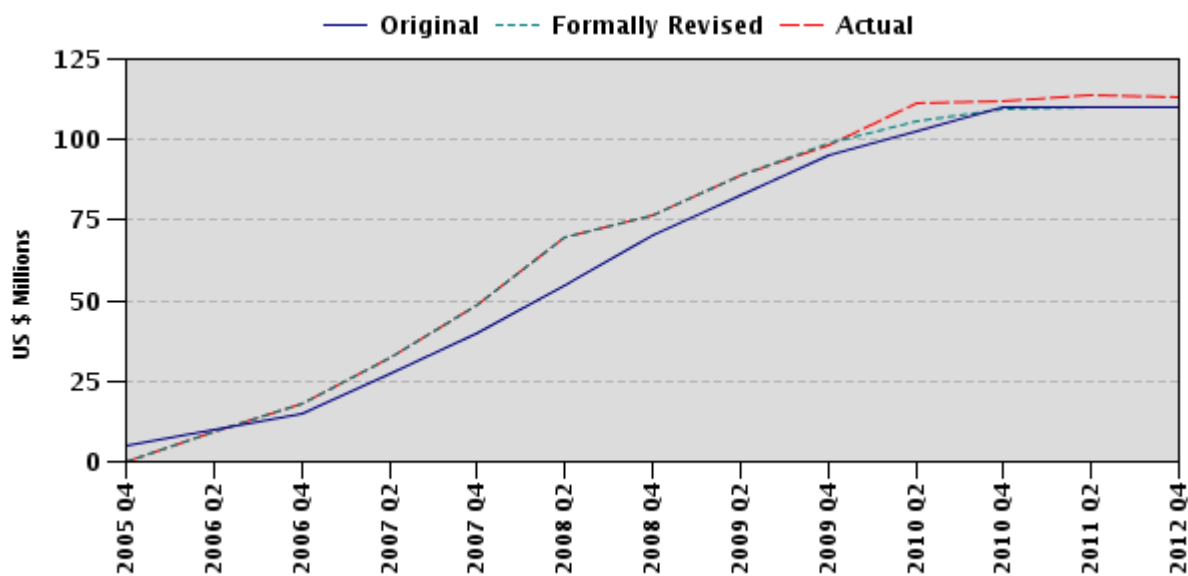
Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
03/31/2009	N	MS	MS	89.90	Reallocation of the Credit Proceeds between the expenditure categories to the rail Concessionaire. Also amended was an increase to the percentages of disbursement financing ratio to 100 percent and the Project closing date was extended 18 months from June 30, 2010 to December 31, 2011.
12/22/2011	Y	MU	MS	113.81	Reallocating the credit proceeds again between the expenditure categories which was made possible by a savings on the CCFB category 1 and 2.A which allowed for the purchase of new rail for sections of the line that were not properly appraised, full utilization of the initial contract value for the Project Implementation Unit, and covered the Project Accounting Section costs and technical

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
					assistance consultancy services. Category six, an unallocated amount was cancelled making the final total value of the project SDR75.31 million.

If PDO and/or Key Outcome Targets were formally revised (approved by the original approving body) enter ratings below:

	Outcome Ratings
Against Original PDO/Targets	
Against Formally Revised PDO/Targets	
Overall (weighted) rating	Unsatisfactory

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

1. The Republic of Mozambique has sustained rapid economic growth since achieving peace in 1992. This growth is largely attributed to a transition from a state-owned economy into a market-oriented one. The Government of Mozambique's (GoM's) *Action Plan for the Reduction of Absolute Poverty 2001/2005* (PARPA) emphasized economic growth, public investment in human capital and productive infrastructure, and institutional reform to improve the environment for private investment.

2. Mozambique's dependence on regional trade and investment flows is high, and regional developments significantly influence the pace and sustainability of its own development. The PARPA was therefore designed in the context of Mozambique's strategic regional location. In 1999, Mozambique ratified the Southern Africa Development Community (SADC) trade protocol, which aims to establish a free trade area in Southern Africa. Effective functioning of the transport sector - roads, railways, airports, and seaports - in the country is critical for maintaining the momentum of regional integration and for managing the increased interdependence between Mozambique and its neighbors. This is particularly relevant within the Maputo, Beira and Nacala corridors which are part of the development strategy for regional integration of SADC.

3. To address the bottlenecks hindering transport from contributing towards economic growth, the GoM embarked on wide-ranging transport sector reforms. In the railway and port sub-sectors, the reforms focused on involving the private sector in the management and operation of railways and ports with a view to mobilizing private capital and improving efficiency of operations.

4. In the central regions of Mozambique, the Beira Railway System was the main transport system and the line served a population of over four million. Although the Machipanda line connecting Beira to Zimbabwe was operational, it was in poor condition and needed urgent improvements. The Sena Railway Line, connecting Beira to Tete on the Zambezi River, was severely damaged during the conflict of the 1980s and had been non-operational since 1983. Poor transport connectivity of the areas located along the Zambezi River to the port of Beira adversely affected the growth of the region and slowed regional trade and investment flows. The rehabilitation of the Beira Railway System was therefore thought to be a priority for Mozambique. During this period, plans were drafted to Concession the Moatize coal mines, and the Sena Line was earmarked as the transport link between the mines and port. It was expected to handle an annual flow of three to five million tons of coal.¹ The association between the rail rehabilitation and the coal development was made early and documented within the Bank, through the involvement of the International Finance Corporation (IFC).

¹ Strategic Options review, IFC 2003

5. The rationale for the Bank's involvement was its long-standing association with Mozambique and hence a good understanding of the development issues in the region. Moreover, the Bank had supported restructuring, revitalization and privatization projects in the railway sector in neighboring countries of Malawi, Zimbabwe and Zambia. Further, the Bank was already supporting restructuring programs to improve the operating efficiency of three major railway and port systems in Nacala, Beira and Maputo.²

6. The Beira Railway Project was prepared at a time when, despite the rapid economic progress made by Mozambique, few private sector investors would have considered Mozambique a favorable investment destination. The level of country risk would not have attracted many investors to a railway system that had not been functional for over 10 years. As a result the Bank, through its International Development Association (IDA) concessional financing, was the only reliable partner capable and willing to support this Project.

7. It is against this background, and in line with the Bank's Country Assistance Strategy (CAS) of 2003 that the Beira Railway Project was set up.

1.2 Original Project Development Objectives (PDO) and Key Indicators

8. The goal of the Beira Railway Project was to improve the rail system in order to support economic growth through regional integration and connectivity of areas along the Zambezi River and the port of Beira.

9. The objectives of the Project were to: (a) make cost effective and efficient transport available for the freight and passenger traffic in the Zambezi valley to accelerate economic growth and reduce poverty in the sub-region; (b) increase international traffic through the Beira Railway System; and (c) ensure the operational, managerial and financial sustainability of the Beira Railway System.

10. The key Project development indicators against which the Project would be measured were:

- Freight and passenger traffic develops on Sena line from 0 to 1,000,000 metric tons per annum by the end of the Project in December 2009;
- International traffic from Zimbabwe on the Machipanda line increasing by 30 percent (from 498,000 metric tons in December 2004 to 650,000 metric tons by the end of the Project in December 2009);
- Link to railways in Malawi established by the end of the Project in December 2009;
- Road link to Zambia at Moatize opened to traffic for multi-modal transport to the port of Beira by the end of the Project in December 2009; and
- Beira Railway system operating reliably with:
 - Track under temporary restriction falling from 10 percent in December 2004 to 2 percent by the end of the Project in December 2009;

² Project Reference P042039

- Average km between failure of locomotives from a base of 10,000 in December 2004 to 100,000 by the end of the Project in December 2009;
- Wagon delays between demand and supply from four days to two days by the end of the Project in December 2009; and
- Staff productivity (net-ton km plus pass-km per employee per annum in millions) rising from 0.35 to 1.3 by the end of the Project in December 2009.

1.3 Revised PDO and Key Indicators, and reasons/justification

11. The PDOs and indicators were not revised during the Project's life.

1.4 Main Beneficiaries

12. The Project was expected to have a catalytic impact on growth, open the Zambezi valley to private sector investments, reduce the transport cost of exports from the central region, restore the livelihood of thousands of households disrupted by the prolonged war, and promote regional integration. Although the Project beneficiaries were not explicitly identified in the Project Appraisal Document (PAD), the document points to the following:

- Mozambique's mining and agriculture sectors, whose development was directly linked to the improvement of heavy haul transport infrastructure and trade facilitation.
- The GoM, which could reasonably anticipate fiscal revenues resulting from an efficient transport system, particularly in regard to development of the coal mining industry. The GoM would also have benefited from the associated institutional strengthening leading to meaningful engagement with the private sector.

1.5 Original Components

13. The Project was packaged as a Concession with three components:

- Component 1: Rehabilitation and operation of the 600 km Sena Railway (US\$127.5 million) – rehabilitation, maintenance and operation of the Sena railway line between Dondo and Moatize to enable the Sena railway line to carry all freight and passenger traffic on offer. IDA financed.
- Component 2: Improvement and operation of the 317 km Machipanda Railway Line including its maintenance and operation (US\$25.0 million). – continue operation on the line and undertake rehabilitation to improve the state of infrastructure. To be financed fully by the Concessionaire.
- Component 3: Institutional strengthening (US\$5.5 million) – provision of technical assistance, training and consultancy services to the Mozambique Ports and Railways Enterprise (CFM) so as to enhance its capacity to oversee implementation of the Project, implement its restructured functions, supervise the construction and rehabilitation works, facilitate independent technical and financial audits, conduct transport sector studies, and prepare its long term railway and ports development plans. IDA financed.

1.6 Revised Components

14. The components were never revised during the life of the Project.

1.7 Other significant changes

15. At the request of the GoM, the Project was restructured twice. The first restructuring, on February 13, 2009, reallocated the credit proceeds between the expenditure categories to the rail Concessionaire. Also amended was an increase to the percentages of disbursement financing ratio to 100 percent (originally it was 100 percent foreign expenditures and 86 percent local expenditures for Categories 1 and 3, Category 2 (b) had 100 percent of foreign and local expenditures (ex-factory cost) and 86 percent of local expenditures for other items procured locally; and Category 5 was 86 percent) and the Project closing date was extended 18 months from June 30, 2010 to December 31, 2011. This restructuring was approved at the Country Director level.

16. The second restructuring, on December 30, 2011, amended the Development Credit Agreement (DCA) by reallocating the credit proceeds again between the expenditure categories, which was made possible by a savings on the *Companhia dos Caminhos de Ferro da Beira* (Beira Railway Company) (CCFB) category 1 and 2.A which allowed for the purchase of new rail for sections of the line that were not properly appraised, full utilization of the initial contract value for the Project Implementation Unit (PIU), and covered the Project accounting section costs and technical assistance consultancy services. Under category six, an unallocated amount of Special Drawing Rights (SDR) 290,000 was cancelled, making the final total value of the Project SDR 75.31 million. This restructuring was approved at the Regional Vice President level.

17. There were no changes made to the PDOs, components or indicators.

2. Key Factors Affecting Implementation and Outcomes

18. Overall, the Project failed to achieve its PDOs. This can mainly be attributed to the fact that it was set-up without a clear understanding of the fundamentals of concession agreements and because the supervision was ineffectual. The 25 year Concession contract signed August 30, 2004 was terminated on September 19, 2011. Rehabilitation of the Sena line was expected to be completed within four years but was delayed by over two years. Several technical issues remain, posing latent risks to the safety of the operation of the Sena Line and to its ability to handle the freight and passenger traffic volume expected (see Annex 2 for details). On the Machipanda line, insufficient maintenance of both the line and rolling stock and numerous derailments since handover to the Concessionaire left it to deteriorate further, rather than being rehabilitated as was envisaged.

2.1 Project Preparation, Design and Quality at Entry

19. The Beira Railway Project was pivotal to the 2004-2007 CAS for Mozambique. The first pillar of this CAS was to improve the investment climate, and the Beira Railway Project was identified as a potentially transformative Project that would have a significant impact on the economic growth aspirations of Mozambique. This was the first CAS prepared by the World Bank as a joint effort of the IDA, IFC, and Multilateral Investment Guarantee Agency (MIGA). This confirmed the strong emphasis of the CAS on strengthening the investment climate and private sector participation.

20. The PDOs were realistic and aligned to the overall aspirations of Mozambique as captured in the PARPA and CAS. The Project was timely because it was developed more than 10 years after the conflict, during a time of unprecedented economic growth. It therefore had the potential to genuinely catalyze investment and position Mozambique to take advantage of its regionally strategic location. Some of the factors relating to preparation, design and quality at entry that affected the Project are discussed below.

a) Alternative Project Designs

21. As shown in Table 1 which is based on the PAD, six different project design options were considered. All options considered a concession as the point of engagement with the private sector.

Table 1 – Project Design Options in the PAD

Alternative	Decision taken
<i>Alternative 1</i> – integrate coal mines/ports/rail under single concession	Rejected due to waiting times required to align procurement, and political cost of waiting.
<i>Alternative 2</i> – two phased concession; initial phase to lower standard and subsequent phase to level of actual freight traffic	Rejected due to financial commitments and potential unacceptability to rail concessionaires.
<i>Alternative 3</i> – rehabilitate Sena line to ultimate standard using concession	Rejected due to uncertainty of coal traffic and marginal savings.
<i>Alternative 4</i> – rehabilitate and then concession operation	Rejected due to lack of funding, uncertainty of coal traffic and latent risks due to suspicions about condition of line.
<i>Alternative 5</i> – separate concessions for Sena and Machipanda Lines	Rejected due to uncertainty about attractiveness to private concessionaire.
<i>Alternative 6</i> – phased rehabilitation of Sena line but single concession in which concessionaire is responsible for upgrading both Sena and Machipanda	This final option, which is a hybrid of 2 and 3, was chosen.

22. Central to all the alternatives seems to have been the relationship between the railway lines, the ports and the coal mines. It therefore seems reasonable to assume that effort would have been made to establish a clear understanding of the volumes of coal and the potential private sector interest at the earliest opportunity. This would no doubt have influenced the nature of the Project design. A phased approach was chosen as the preferred option. The Project concept documents stipulated that the phased approach would take account of the expected increase in forestry and agricultural goods, and all expected coal traffic. The rationale for such an argument would have been credible if sufficient data was available to back-up the stipulations. Moreover, international best practice also shows that a phased construction project usually involves several assumptions and many such projects are plagued by financing and construction challenges.

23. At a fundamental level, the Project had the potential to be designed as a means to an end; as an efficient logistics link targeting the major users. Hence further investigation of the volumes of coal and the potential revenues might ultimately have influenced other decisions regarding ownership of the assets, train operations, and network regulation.

24. In all fairness, the concept of separating infrastructure management from train operations, with clear generation or allocation of revenues and costs was not part of the World Bank conceptual tools until recently. At the decision meeting³ and the negotiations⁴ for the Project, none of these issues were discussed. This points to the clear conclusion that there was no understanding of basic drivers for a successful rail business model. The same lack of awareness happened at the technical level of the Project design: that is why the 25 km of line rehabilitation between Dondo and Beira was completely overlooked, because it was “ok” from an engineering perspective, and because it was considered part of the Machipanda line, not the Sena line. As a result, the vital link to the Port of Beira for traffic coming from Tete/Moatize was not assured.

b) Selection of bidders

25. The Project design was optimistic about the potential for private sector participation in the rail Concession, in part and self-admittedly (Project Concept Note (PCN) and PAD), because the railway system would not develop fully without the coal development, and a link to the coal miners. Unsurprisingly, few bidders expressed interest in the Project. Moreover, all the shortlisted companies had limited experience in private sector construction, operation and management of rail systems. The consortium which went on to win the Concession had consultancy experience in Mozambique, Zimbabwe and Malawi. Nevertheless, they had no proven experience of actually running successful rail operations.

c) Concession design and incentive structures

26. Concession contracts work best when underpinned by clear separation of roles between the Principal (in this case public sector Client) and Promoter (Concessionaire). This provides the right framework for risk sharing and incentives.⁵ In the Beira Railways Concession, CCFB’s shareholding was split between the Concessionaire with 51 percent shareholding and the GoM’s state-owned company *Portos e Caminhos de Ferro de Moçambique* (Mozambique Ports and Railways Enterprise) (CFM) with 49 percent shareholding. This shareholding structure, while having some merits, meant that the Principal had little and in some cases no leverage on major decisions.

d) Institutional arrangements

³ Minutes of Decision Meeting, Beira Rail Project, June 2, 2004

⁴ Agreed minutes of Negotiations, Beira Rail Project, Aug.30-Sept.02, 2004

⁵ Merna A and Njiru C, Financing Infrastructure Projects. Thomas Telford, London 2002

27. The way that the Beira Railways Concession had been set up obscured the roles of the parties. It was unclear whether the public sector shareholder (CFM) was a regulator, policy maker, client or operator. In fact in the course of the Project, CFM played all these roles; at times simultaneously.

28. This complicated the negotiations over the coal tariff with the off-taker (coal mining companies). While the private shareholder was trying to negotiate a coal tariff with the mining companies under the stipulations of the Concession Agreement, parallel negotiations were held between the Ministry of Mines and the same mining companies to set up mining Concession Agreements. There was therefore no incentive for the mining companies to negotiate a fair value for the rail access - when clearly for them the best option would have been to work towards taking over the rail line and combining the rail and coal mining Concessions.

29. Eventually, a combination of poor project management, poor business skills and disputable staff management by CCFB contributed to mistrust and frustration during the coal tariffs negotiation process and undermined the Concession.

30. From 2009 onwards, and following several reports of delays and management issues, the Government sent several warnings and threats to terminate the Concession. The absence of an independent ombudsman meant that it was difficult to improve relations between the parties once they began to deteriorate. The poor performance of the Promoter and the nature of the Concession agreement left the Principal powerless and increasingly frustrated. This eventually culminated in early termination of the Concession.

31. Another institutional issue that resulted from the design of the Project was that the remit of the Independent Engineer was limited to providing technical opinions about the work without any real authority to instruct remedial work. Hence, the Independent Engineer's advice, though sound, was largely ignored by the Concessionaire and the public shareholder was powerless to influence any action due to the nature of the Concession design.

2.2 Implementation

32. The factors that affected the implementation are associated with management, supervision and Concession risks.

a) Management Issues

33. Ensuring the quality of the rehabilitation works was one of the greatest challenges. Although the PIU was set up to ensure delivery of Concession objectives, and because more than 65 percent of the Project's total value was awarded to companies affiliated with the Concessionaire, the PIU eventually acted on behalf of the Contractor. Despite all the documented delays, the Contractor was never penalized, and all requests by CFM for the PIU to take action against the Contractors for poor execution of the works were ignored.

34. Project control was weakened by this blurred relationship between CCFB/PIU and the Contractors, and by the Contractor's weak planning and design capabilities. A typical example

can be found in the procurement of ballast, where relaxation of specifications (against protests by CFM and the Independent Engineer) was granted in order to solve the Contractor's procurement issues. Moreover, CCFB also lacked capacity to organize the logistics required by the works as well as co-ordinate train operations, and struggled to meet rolling stock requirements. Thus at a managerial level, the Concessionaire lacked the competencies for the undertaking.

35. Fundamentally, under concessions the Promoter and Construction Contractor are free to contract with whichever company; including subsidiaries and even affiliated companies.⁶ The issue of sub-contracting in concessions is not so much the level of sub-contracting as control by the Principal (Client). The real emphasis for any Principal (Client) in a concession agreement should be to monitor the outcome based on clear performance indicators.⁷ In the case of the Beira Railway Project, however, this monitoring was not effective. In addition, it may be argued that the subcontracting model adopted in this Project may have created a conflict of interest with negative effects. For example, towards the end of the Concession, one of the sub-contractors affiliated to the Concessionaire made claims for US\$20 million, which are difficult to verify and, although apparently unjustified, will end up as a liability for the Government under the arbitration process. Such procurement autonomy led to difficulties on the Project. Moreover, the affiliation between the majority shareholder in the Concessionaire and the Contractors may have reduced the Promoter's interest and ability to enforce the recommendations of the Independent Engineer and the conceding authority on service standards and works quality.

b) Supervision Issues

36. The impact of isolated events and project management issues were exacerbated by the lack of adequate supervision.

37. From a project perspective, and despite the available funding, the PIU's supervisory capacity was limited by lack of facilitation (transport in particular) and human resources. The best skilled engineers were prematurely sent back home by the Concessionaire, and subsequently replaced by incompetent staff, with the approval of the PIU. Despite repeated objections by CFM and the GoM, no action was taken to reverse these decisions.

38. From the Government's perspective, the reliance on CFM to provide supervision was biased by CFM's 49 percent shareholding in the Concession, which indirectly engaged the Government into the internal decision-making process and made it difficult to monitor independently the supervisory tasks. Typical of this limitation was the implementation of Component 3 (Institutional Strengthening) which was under the control and the supervision of CFM, who could not in effect enforce recommendations from the Independent Engineer and corresponding corrective actions.

⁶ Yescombe, E Principles of Project Finance, Elsevier Press. 2002

⁷ Weber, B and Alfen, H, W Infrastructure as an Asset Class: Investment Strategy, Project Finance and PPP, Wiley Finance, 2010

39. The strained relationship between the conceding authority and the Concessionaire was evident from the start of the Project - with disputes over construction phase delays, incomplete construction works, poor quality of work, health and safety issues, and poor labor relations.

40. Remarkably, all of the Bank's supervision reports during the critical stages (2005-2010) gave the Project an overall rating of *satisfactory or moderately satisfactory*. Despite the virulent correspondence between the parties to the contract and the persistent negative reports by the Independent Engineer regarding the rehabilitation works on the Sena Line, the Project ratings were never revised and as a result corrective action was never taken. It is evident from the Project documentation that the Bank supervision team did not have the requisite technical engineering skills and competencies to make sense of the implications of the issues raised by the Independent Engineer. Strong technical skills are critical for all major infrastructure projects but more so for rail concessions where important decisions require a detailed understanding of how infrastructure is designed, constructed, operated and maintained. Without this expertise the Bank team was in many instances unable to adequately supervise the contract or identify problems early enough. However, the discrepancies between the Bank supervision reports and the Independent Engineer's reports are concerning.

41. There were 15 Implementation Status Reports (ISRs) and 36 Independent Engineer reports during the Project implementation period. The Implementation Completion and Results Report (ICR) review team examined each of these reports, and numerous evidence points to significant discrepancies between the two sets of reports. An extensive comparative exercise would be interesting; however, for the purposes of this ICR an example to highlight the key conclusion of our examination suffices to illustrate the discrepancy. On Dec.13 2007, a Bank mission produced an ISR⁸ which concluded that: "Progress in the construction of the Sena Line is satisfactory and the first phase (Dondo to Marromeu) is expected to be opened early 2008." One month later, the Independent Engineer's report concluded that "**it is now abundantly clear that the targeted date of April 09 will not be met**"⁹ adding that "all these factors compounded, are negatively impacting on Project control, monitoring and follow-up of works, productivity, quality control etc...". It is difficult to discern the reasons for such discrepancies, but it is clear that the safeguards in place during implementation (ISR, Aide-Mémoires, Back-to-Office-Reports) failed to raise at least some concerns to management level. As a result, the issues plaguing implementation were not addressed at the Mid-Term Review, and the Client's and Independent Engineer's concerns only began to be reflected by ISRs in late 2010. By then, the Credit had already been almost fully disbursed, and there was little scope to restructure the Project. Considering that Bank management took part in some of the supervision missions and was generally active in this Project, what seems to have been unique was their inability to force a course correction in the Project within its first two to three years, when it became rapidly obvious that the expectations assigned to the Project were not going to be met.

42. It was only after IDA funding had been substantially disbursed and senior management was alerted by the Client to the threat of termination of the Concession in 2009, that issues were

⁸ ISR #7

⁹ The author's bold format. (Engineer report n.18)

raised. At that point the Bank had lost its leverage. Importantly, the change of Bank supervision and management which coincided in 2010/2011 with similar changes at sector and country level allowed the Bank to appreciate the seriousness of the escalation of the conflict between the GoM and the Concessionaire. This in turn led Bank management to demand for a more candid and realistic approach on the closing of the Project and eventually the evaluation of its outcome.

c) Identification of risks and mitigation measures

43. The Project preparation team carried out a risk identification which gave an overall *medium* rating to the Project risks and proposed some mitigation measures for the key risks identified. Most of the risks related to the construction or political issues potentially impacting the Project. Significantly however, while the PAD referred to traffic risks that were critical to the success of the Concession, no further analysis seems to have been carried out. The Concessionaire was allocated risks for freight traffic on the Sena Line and risks of fluctuating regional traffic. The Concessionaire had no control over these risks and was therefore not suited to manage them. Best practice is to allocate the risks to the party best able to mitigate or control them.¹⁰

d) Mid-term review

44. At the mid-term review in June 2008¹¹, the Project had cost overruns of US\$50 million. The construction works had significantly slowed down and delays of up to eight months were expected. Despite this the Bank team considered the 35 percent increase to be “understandable”.¹² Rather than addressing the incompetence of the Concessionaire as a major bottleneck, the mid-term review report pointed to the failure in negotiations over the coal tariff - which was a fairly recent development - and the threat of termination by the Government as the main risk to Project progress. This was a missed opportunity to consider Project changes and re-direction.

2.3 Monitoring and Evaluation (M&E) Design, Implementation, and Utilization

M&E Design

45. The indicators agreed upon during preparation of the Project were aligned with the PDOs and development agenda of Mozambique. The expectation was that CFM would provide a point of contact for monitoring the outcomes but that some of the data would come from the Concessionaire. These indicators provided a concise view of Project implementation and achievement of PDOs for a railway Project. The Project did not have any specific indicators linked to the environment or occupational health and safety. This would have been useful considering the construction, environmental and labor relations issues encountered during Project implementation.

¹⁰ Smith N J Managing Risk in Construction Projects. Blackwell Publishing 2006

¹¹ Mid-Term review mission Aide-Memoire (June 2-8, 2008)

¹² Management letter from World Bank to GoM – Mid-Term review, dated July 9, 2008

M&E Implementation

46. A baseline was established for the indicators and CFM supplied the relevant data. In addition the Independent Engineer and PIU reported regularly on the construction process. Perhaps the main weakness of the implementation was the misalignment between the regular Bank supervision missions and the reality of Project progress. The missions did not accurately reflect the warning signs that the Project objectives were not going to be fulfilled until towards the end of the Project.

47. The annual financial audit was submitted regularly.

48. There was a visible and documented lack of concern for issues related to Health and Safety by the consortium. CFM and the Independent Engineer did intervene several times, to the extreme of expelling some managers, stopping work and closing workers' camps. These elements, documented in the reports, could have been the base for more stringent actions by the Bank to enforce best-practice standards or even force cancellation of contracts with contravening contractors, but this was never done.

M&E Utilization

49. The data required to produce the indicators was readily available. At the start of the Project a suitable baseline was established and the indicators were tracked throughout the Project. However, these did not seem to inform decisions on the Project until towards the end. Indeed, CFM confirms that the M&E reports were used for Board evaluations and decisions, but these decisions were not implemented for several reasons including lack of interest by the Concessionaire.

2.4 Safeguard and Fiduciary Compliance

50. The Project triggered a category B rating, as safeguards were identified in three areas: Environmental, Natural Habitats and Involuntary Resettlement.

51. For the most part, overall safeguards compliance and compliance with environmental safeguards was rated as satisfactory and it was only in March 2011, that environmental and health and safety violations were reported.¹³

- During the final ISR mission in December 2011 many of the issues involving construction waste and issues with borrow pit restoration were still outstanding.
- Additionally, occupational health and safety compliance had not been addressed. Health and Safety at work standards at all sites were extremely low and the work conditions were often hazardous.

¹³ ISR #13

52. Compliance with requirements for involuntary resettlements and social safeguards implemented by CFM was reported as satisfactory or highly satisfactory throughout the Project.

53. In 1983, the Sena Line was closed due to the conflict and the railway line was booby trapped with landmines. The Project could not therefore start without the whole line being de-mined and certificates being issued. This was considered critical since it could potentially hinder the Concessionaire from obtaining insurance policies. A de-mining program under the control of the public sector shareholder was drawn up to provide de-mining within 15m on each side of the 671 km line. De-mining work on the entire Sena Line was completed in October 2006. De-mining teams were deployed to work with contractors as and when required in view of residual mines discovered. Sadly, one worker was killed by these residual mines. Five more were killed in rail accidents.

2.5 Post-completion Operation/Next Phase

54. In view of the take-over of the rail system by the Government after termination of the Concession at the end of 2011, the GoM was advised to clarify the strategic vision for the rail system. During the final ISR mission in December 2011, meetings were held with the Prime Minister, the Minister for Planning and the Minister for Transport. All meetings underscored the importance of the Beira Railway Project and the need to take a long term view of its potential impact on the country's development.

55. The GoM proposed a roadmap to take into account the legal, technical and commercial implications of the Concession termination, and support the vision for the future development of Beira railways system. This roadmap envisioned:

- Sena Line carrying up to 12 million tons per annum, (mtpa) of coal business by 2015, with private companies operating simultaneously with CFM freight trains,
- Machipanda line carrying up to 3 mtpa of general cargo, with significant input from Zimbabwe and Zambia business, and
- Regular passenger services operated by CFM on both lines.

56. The road map covers three major areas: institutional capacity building, business planning and financial modeling and linkage to opportunities in neighboring countries.

57. From the Bank's perspective, future involvement should be aligned with this road map, as it draws the lessons from the outcome of this particular Concession, as well as the issues which have marred the Project throughout its implementation.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

58. The PDOs are deemed relevant to the current development context of Mozambique. Promoting sustainable and inclusive growth remains a cornerstone of Government policies. In this regard the GoM is still keen to improve the investment climate and expand service delivery

to a greater proportion of the population. These core aspirations take on wider significance in the context of major discoveries of minerals and the increasing drive towards regional integration.

59. The regional dimension remains relevant to the sector in view of Mozambique's strategic geographical location as an entry and exit point for landlocked Zambia, Zimbabwe and Malawi.

60. In light of discussions with the Ministers for Transport and Planning, and the Prime Minister in the final ISR mission, the GoM is eager for the Bank to continue to assist Mozambique. The main development challenges that Mozambique faces and the opportunities that exploiting the mineral resources could potentially unleash are intrinsically linked to the development of the transport infrastructure and sector institutions.

3.2 Achievement of Project Development Objectives

61. The goal of the Project was to improve the rail system to support economic growth through regional integration and connectivity of areas along the Zambezi Valley to the port of Beira. This goal has not been achieved.

62. The Sena line, while operational, was delivered two years late and requires significant further work to be able to carry the current traffic safely and sustainably. Moreover, as of December 2011, less than a third of anticipated traffic was carried on this line. While there is potential for increased local and international traffic, the condition of the Machipanda line is worse now than before the Project. Moreover, despite economic improvements in Zimbabwe most of international traffic still uses the railway and port of Durban in South Africa rather than the shorter and more direct route through Mozambique. The institutional strengthening component of the Project was not well articulated. Hence the delivery had no significant impact on the institutional capability of the Client. Increased institutional capacity and capability should have enabled the GoM to manage the public-private relationships better and increase the value of private sector participation in providing a service. The limited scope of this component has not enhanced the ability of the GoM to act as an intelligent public sector Client.

3.3 Efficiency

a) Efficiency measured from outcomes

63. The Project was inefficient in its overall use of Project funds. The PDOs were not achieved and significant additional investment is now required to improve the quality of the railway system. In the case of the Sena line, in order to deliver the expected standard of infrastructure, and in the case of the Machipanda line, in order to rehabilitate it to a condition where it can carry national and regional traffic. Although some limited train operations started on the Sena line in 2011 to service populations and businesses along the Zambezi Valley, the railway Project has not significantly improved the lives of the local population and the regional traffic is not using the railway system as anticipated.

64. The significant delays in execution of the construction phase and the strained relations between the conceding authority and Concessionnaire have also led to forgone economic and

financial opportunities. The analysis at the start of the Project seemed to show that individually and as a combination both the Sena and Machipanda Lines had positive Net Present Values and the Economic Rate of Return forecast was 18 percent for each line. The assumptions underlying the economic analysis were excessively optimistic. The costs attributed to the new line showed a lack of technical engineering understanding of the details of design, construction, maintenance and operation of rail infrastructure. Moreover, the potential revenues and economic benefits that could accrue from constructing the rail line were exaggerated. See Annex 3 for further details.

b) Efficiency measured at performance

65. The Project experienced delays of over two years and cost overruns of more than US\$50 million. Moreover, the Concession was prematurely terminated in September 2011.

3.4 Justification of Overall Outcome Rating: *Unsatisfactory*

66. The Project did not achieve its objectives (PDOs) or any of the performance indicator targets. This was mainly because of the structure of the Concession Agreement and also because supervision was ineffectual. The rehabilitation of the Sena line was expected to be completed within four years but was delayed by over two years. Several technical issues remain after completion, posing latent risks to the safety of the operations on the Sena line and reducing its ability to handle the expected level of freight and passenger volumes (see Annex 2 for details). On the Machipanda Line, insufficient maintenance of both the line and rolling stock and numerous derailments since handover to the Concessionaire left it to deteriorate further, rather than being rehabilitated as was initially envisaged.

67. The Project concept and its preparation were appropriately responsive to the development aims of Mozambique as set out in the *Action Plan for the Reduction of Absolute Poverty and Country Assistance Strategy*. But the Project design did not take account of available strategic information related to coal production forecasts and consequently minimized its possible impact. This was a key factor in the Project's outcome. Thus, in the end, what was initially proposed as a pivotal Project to catalyze private sector investment has not benefitted the GoM as envisioned. The Zambezi valley and regional traffic still cannot use the line and the private sector coal miners will have to seek alternative means to transport the volume of coal produced or invest significant amounts to rehabilitate the line. Moreover, the GoM now needs to address the consequences of the premature termination of the Concession, whether through arbitration, a direct agreement on payments to the former Concessionaire. In either case this will be a costly and unpleasant process, and there is a possibility of litigation.

3.5 Overarching Themes, Other Outcomes and Impacts

68. **Poverty Impacts, Gender Aspects, and Social Development** – as part of the transition from public to private, 13,600 staff (all CFM) were retrenched. This was a precondition for the Concession. Retrenched staff was retrained and around 6,000 found employment in new vocations. Thirty-seven households, five businesses and five religious facilities were relocated to make way for a 50m right of way on each side of the line. All individuals and businesses were compensated. The Concessionaire was charged with responsibility to promote Human

Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) awareness during the construction phase. This was undertaken satisfactorily.

69. **Institutional Change/Strengthening** – the appointment of an Independent Engineer was useful in highlighting various technical issues that would have otherwise been missed. Because of accumulated frustrations on all parts, the reports of the engineer were considered by the Concessionaire to be overly critical, and did not have significant impacts on the Concessionaire's performance. Towards the end of the Project, accusations of partiality and non-performance characterized the relationship between the various entities. The lesson for future projects is to make this role more effective, possibly by linking its conclusions to a performance-related rewards system within the Concession.

70. A positive outcome of the experience is that the Government and the Bank are now more aware of the need to conceive other concessions from a more commercial perspective. This experience has also influenced the roadmap and vision for the rail sector. A key aspect is the need to separate the role of policy maker, client and Regulator from the ownership, management and operation of rail infrastructure. How well this distinction is articulated will affect similar projects in the future.

71. **Other Unintended Outcomes and Impacts (positive or negative)** – the rail Concession had a number of unintended consequences:

- The collapse of the rail Concession has sharpened focus of the Government on the critical role of efficient transport systems in fulfilling national objectives. The discovery of sizeable deposits of coal and other minerals has confirmed the need for Government policy to enable integration of good rail and port infrastructure.
- The Project has also highlighted the need for a regulatory framework (rail infrastructure access, tariffs, and customs) to facilitate and promote long term sustainability of the rail system.
- The Project has led the Government to realize the need for upstream planning and decision making with regards to infrastructure management and innovative logistics solutions.
- The Project has also highlighted a weakness in the planning and policy development process that was known from the start of the Project but not explored in detail. As a result of the Project the Government is currently undertaking a spatial analysis, with the help of the Bank through a Spatial Development Technical Assistance Project (P121398, FY11, US\$20 million IDA), to better understand development of the infrastructure network within a wider economy and the relevant regional implications.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

72. This is a core ICR which does not require a beneficiary survey/stakeholder workshop.

4. Assessment of Risk to Development Outcome. Rating: *Significant*

73. Termination of the Concession, coupled with the fact that the public-private partnership in such a high profile Project did not result in the anticipated objectives, could negatively affect the credibility of the Concession approach to delivery of projects. Upon receiving the notice of termination, the Concessionaire wrote a letter to the World Bank President in November 2011.

This hardened the positions of the parties to the agreement. Unless the parties can come to an amicable settlement, the premature termination of the Concession seems to be heading for arbitration and possibly lengthy and costly litigation.

74. Besides the cost implications, this decision to terminate could have other consequences. It might trigger a negative perception of public-private partnerships in Mozambique that could reverberate to other sectors or even other countries in the region. The poor performance of the Concession was widely publicized and largely condemned within the local and national Mozambique media. Within the continent and internationally, this Concession was closely monitored by businesses and politicians. The outcome of the Concession somewhat mirrored the demise of a similar rail concession with the same consortium in Tanzania. The failure of this Concession is not a good precursor for private sector involvement in the rail sector of sub-Saharan Africa.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance. Rating: *Unsatisfactory*

a) Ensuring Quality at Entry. Rating: *Unsatisfactory*

75. The rating at entry is based on the fact that the PDOs were consistent with the overall country level aspirations and the performance indicators were reasonable for the railway Project's context. The identification of the need for the Project was therefore in harmony with the development challenges.

76. However, the correct identification of needs and PDOs did not translate into sound Project design. The greatest weakness of the Project and one of the major reasons for its failure to achieve its development objectives was the preparation and appraisal of the Concession. Most of the difficulties experienced during the implementation can be traced to decisions taken at the preparation and appraisal stage. The risk allocation at entry, Project design and its relationship with the coal concession, the lack of strong performance incentives in the rail Concession, the design of the special purpose vehicle and its shareholding, can all be traced to flawed strategic decisions at entry.

b) Quality of Supervision. Rating: *Unsatisfactory*

77. The poor quality of supervision exacerbated the problems with the Project at entry. Despite regular supervision missions, the Bank team did not heed the early warning signals that the Project was in difficulty until towards the end of the Project. At this point most of the IDA funding had been disbursed. There was therefore limited leverage to influence the Project. At the very least, the mid-term review should have highlighted the strained relationship between the parties to the Concession. Moreover, the persistently negative reports from the Independent Engineer should have triggered a review and identification of issues and drawn attention of Bank management.

78. It doesn't seem that the Bank management realized the need to resource the supervision team with strong rail expertise given the investment. There was not a true technical engineering anchor for the Project, which mostly relied on short term consultants, or the Independent

Engineer's reports, for the assessment of technical and rail-specific aspects. Without this expertise the Bank supervision team was unable to make sense of the technical issues or adequately monitor the contracts and identify problems.

79. Important questions arise from this shortcoming: If the Project was in difficulty for most of the construction phase, why did the Bank team continue to rate it as *satisfactory* when it was clear that the PDOs were not going to be achieved? If the Bank team was not competent to recognize that the Project was in difficulty, why didn't the country unit or sector management act on the virulent correspondence from the Client and Concessionaire? Why didn't they force the issue by instructing the team to initiate a restructuring, failing which other possibilities might be examined, even going as far as cancellation or suspension of the loan?

80. There seemed to be a failure in the Bank's system for monitoring the progress and taking appropriate remedial action. The various institutional measures to safeguard Project objectives and provide alarms to senior management (ISRs, Aide-Mémoires, Back to Office Reports) did not seem to elicit the required scrutiny until late 2010.

c) Justification of Rating for Overall Bank Performance. Rating: *Unsatisfactory*

81. There were major shortcomings in the design, preparation and supervision of the Project. The Bank team exercised good judgment in capturing the need for the Project and its impact on the development agenda of the Mozambique. But too many critical problems – which gravitate around the decisions made during the very early stages of Project preparation – affected the Project and to a large extent were exacerbated during the Project implementation by the lack of adequate supervision.

5.2 Borrower Performance. Rating: *Moderately Unsatisfactory*

a) Government Performance. Rating: *Moderately Unsatisfactory*

82. The GoM should have taken on a more positive, assertive and active role in the Project. This would have been especially critical in dealing with the mining and rail Concessions. The Project documentation gives the impression that the GoM was not consistent in its actions and correspondence, at times threatening to invoke contractual provisions, while at others seeming to use its influence outside of the contract to get resolution. As a result of this non-assertive stance the issue of termination dragged on for over two years.

b) Implementing Agency or Agencies Performance. Rating: *Moderately Unsatisfactory*

83. It is difficult to separate the role played by the GoM from CFM's role. As 49 percent minority shareholder in a special purpose vehicle, CFM as the Implementing Agency had little leverage in influencing the outcomes of major decisions in the Project. However, it is also evident from correspondence and interaction with the Concessionaire that the CFM could have played a more positive role in the circumstances. Some of the actions seem to suggest CFM was bent on undermining the Concession with hope of taking over rail infrastructure management and operations.

c) **Justification of Rating for Overall Borrower Performance. Rating: *Moderately Unsatisfactory***

84. There were significant shortcomings in the Borrower performance. It may be argued that the Government and Implementing Agency were in a difficult position by design. However, it is also true that they could have played a more positive role despite the often conflicting interests to act as regulator, policy maker, client and operator.

85. Despite the Project's rating for Bank and Borrower performance, it must be acknowledged that it is now possible to take a critical view of the Project with the benefit of hindsight and availability of details on how the Project turned out. However, at the time of Project preparation (hardly 10 years after the end of conflicts), the context and conditions were different. This may explain the Client's view and contention, expressed in written comments to this ICR (see Annex 5), that the Bank should be applauded for providing support to rail development before the prospects for coal mining in the Tete Valley were fully made clear, which allowed the GoM to break out of the "chicken and egg" debate between coal mining and the development of a transport solution for coal exports from Tete. Once the IDA-financed rail investment began, the mining investment followed. In a related study of selected railway concessions in sub-Saharan Africa¹⁴, evidence shows private investment in the transport sector was weak with the sector attracting only nine percent of total private funding for infrastructure in sub-Saharan Africa from 1990 to 2002. Even when the private sector does invest, because of the investment climate and business parameters there is a strong disincentive to assume risk.

6. Lessons Learned

86. **Design:** the design of the Beira Concession was unusual in a number of respects that exacerbated some of the generic challenges of rail concessions.

- **Consider carefully the level of Government shareholdings in concessions.** Though consideration was rightly given to the political and economic environment at the time of the Concession, the GoM's 49 percent stake in the Concession created conflicting interests between the Government's roles of policy maker, regulator, and client on the one hand, and shareholder on the other. Besides, the fact that the Government shareholding was a minority one made them powerless to influence key management decisions.
- **Consider effective regulatory body.** This will help in limiting direct Government involvement in operations and focus the role of Government on regulatory control and policy making. In the case of Beira, no clear Government regulatory function was set up - or maybe not deemed necessary, as the Government had secured its own 49 percent stake. As a result, during disputes such as the ones regarding the coal tariff and health and safety, there was no regulator and no regulations to enable settlement of issues

¹⁴ Economic and Sector Work led by Pierre Pozzo di Borgo, June 2006

- **Ensure clear separation between rail operations and infrastructure management.** In Beira, these two components were identified, but not sufficiently differentiated, and the Concession eventually failed to deliver on both. International experience suggests that although the evidence is mixed, there are significant advantages in separating train operations from infrastructure asset management.¹⁵ In any case, it is at least important to have a conceptual separation to identify the revenues, costs, performance indicators and train regulation. The Beira Railway Project therefore confirms that from the design stage, it is prudent to clearly differentiate the rail components on: (a) train operations and (b) track rehabilitation and management. Ideally, these elements should be awarded separately.
- **Intermodality and integration.** The Beira Railway Project might have had a different outcome if the links between the rail and port modes were clearly seen as part of an efficient logistics link targeting the major users. In the case of Beira, more effort would have been made to establish the volumes of coal (which have turned out to be the main off-taker for the Sena line) and the link between Beira and Dondo would have been rehabilitated to complete the link to the port and the Machipanda line.

Implementation

- **Ensure strong technical skills on the World Bank supervision team.** A major weakness of the Beira Railway Project was that the Bank supervision team did not have technical engineering skills to make sense of the issues – and only hired short term consultants. This is critical for all major infrastructure projects but more so for concessions since important decisions require a detailed understanding of how infrastructure is designed, constructed, operated and maintained. Without this expertise the Bank supervision team was unable to adequately monitor the contract and identify problems early enough.
- **Due diligence and additional studies.** The Bank and the Government should have undertaken their own due diligence, should have conducted a proper feasibility study (assessing economic and financial rate of returns) including an options study with various private sector involvement possibilities, and done a more robust market study. Also an economic regulatory assessment would have helped to control the development of the Project better.
- **Project monitoring.** The Project indicators used for monitoring of the Project were focused on the engineering aspects of the Project. In the future we would recommend including indicators related to the delivery of regulatory framework (procedures, train schedules preparation, train regulation organization and control room, etc...)

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

¹⁵ Drew, J and Nash, C.A (2011) Vertical separation of railway infrastructure – does it always make sense? Working paper 594 Institute for Transport Studies, University of Leeds, UK

87. The official comments of the Government, in Annex 5, show that the Government mostly agrees with the findings, conclusions, and recommendations of the Beira Railway Project ICR. The major issues that the Implementing Agency raised were the following:

- (i) *Risk to development outcome*: It is observed by the Government that because the rail line is now rehabilitated, other coal miners are investing in the mining sector and in this regard the eventual risk to development outcome may be moderate. The ICR noted the potential for increased private sector investment by the coal mining sector on the Sena line. However, it is well documented that the Sena line will require significant investment to remedy work that should have been undertaken as part of the Project, and to enable the rail line to safely and reliably handle the foreseen traffic. The Machipanda line is in a worse condition than before the Concession. The Government of Mozambique has to make appropriate investment provisions for the rehabilitation required to achieve a standard commensurate with the traffic and safety levels envisaged. Moreover, the cost of the premature termination and its implications has to be taken into consideration.
- (ii) *Why the Concession failed and lessons learned*: the Government is in agreement with most of the conclusions of the ICR, but emphasize that the role of the Concessionaire and decisions taken in the early part of the Project contributed most to its failure. A case in point was the inclusion in the Concession Agreement of clause 5.2.2, stipulating that failure to agree on a tariff with the coal miners might lead, at the discretion of the Conceding Authority, to termination of the Concession. According to the Implementing Agency and Borrower, this was done at the insistence of IFC. These issues are discussed extensively in Section 2 and 6 of the ICR.

(b) IFC

88. In 2002, IFC was asked to act as strategic advisor to the GoM on Rail-Port-Coal developments. In 2004, IFC became the Government's advisor in the selection of the mining sponsors, but their role ended in Dec. 2004. Later, in June 2008, IFC was approached by the Concessionaire CCFB and joined a World Bank mission to New Delhi to explore the possibility of financing part of the anticipated line upgrade. IFC declined then on the ground that there was "no take-or-pay contract for coal and uncertainty arising out of the clause 5.2.2. [of the Concession Agreement]."¹⁶ IFC confirms they haven't had any involvement in the Project since.

(c) European Investment Bank (EIB)

89. EIB was not involved in any way in the design and implementation of the Project. However, in view of the financing shortfall, EIB offered their financial support to CCFB in 2010 with a commercial loan of US\$23.7 million, of which nearly US\$20 million remained un-spent by September 2011, when the Government terminated the Concession. The EIB's main concern then was to re-activate this loan, with CFM as the new Implementing Agency. In December 2011, EIB asked the Bank for advice on potential opportunities to disburse the remainder of their loan

¹⁶ Mid-Term review Mission, New-Delhi, June 18-20, 2008.

(Euro 15m), and the two Banks undertook a joint mission to Maputo and Beira. This was later the object of an official letter from the Mozambique Ministry of Finance, dated May 16, 2012. It is envisaged that the undisbursed balance of the EIB loan will be applied to the works now being undertaken by CFM and its contractors to rectify flaws and complete works left unfinished by the former Concessionaire, allowing the Sena line to carry safely and efficiently the traffic that had initially been envisaged under the Project.

Annex 1. Project Costs and Financing

a) Project Costs by Component

Component	Appraisal Estimate (US\$ Million)	Actual/Latest Estimate (US\$ Million)	Percentage of Appraisal
Rehabilitation and operation of Sena Line	123.100	107.413	87%
Improvement and operation of Machipanda Line	25.000	0	
Institutional Strengthening	5.500	3.530	64%
Physical contingencies	4.400	0	
Price contingencies	0.000	0	
Sub-total		110.943	
Undisbursed		4.968	
Total project costs	158.000	115.911	73%

b) Financing

Source of Funds	Appraisal Estimate (US\$ Million)	Actual/Latest Estimate (US\$ Million)	Percentage of Appraisal
International Development Association (IDA)	110	115.911	105%
Borrower	0	0	
Foreign Private Commercial Sources (Identified)	25.0	0	
Total Financing	135.0	115.911	14%

Notes

1 The Bank did not overspend on its drawing rights. Funding for the Machipanda line was supposed to come from the Concession. Less was spent on institutional strengthening than expected.

2 The Concessionaire swapped the shareholder equity with debt raised through loans from the European Investment Bank
Debt and Equity (*source WB*)

	Appraisal Estimate (US\$ million)	Actual/Latest Estimate (US\$ million)
IDA loan	104.50	103.80
Shareholders Equity	19.74	-
Shareholders Loans	-	40.70
Inter Company Commercial debt	25.45	9.30
Cash flow/ops	2.78	-
EIB Commercial Loan	-	23.70
Total	152.47	177.50

3 The financial structure and original shares in the Concession did not change during the Project. However, the structure of liabilities evolved significantly, as the Concession had to bring in extra funding to finance the extra cost expenditure and operational development. Indeed, the Concession could not self-finance its operations and its development as originally planned.

Annex 2. Outputs by Component

1. The principal objective of the Project was to improve the rail system to support economic growth through regional integration and connectivity of areas along the Zambezi River to the port of Beira. The Project had three components whose aim was to contribute towards this wider goal. Overall, achieving this goal was closely linked to private sector involvement in the sector.

Component 1 – Rehabilitation and Operation of the Sena Line

2. This was to rehabilitate, maintain and operate the Sena Line to specified standards and within the time frame specified in the Concession Agreement. The key indicator for this component was for the Sena Line to be progressively opened to freight and passenger traffic with freight traffic reaching at least one million metric tons by the end of the Project. By the end of the Project, 266,000 metric tons were transported. Moreover the project was completed two years later than stipulated. This indicator was not achieved.

3. After a delay of over two years, rehabilitation works for the Sena Line were completed and the line is operational, although with notable quality issues, and except for a 44-km section between Dona Ana and Vila Nova da Fronteira on the border with Malawi. The temporary tariff agreement made it possible to open the line in August 2011 for the coal traffic originating at Moatize. Following termination of the Concession, *Portos e Caminhos de Ferro de Moçambique, E.P.* (Mozambique Ports and Railways Enterprise) (CFM) has continued to operate the line. Several technical and quality issues remain in some segments, such as ballast contamination, lack of drainage, cracked sleepers and poor track alignment. Rolling stock, including passenger carriages, has not been rehabilitated. Moreover, important parts of the Project components, such as rehabilitation of stations, signaling and rolling stock, have not been executed or purchased. All of these issues, which were raised by the Independent Engineer, pose latent risks to the safety of the operation on the Sena line and to its ability to handle the freight and passenger traffic stipulated in the Project Development Objectives (PDOs).

4. In view of the historical figures available at the time of project concept, the target for this indicator was quite reasonable. Available figures show that at the time of independence in 1975, the Sena Line carried close to 500,000 metric tons per year, and by the time it was shut down in 1983 up to 2.0 million metric tons. By the end of the Project in December 2011, 260,000 metric tons of coal had been recorded. Significant investment is needed to improve the condition of the physical infrastructure to accommodate the level of traffic anticipated. At the close of the Project, the coal mining Concessionaire was anticipating a requirement to carry up to 20 million metric tons per year. If this level of traffic becomes a reality, the investment needed will be significant. Moreover, there is no room for freight traffic from other sectors such as agriculture, timber, and granite which were originally anticipated to use the Sena line. The current rail system does not provide sufficient capacity to accommodate other traffic that could potentially be redirected from the roads. A limited provision has been made for passenger traffic, but overall this does not meet the aspirations in the Project concept. Of course it may be argued that since the line was closed in 1983, the fact that it is now open is a welcome development. This is true. However, against the original PDO, an investment of over US\$100 million and the performance indicator, the delivery

of this component was unsatisfactory. This has had an impact on wider aspirations for private sector participation in the minerals sector, agriculture and services that are core to the current development agenda for Mozambique.

Component 2 – Operation and Rehabilitation of the Machipanda line

5. The aim of this component was to take over an operating line, undertake rehabilitative works to improve the condition of the infrastructure and to bring in private sector best practice in rail operations to enable the line to attract international and regional traffic. The key indicator was for international traffic from Zimbabwe to increase by 30 percent. Against this aspiration, this component did not achieve its target.

6. Between 1999 and 2002 average freight traffic on Machipanda line was 680,000 metric tons. A target of 650,000 metric tons by the end of the Project was therefore conservative but understandable given the declining situation in neighboring Zimbabwe. By the end of the Project, the traffic had declined to 387,700 metric tons. This was a high point. During much of the Project period the traffic actually declined by more than 50 percent of the baseline.

7. The line has not been rehabilitated as was envisaged. Insufficient maintenance and numerous derailments on this line since handover to the Concessionaire have left it to deteriorate further. With the economic recovery in Zimbabwe, the traffic is increasing on this corridor, putting even more pressure on the only available rail link. The difficulties surrounding the Concession Agreement, as well as the financial strategy of the Concessionaire, have meant that investments and maintenance of the line have been far lower than anticipated, and the Machipanda line has missed an opportunity to benefit from the international traffic growth and contribute towards fulfilling a key objective of the Project. The poor condition of the infrastructure has not led to much diverted, induced, or generated traffic. In fact, despite economic improvements in Zimbabwe most of international traffic still uses the railway and port to Durban in South Africa rather than the shorter and more direct route through Mozambique. This is a missed opportunity for the rail line and for the economic growth prospects of Mozambique.

8. In the future, major investments will be required if the Machipanda line is to make a meaningful contribution towards the economy of Mozambique.

Component 3 – Institutional Strengthening

9. This component comprised technical assistance, training and consultant services to CFM so as to enhance its capacity to oversee implementation of the Project, supervise construction works and prepare for the long term development of rail and ports. The performance indicator for this component was vaguely defined and immeasurable.

10. As articulated elsewhere in the main body of the report, this component was not carefully thought through. It essentially boiled down to hiring consultants and the Independent Engineer to carry out specific assignments. No thought seems to have been given to developing the

individual and institutional capability of CFM to act as an intelligent public sector client able to productively engage with the private sector to obtain value for money.

11. Due to the above, this component did not have any real impact on the Project. The design of the Project did not clarify the role of CFM. Acting as operator, client, regulator and policy maker simultaneously did not provide a framework to clarify the skills and capability needed or indeed an institutional development trajectory. It may be argued that the intention was to provide experienced individuals to take on key roles, thus giving CFM employees the opportunity to be trained on the job and gain needed experience. In this respect some skills may have been gained. However, this is clearly not a sustainable approach to institutional strengthening. Since Project close, the operation of both rail lines has reverted to CFM and has essentially returned to a pre-Project situation.

Annex 3. Economic and Financial Analysis

Economic and Financial Analysis at Appraisal

a) Economic Analysis

1. Separate economic analyses were conducted for rehabilitation of the Sena and Machipanda lines. According to the analyses, the Net Present Value (NPV) for Sena was US\$194.4 million and Economic Rate of Return (ERR) was 18 percent. For the Machipanda line the NPV was US\$93.8 million and ERR was 18 percent. The main benefit anticipated for the Machipanda line was that it would enable local traffic to gradually shift to rail, resulting in lower costs of transport for domestic shippers and receivers. Moreover, international transit traffic was anticipated to shift from road and ports outside Mozambique. The main economic benefit of the Sena line was that it would open up regions insufficiently connected with the centers of economic activity in Mozambique. Potentially impacting a population of 4.75 million, the Sena Line was expected to improve the lives of one in four members of the country's population. Traffic on both lines was expected to grow significantly. In case of Sena line both coal and non-coal traffic was expected to grow quickly; up to one million and 1.4 million metric tons by the end of the Project for coal and non-coal traffic respectively. The Machipanda line was forecast to handle 2.2 million tons by 2023, whereas passenger traffic was forecast to grow from zero to one million by the end of the Project.

2. The cost-benefit analysis accounted for: (a) the direct effects of the Project (financial costs and benefits attributable), (b) indirect effects (such as creation of employment, shifts in commercial activities, and birth of new activities consequent to the railway Projects), (c) external effects (welfare changes in society attributable to the Project such as environmental and social effects). The largest sources of economic benefits were from avoided transport costs from road and barge transport (US\$75.1 million); followed by generated economic activities relating to production of cotton, timber, other agricultural goods and coal (US\$72 million); and finally multiplier benefits as a result of the impact of the Project on people's livelihoods.

b) Financial Analysis

3. Financial analysis suggested that the Concession company was expected to make overall net profits over the life of the company; even with "conservative" assumptions for traffic growth, fixed costs, freight rates, and revenues. With a four percent growth in traffic the rail system was expected to carry up to 3.5 million metric tons of freight.

4. The main risks captured by the financial model were associated with the heavy capital infrastructure investment requirements and the financial performance of *Portos e Caminhos de Ferro de Moçambique, E.P.* (Mozambique Ports and Railways Enterprise) (CFM) which was expected to be part of the Concession. To manage these risks, the International Development Association (IDA) funding was allocated to cover the costs of rehabilitation and the Government of Mozambique (GoM) carried the risk of restructuring in CFM and retrenchment of excess staff. Moreover the risk of other companies in which CFM had an equity stake was also carried by the GoM. In theory, these measures therefore de-risked the Concession and provided a clean slate for a financially viable Concession.

Critical review of Economic and Financial analysis at end of Project

5. The financial and economic analysis of the Project at appraisal is strikingly different from the reality of the Project. The Project was characterized by severe delays and cost overruns. However, examination of the initial financial model reveals fundamental flaws in the initial assumptions, extreme optimism bias and unreasonable assumptions about infrastructure concessions.

a) Flaws in initial assumptions and Optimism bias

6. The significant delays in execution of the construction phase and the strained relations between the conceding authority and Concession led to forgone economic and financial opportunities. The analysis at the start of the Project showed that individually and as a combination both the Sena and Machipanda Lines had positive NPVs and the Economic Rate of Return was 18 percent for each line. The economic and financial analysis was based on overly optimistic assumptions about the benefits that could accrue from building or rehabilitating the rail lines. The volume of traffic that was expected to divert from the road transport and the value of these benefits was overstated. The economic activities that would be catalyzed by the new rail line were also exaggerated. Moreover the revenues were not based on a clear understanding of the volumes of coal traffic which were potentially the main source of revenue. Assumptions about the agricultural and timber traffic were also unrealistic given that these were not sufficiently developed and expecting the rail line to increase these exponentially was a stretch. As a result the cost-benefit analysis promised returns that were unrealistic. This phenomenon has often been referred to as optimism bias.¹⁷ This is a systematic tendency for people to be overly optimistic about the outcome of planned actions. In this case the actual costs of the Project were downplayed and the benefits were exaggerated. Taking these realities into consideration would have significantly re-shaped the economic analysis and perhaps re-focused the Project.

7. The above flaws in assumptions were not helped by the failure of the Project design and execution.

b) Assumptions about infrastructure concessions

8. It is also clear that the financial and economic analysis was carried out without a clear understanding of the fundamental principles that underpin infrastructure concessions.

9. **Limited or non-recourse financing of infrastructure** – infrastructure concessions work best when there are clear revenue streams for which the infrastructure is built. As a result, it is obvious that ensuring rail operations have adequate linkages to upstream and downstream operations is critical. Railways do not function in isolation but, to be effective, need to be closely coordinated with upstream freight-generating operations (such as mines) as well as ports for onward transportation. In the case of Beira, the railway Concession ended some 25 kilometers short of the port and there was little clarity on responsibility for rehabilitating the final leg

¹⁷ Flyvberg (2003) *Megaprojects and Risk – An Anatomy of Ambition*. Cambridge University Press

(Dondo – Beira). There should have been a clear link between the main sources of revenue, in this case mining traffic, to the port infrastructure to make the rail line financially viable. These difficulties can be addressed either by full vertical integration (from mine to port) up front, or otherwise by highly sophisticated logistic arrangements to ensure efficient inter-modal transfer of freight.

10. Allocate risks to the party best able to manage them – Concession contracts should be underpinned by clear separation of roles between the Principal (in this case public sector Client) and Promoter (Concessionaire). This provides the right framework for risk sharing and incentivization. The public sector concentrates on the policy drivers (including risk allocation, value for money, additionality of finance, affordability, expertise required) and its role as Client and regulator. Meanwhile, the onus is on the private sector to innovate and make available infrastructure needed to provide the desired service. The concession is therefore self-supervising in terms of quality and dispute resolution. This clear separation would have avoided the possibility of Government shareholdings in concessions; particularly minority ones. The GoM participated with a minority (49 percent) stake in the Concession. This created conflicts of interest between the Government's roles of policy maker, regulator, and Client on the one hand, and shareholder on the other. A clear example is when the GoM had two simultaneous negotiations on-going with the coal industry, one on licenses through the Ministry of Mining and one on coal freight tariffs through the railway company CFM. Even worse, the fact that the Government shareholding was a minority one made them powerless to influence key management decisions.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

a) Task Team Members

Name	Title	Unit
Henry Des Longchamps	Sr. Transport Specialist	AFTTR
José Chembeze	Transport Specialist	AFTTR
Bernard Aritua	Transport Specialist	AFTTR
Pierre Graftieux	Lead Transport Specialist	AFTTR
C. Sanjivi Rajasingham	Sector Manager	AFTTR
Anil Bhandari	Lead Transport Specialist	AFTTR
Ajay Kumar	Lead Transport Specialist	AFTTR
Yash Pal Kedia	Lead Transport Specialist	AFTTR
Subhash Seth	Consultant	AFTTR
Fabio Galli	Lead Transport Specialist	AFTTR
Tim Hartwig	Intern	AFTTR
Ntombie Siwale	Sr. Program Assistant	AFTTR
Davies Makasa	Transport Specialist	AFTTR
Fang Xu	Sr. Economist	AFTTR
Farida Khan	Operations Analyst	AFTTR
Felly Kaboyo	Operations Analyst	AFTTR
Ann Raynal May	Information Specialist	AFTTR
Ivo Imperato	Sector Leader	AFTUW
Boris Utria	Country Operations Advisor	LCC5C
Alberto Ninio	Sr. Counsel	LEGAF
Luz Meza-Bartrina	Sr. Counsel	LEGAF
Monica Sawyer	Country Officer	AFCMZ
George Tharakan	Peer Reviewer (Consultant)	ECSIE
Lou Thompson	Peer Reviewer (Consultant)	AFCO2
Pierre Pozzo di Borgo	Peer Reviewer (Principal Investment Officer)	CN2SI
Cecilia Briceño-Garmendia	Peer Reviewer (Sr. Infrastructure Economist)	AFTSN
Martha Lawrence	Peer Reviewer (Sr. Transport Specialist)	ECCS5
Ben Eijbergen	Peer Reviewer (Lead Transport Specialist)	SASDT
Kristine Ivarsdotter	Sr. Social Development Specialist	AFTS1
Robert Robelus	Sr. Environmental Assessment Specialist	AFTEN
Noreen Beg	Sr. Environmental Specialist	AFTEN
Marius Koen	Sr. Financial Management Specialist	AFTFM
Elvis Teodora Bernado Langa	Financial Management Specialist	AFTFM

Jonathan Nyamukapa	Sr. Financial Management Specialist	AFTFM
João Tinga	Financial Management Analyst	AFTFM
Bridie Champion	Disbursement Specialist	LOAG2
Jose Janeiro	Sr. Finance Officer	CTRLA
Teresa McCue	Finance Analyst	CTRLA
Slaheddine Ben-Halima	Procurement Specialist	AFTPR
Manuel J.P. Sumbana	Procurement Analyst	SASEI
Adelia Chebeia	Program Assistant	AFTO2
Arlete Comissário	Program Assistant	AFTS2

b) Staff Time and costs

STAFF TIME AND COST		
LENDING		
FY		US\$
FY2001		
FY2002		46,948.78
FY2003		8,039.79
FY2004		203,450.93
FY2005		94,703.55
SUPERVISION/ICR		
FY2005		158,302.36
FY2006		105,489.56
FY2007		123,877.35
FY2008		171,133.87
FY2009		148,064.18
FY2010		119,412.17
FY2011		210,605.72
FY2012		185,471.07
Total		1,575,499.33

Annex 5. Summary of Borrower's ICR and/or Comments on Draft ICR

1. In its official letter, number 54/GM/MTC/12, dated June 2012, the Government makes the following comments on the draft ICR.

Development Outcome

2. It has been stated that the risk to development outcome is significant. We believe just the contrary.

3. The issue of the huge coal prospects in the Moatize region was being discussed since the 1980s. But the chicken and egg situation came in very late – which should come first – the rail link or the mine development. Each stake player was unwilling to invest unless there was positive development on the other side.

4. Special mention to the World Bank to have taken the bold decision to agree with the GoM decision for the go ahead with the rehabilitation of the Sena Line as a stand-alone Project in spite of the strong opposition from IFC, who wanted the entire Project (port, rail and mine) to be given to one (mining) company.

5. As soon as the rehabilitation on the line picked up, there was a flurry of activity with the big coal miners bringing in huge investment for the development of the coal mines. Here the credit rightly belongs to the GoM and the Bank. Let us not try to belittle the role of the Bank in the development and implementation of the Project!

6. The Project is having a catalytic impact on growth. It has acted as the catalyst to open the Zambezi valley to private sector investments, restore the livelihood of thousands of households disrupted by the prolonged war, and promote regional integration.

Why the Concession failed

- ✓ ***Involvement of Public Sector as a strategic partner:*** - Although the company, CCFB, was private company in Mozambique, the strategic partners/promoters were from the public sector. The management of the Concession company had little independence and had to refer most decisions to the headquarters of the shareholders, which have a slow decision process. However, there is one big plus point – the accounts are straight, audited in time and no dressing up of accounts, contrary to what happened in some of the concessions with private sector involvement.
- ✓ ***Working atmosphere in Africa:*** The returns are high and so are the risks. A public sector entity or a private entity must take necessary precautions to prevent or reduce the risks of investing in Africa or elsewhere, because risks exist in all parties of the World.
- ✓ ***Lack of integration in management:*** As much as possible, a shareholder should remain a shareholder only, an owner. It should not get involved in the management. It is a good policy to nurture and tap local talent. Right from the beginning, the management was in the hands of the strategic partners who made little effort to include Mozambicans in the management structure, although it was foreseen in the Project.

- ✓ ***Tariff discussions with Coal miners:*** Looking back, Clause 5.2.2 in the Concession Agreement effectively meant a sword hanging over the Concessionaire's head. The coal mining company had only to ensure that the negotiations failed and the door was open for the Concession Agreement to be terminated. It is a learning process, most probably this clause should have never been there or a different setting could have been structured to prevent both parties, the Rail Concessionaire and the Coal Mine Concessionaire, to use unfair tactics for promoting the contract termination.
- ***Incorrect coal projections:*** Even though it was well known about the substantial coal prospects on the Sena Line, the original Project was envisaged to carry only 2m tons on Sena Line including coal. Accordingly the prospective concessionaires were accordingly advised. As the line was developed, there was the stark reality that the line needed a huge upgrade.

Lessons to be learnt

- ***Public Sector:*** An urgent review is required whether the public sector as strategic partner/promoter can play an effective role in public private partnership (PPP) projects, which requires a different mindset.
- ***Local integration in management:*** This must be insisted as a specific requirement and adequate methodology shall be inserted in the Concession contracts.
- ***Professional management:*** Ideally, the management should be outsourced to bring in professional and independent expertise. Shareholders should remain as shareholders only. The management should be professional and liable to performance.
- ***Incorrect coal projections:*** Even though it was well known about the substantial coal prospects on the Sena Line, the original Project was envisaged to carry only 2m tons on Sena Line including coal. Accordingly the prospective concessionaires were accordingly advised. As the line was developed, there was the stark reality that the line needed a huge upgrade.
- ***Procurement:*** There is invariably a conflict of interest if shareholders are involved in procurement and execution of works. Nevertheless in the case of CCFB, the basic idea behind it was that the shareholders being railway contractors and operators would have the highest interest in concluding the works with best quality, on time and with cost effective in order for them to enjoy earlier and sustainable returns during the duration of the Concession. The promoters have been selected through an Open Competitive Bid process. They failed completely.
- ***Need for independent regulatory body:*** This has been identified and the Government of Mozambique (GoM) is implementing it. The process is not easy and quick, as we have seen in lot of countries, including developed countries.
- ***Multilateral Financing Agencies need to be more proactive:*** Being focused on development aspects alone, a meaningful follow up on the financials of the company is missing in multilateral financing agencies. They need to be more proactive. Like the private lenders, they should insist on a step-in right to change management if things are not going as envisaged.

Annex 6. Comments of Cofinanciers and Other Partners/Stakeholders

N/A

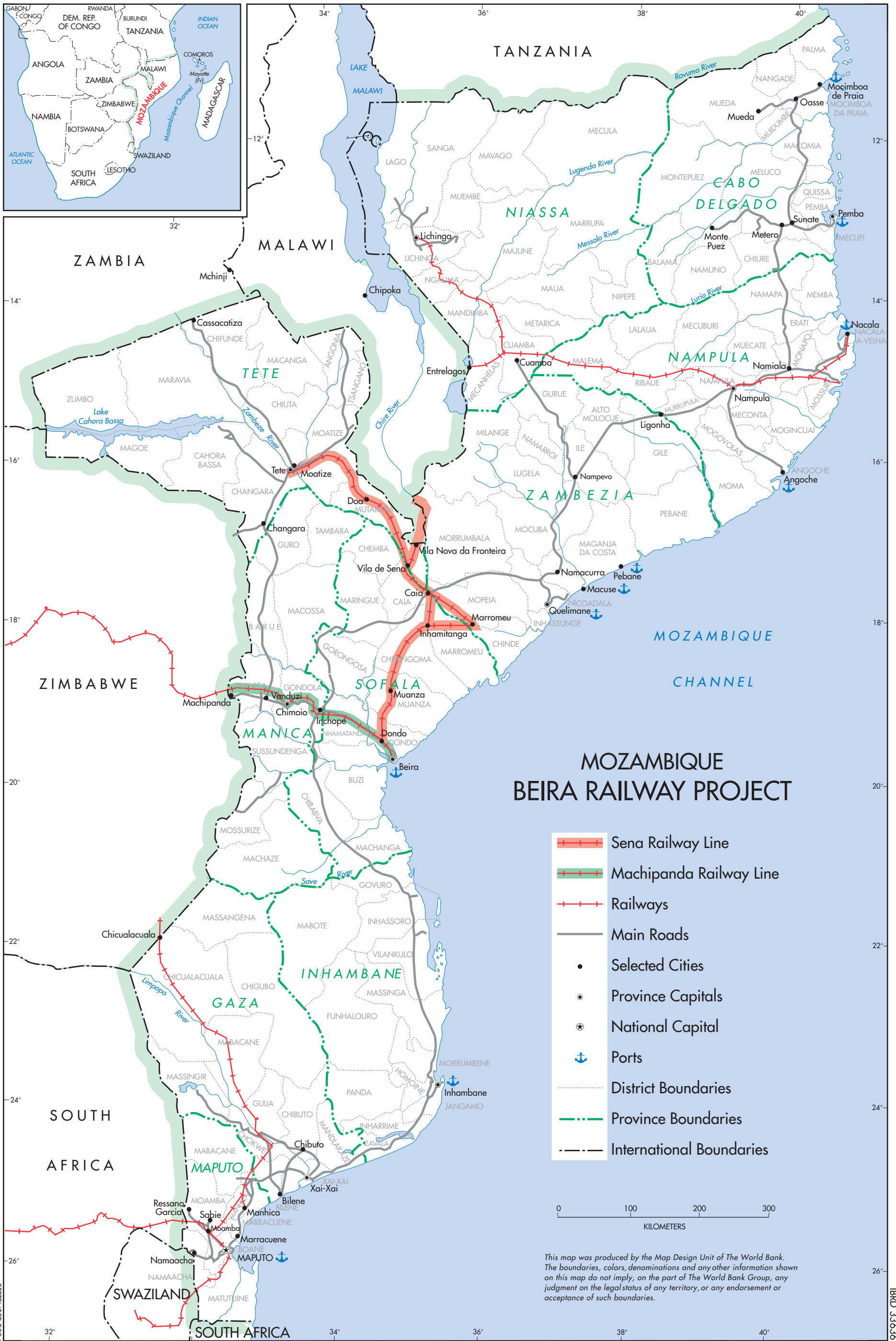
Annex 7. List of Supporting Documents

Bank Documents










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MOZAMBIQUE BEIRA RAILWAY PROJECT

-  Sena Railway Line
-  Machipanda Railway Line
-  Railways
-  Main Roads
-  Selected Cities
-  Province Capitals
-  National Capital
-  Ports
-  District Boundaries
-  Province Boundaries
-  International Boundaries

0 100 200 300
KILOMETERS

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