Document of
The World Bank

Report No: ICR00003303

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IBRD-77340)

ON A

LOAN

IN THE AMOUNT OF US$50 MILLION

TO THE

REPUBLIC OF MAURITIUS

FOR AN

INFRASTRUCTURE PROJECT

June 25, 2015

Transport and ICT Global Practice
Country Department AFCS2
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2014)

Currency Unit = Mauritian Rupee (MUR)
MUR 1.00 = US$0.03
US$1.00 = MUR 31.75

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AFD	*Agence Française de Développement* (French Development Agency)
ARAP	Abbreviated Resettlement Action Plan
BRT	Bus Rapid Transit
CEB	Central Electricity Board
CPS	Country Partnership Strategy
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FM	Financial Management
GoM	Government of Mauritius
HDM	Highway Development and Management Model
IBRD	International Bank for Reconstruction and Development
IFR	Interim Financial Report
IRR	Internal Rate of Return
ISR	Implementation Status and Results Reports
LAP	Land Acquisition Plan
LRT	Light Rail Transit
LTA	Land Transport Authority
M&E	Monitoring and Evaluation
METAP	Mauritius Economic Transition Technical Assistance Project
MIP	Mauritius Infrastructure Project
MoENDU	Ministry of Environment and National Development Unit
MoFED	Ministry of Finance and Economic Development (formerly Ministry of Finance and Economic Empowerment, MoFEE)
MoPILTS	Ministry of Public Infrastructure, Land Transport and Shipping
MoREPU	Ministry of Renewable Energy and Public Utilities
MTR	Mid-Term Review
MUR	Mauritian Rupee
NPV	Net Present Value
NSMP	National Sewerage Master Plan
NSP	National Sewerage Program
NTA	National Transport Authority
PAD	Project Appraisal Document
PAP	Project Affected Persons

PBC	Performance-Based Contracts
PDO	Project Development Objectives
PPC	Project Plan Committee
PPF	Project Preparation Facility
PSIP	Public Sector Investment Program
RDA	Road Development Authority
RE	Renewable Energy
RMS	Road Management System
SCD	Strategic Country Diagnostic
SDR	Safeguards Diagnostic Review
SIM	Sector Investment and Maintenance Loan
TAS	Treasury Accounting System
TMRSU	Traffic Management and Road Safety Unit
USD	United States Dollar
WMA	Wastewater Management Authority
WRU	Water Resources Unit

Vice President:	Makhtar Diop
Country Director:	Mark Lundell
Sector Manager:	Supee Teravaninthorn
Project Team Leader:	Richard Martin Humphreys
ICR Team Leader:	Sevara Melibaeva

REPUBLIC OF MAURITIUS
Infrastructure Project

CONTENTS

A. Basic Information			
Country:	Mauritius	Project Name:	Mauritius - Infrastructure Project
Project ID:	P091828	L/C/TF Number(s):	IBRD-77340
ICR Date:	06/25/2015	ICR Type:	Core ICR
Lending Instrument:	SIM	Borrower:	GOVERNMENT OF MAURITIUS
Original Total Commitment:	USD 50.00M	Disbursed Amount:	USD 47.70M
Revised Amount:	USD 47.70M		
Environmental Category: B			
Implementing Agencies: Ministry of Public Infrastructure, Land Transport and Shipping			
Cofinanciers and Other External Partners:			

B. Key Dates				
Process	**Date**	**Process**	**Original Date**	**Revised / Actual Date(s)**
Concept Review:	07/09/2008	Effectiveness:	02/19/2010	02/19/2010
Appraisal:	12/08/2008	Restructuring(s):		03/16/2014 11/19/2014
Approval:	09/24/2009	Mid-term Review:	11/30/2012	02/16/2013
		Closing:	12/31/2014	12/31/2014

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

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	**Ratings**	**Borrower**	**Ratings**
Quality at Entry:	Moderately Satisfactory	Government:	Moderately Unsatisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately Satisfactory	**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):	No	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Satisfactory		

D. Sector and Theme Codes

	Original	Actual
Sector Code (as % of total Bank financing)		
Public administration- Energy and mining	4	4
Public administration- Transportation	12	12
Public administration- Water, sanitation and flood protection	14	14
Rural and Inter-Urban Roads and Highways	70	70
Theme Code (as % of total Bank financing)		
Infrastructure services for private sector development	25	10
Rural services and infrastructure	75	90

E. Bank Staff

Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Obiageli Katryn Ezekwesili
Country Director:	Mark R. Lundell	Ruth Kagia
Practice Manager/Manager:	Supee Teravaninthorn	Alain Labeau
Project Team Leader:	Richard Martin Humphreys	Pierre Graftieaux
ICR Team Leader:	Sevara Melibaeva	
ICR Primary Author:	Sevara Melibaeva	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

To improve the national infrastructure, with an emphasis on the transport, energy and water sectors.

Revised Project Development Objectives (as approved by original approving authority)
Not applicable.

(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 :	Disbursement ratio of annual capital budgets related to PSIP			
Value quantitative or Qualitative)	43%	80%		85%
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	106% achieved.			
Indicator 2 :	Number (and value) of projects in the infrastructure sector implemented, being implemented, or ready for implementation as defined in the PSIP			
Value quantitative or Qualitative)	0	N/A		49 (US$1.6 bln value)
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	No target defined; however, the actual value for number of projects and value increased from baseline by 100%.			
Indicator 3 :	Travel times (minutes) on Quartier Militaire Road			
Value quantitative or Qualitative)	10 minutes	5.5 minutes		5 minutes
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	111% achieved.			
Indicator 4 :	Number of accidents per year on Quartier Militaire Road			
Value quantitative or Qualitative)	11	N/A		1
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	No target defined; however, the actual value decreased significantly from the baseline.			

(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 :	Number of km upgraded as per defined standards on targeted roads			
Value (quantitative or Qualitative)	0	7.5		12.1
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	161% exceeded.			
Indicator 2 :	Number of km maintained as per defined standards on targeted roads annually			
Value (quantitative or Qualitative)	0	17		17
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	100% achieved.			
Indicator 3 :	Number of Performance Based contracts being implemented for routine maintenance			
Value (quantitative or Qualitative)	0	4		0
Date achieved	09/24/2009	12/31/2014		12/31/2014
Comments (incl. % achievement)	0% achieved - the corresponding activity was dropped and will be implemented by the RDA. Target is expected to be achieved after the project.			

(c) Output 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 :	Preparation of PSIP that meets the criteria defined in Annex 4			
Value (quantitative or Qualitative)	Not prepared	Completed		Completed
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments (incl. % achievement)	100% achieved but not with the project's assistance - implemented by the Borrower's own sources.			
Indicator 2:	LTA is fully operational			

Value (quantitative or Qualitative)	LTA is being set up	Yes		Yes, but not fully operational yet.
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments (incl. % achievement)	90% achieved. LTA has been established and is expected to become fully operational after the project.			
Indicator 3:	Number of completed feasibility / detailed engineering studies in the transport sector, which relate to transport projects identified as priorities under the PSIP			
Value (quantitative or Qualitative)	0	4		4
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments (incl. % achievement)	100% achieved.			
Indicator 4:	Master Plan for Water Resources completed and adopted			
Value (quantitative or Qualitative)	Not prepared	Completed and adopted		Completed and adopted
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments (incl. % achievement)	100% achieved.			
Indicator 5:	Number of completed feasibility / detailed engineering studies in the water sector, which relate to water projects identified as priorities under the PSIP			
Value (quantitative or Qualitative)	0	2		1
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments (incl. % achievement)	50% achieved.			
Indicator 6:	Pollution Control Laboratory is fully operational			
Value (quantitative or Qualitative)	Lab is being set up	Yes		No
Date achieved	09/24/2009	12/31/2012		12/31/2014
Comments (incl. % achievement)	0% achieved - activity was dropped due to shift in priorities in the sector.			
Indicator 7:	Detailed engineering design studies completed for the Baie de Tombeau Phase III project			
Value (quantitative or Qualitative)	Not prepared	Completed and being implemented		Completed and being implemented
Date achieved	09/24/2009	12/31/2011		12/31/2014
Comments	100% achieved.			

(incl. % achievement)				
Indicator 8:	Renewable Energy Development Strategy and implementation plan prepared			
Value (quantitative or Qualitative)	Not prepared	Completed and being implemented		Dropped
Date achieved	09/24/2009	12/31/2011		12/31/2013
Comments (incl. % achievement)	0% achieved - activity was terminated due to consultant's unsatisfactory performance. Study is being undertaken under AFD TA support.			

G. Ratings of Project Performance in ISRs

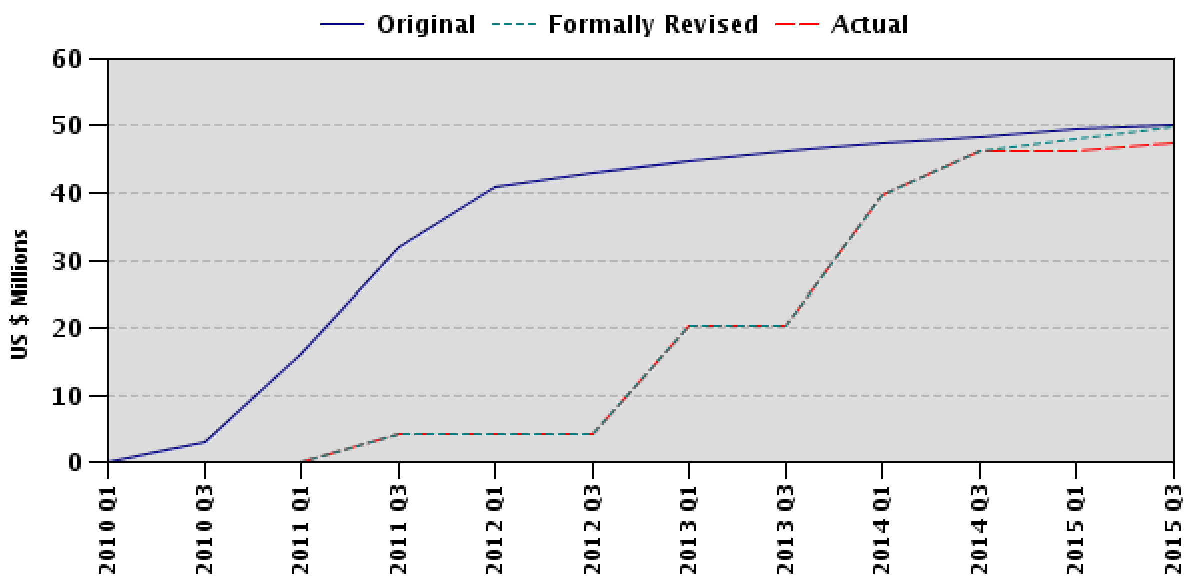
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	11/18/2009	Satisfactory	Satisfactory	0.00
2	05/16/2010	Satisfactory	Satisfactory	0.00
3	12/10/2010	Satisfactory	Satisfactory	0.76
4	07/11/2011	Satisfactory	Satisfactory	4.08
5	11/21/2011	Satisfactory	Moderately Satisfactory	4.08
6	03/21/2012	Satisfactory	Satisfactory	4.08
7	07/01/2012	Satisfactory	Satisfactory	20.41
8	12/09/2012	Satisfactory	Satisfactory	20.41
9	03/18/2013	Satisfactory	Satisfactory	20.41
10	10/13/2013	Satisfactory	Satisfactory	40.39
11	03/17/2014	Satisfactory	Satisfactory	46.22
12	11/26/2014	Satisfactory	Satisfactory	46.23
13	12/30/2014	Satisfactory	Satisfactory	47.57

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		
03/16/2014		S	S	46.22	Simple reallocation of proceeds across three categories to reflect the greater than expected expenditure requirements under categories (2) and (3) as a result of change in the scope of interventions requested by the client to include additional works to construct junctions, one bridge, and improvement

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		
					works. The requirements under Category (1) have been reduced as some programmed activities were not carried out and others were funded by the government own funds.
11/19/2014		S	S	46.23	Simple reallocation of proceeds from categories (1) and (3) to category (2) reflecting greater than expected expenditure requirements on the B6 Belle Rive and Quartier Militaire Road under Category (2), and the reduced requirements under Categories (1) and (3), Technical Assistance. The reallocated amount includes the increase resulting from the price escalation allowed under the works contract due to the agreed time extensions.

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

1. Mauritius is one of the most densely populated countries in the world,[1] with a population of about 1.2 million people, of whom about 1.14 million live on the island of Mauritius. At appraisal, about 45 percent of Mauritius island's population lived in the Port Louis and Plaine Wilhems conurbation, comprising Beau Bassin, Rose Hill, Quatre Bornes, Vacoas, Phoenix, and Curepipe. Being a small, open economy specializing in relatively low-cost labor intensive industries, Mauritius enjoyed an impressive economic growth in the 1980's and 1990's, stimulated by preferential access to markets for textiles and sugar exports. However, over the period 2005-2009 competition from lower cost manufacturers in Asia and Africa and the end of preferential trade access stimulated the Government of Mauritius (GoM) to undertake reforms to sustain its growth.

2. At the time of project preparation, Mauritius had been hit hard by the world economic crisis, and the overall economic outlook was negative. In December 2008, the GoM revised downwards its growth forecast from six to four percent and, and by March 2009 had further lowered it to 2.5 percent. Accordingly, the GoM continued to be pro-active and innovative in its response to the crisis and released a six-month budget for July-December 2009, which was cast as an 18-month action plan …*to ride out the global crisis to save jobs, protect people and prepare for the recovery*. Numerous measures to accomplish this objective were announced, including the following five priorities: (i) job preservation through direct support to enterprises; (ii) boosting project realization capacity in the public sector; (iii) launching a large Public Sector Investment Program (PSIP); (iv) strengthening the eradication of poverty program; and (iv) maintaining expansionary fiscal and monetary policies.

3. Infrastructure bottlenecks were seen among the major factors impeding growth, contributing to the high cost of exports and the erosion of competiveness of Mauritius. Though a number of large infrastructure projects were planned and budgeted for, the implementation of these public investments was delayed, reflective of weak institutional capacities in the public sector, and the lack of a robust process to define, prepare, and implement an integrated Public Sector Investment Program. The Mauritius Infrastructure Project (MIP) was expected to address precisely this issue through a technical assistance component to help the GoM to lay the ground for future investments in three key infrastructure sectors such as transport, water/wastewater, and energy, together with priority investments in 'shovel ready' projects.

4. ***Transport.*** In a rapidly motorizing environment with vehicle numbers growing at seven percent annually, transport infrastructure was not being upgraded at the same pace and the condition and quality was lagging behind public expectations, especially in the most densely populated areas of Port-Louis – Curepipe corridor and on the national road network. As a result, the GoM identified a series of priority transport infrastructure investments including mainly: (i) a road maintenance program for the national road network, including pilot performance-based contracts (PBCs), (ii) a ring road around Port Louis and Harbour Bridge to take north-south traffic out of the city, and (iii) a Bus Rapid Transit (BRT) from Port Louis to

[1] Actually, the 10th most densely populated country with a density of 1,634 residents per square mile.

Curepipe where there was a strong need to improve bus service quality significantly, reduce bus travel times, and encourage modal shift to reduce the growing congestion on the key road corridor. The MIP envisaged support to the GoM in implementing these and other priorities, including piloting of PBC contracts, and preparing studies on BRT and stage bus reforms, and formulating the long term PSIP. As part of the first priorities of the PSIP, the GoM requested financing of the urgent road rehabilitation works on selected sections connecting key economic areas of the island or major villages and posing the highest road safety hazards. This was part of the GoM's public investment program, a response to the deteriorating international economy.

5. On the institutional side, the transport sector in Mauritius lacked integration in its strategic planning and the management of road safety, as plans for the development of a mode were generally being prepared independently, often resulting in duplication, conflict, and negative externalities. A consensus was reached by major stakeholders in 2006 to set up an integrated Land Transport Authority (LTA), which would combine the functions of the Road Development Authority (RDA), the National Transport Authority (NTA), and the Traffic Management and Road Safety Unit (TMRSU). The bill to create the LTA was submitted to Parliament in 2009. The MIP included support in the form of technical assistance to develop the structure and operationally establish the LTA.

6. ***Water.*** At the time of appraisal, the water sector was facing a number of challenges, including: (i) increasing demand from the various economic sectors; (ii) reduction in average annual rainfall due to climate change; (iii) rise of sea level leading to groundwater quality degradation in the coastal zone; (iv) degradation of groundwater quality due to low coverage of sanitation facilities; and (v) water quality degradation due to effluent discharged by industrial development. The development of the sector was also constrained by weak institutional capacity, lack of financial resources to invest in the sector, inconsistency in the legal framework of the sector, and a lack of cross-sectorial coordination. The GoM sought support from the World Bank to design its water resources strategy and prepare future investments in the water sector.

7. ***Wastewater.*** At appraisal, the coverage of public sewerage networks in Mauritius was at 25 percent (i.e. 63,000 households) and waste water was treated at some ten plants. The remaining 75 percent of households were still using on-site waste water disposal systems, which posed serious threats to the aquifers and created both health hazards and odors due to leaching or overflowing cesspits and leaching fields. Various activities were underway as part of the wastewater development program, including: (i) institutional strengthening of the Wastewater Management Authority (WMA); (ii) environmental monitoring and control of wastewater discharges to the WMA sewer system; (iii) implementation of industrial pollution control program; and (iv) improvement of access of the poor to suitable sanitation. Nevertheless, achieving the GoM objective of 50 percent coverage by 2011/2012 and 80 percent by 2030 was a challenge and required substantial investments. Hence, inclusion of the sector within the MIP.

8. ***Energy.*** Renewable energy sources accounted for 22 percent of total electricity generation in 2006, placing Mauritius well above the level of many developing countries in its commitment to a diversified energy mix. However, there was a growing concern about the need to meet the electricity demand, which was expected to increase substantially with population growth and higher household income. Additional generating capacity was therefore critical to meet demand in the medium term. With bagasse and hydro resources almost fully exploited, the island would have to resort to coal- and other fossil fuel-based power generation unless

substantial commercially viable renewable energy resources were developed. Recognizing the negative environmental implications of the fossil fuel-based power development, the GoM set up a fund to increase the proportion of renewable energy (RE) in the energy mix, and to promote energy efficiency. The preparation of a RE study was also to be supported under the MIP.

Rationale for Bank Support

9. The project under evaluation was originally envisioned to focus primarily on supporting a Bus Rapid Transit (BRT) system, but late in the preparation process, the Ministry of Finance and Economic Development (MoFED)[2] requested to change the project's focus towards supporting the country's multi-sectoral PSIP program on a broader level. This shift was seen by the Ministry to better reflect GoM's changing priorities and as an opportunity to efficiently and quickly prepare large investment projects in the transport, energy and water sectors, to be potentially funded by the World Bank through a series of subsequent projects, and/or by other development partners. Thus, the multi-sector nature of the MIP was intended to address key infrastructure bottlenecks and contribute to GoM's public investment program in a cost-efficient and expeditious way. The Bank was also able to accommodate this shift and redesign the project in an expedited manner within the time and resource constraints.

10. The rationale for the World Bank support under the MIP was that the Bank could increase rigor and quality of selection, preparation, and implementation of large infrastructure projects through close supervision. It could also contribute to the establishment of the PSIP, in the Ministries and line agencies. The Bank was also well placed to address the MoFED's concerns on governance in infrastructure investments through helping to improve the methodological framework currently used to design and select investments under the PSIP. The Bank was well positioned to assist the GoM in this multi-sector initiative, given its expertise and experience in developing public investment management frameworks, and within the transport sector, output and performance based approaches to rehabilitate and maintain non-concessioned roads in Latin America and in Africa, implementing BRT and bus reform projects in Latin American cities, and developing renewable energy strategies in other Middle Income Countries (e.g., Turkey, Mexico, and Argentina). The activities in the water/wastewater sectors were also complementary to an ongoing Bank-financed project - the Mauritius Economic Transition Technical Assistance Project (METAP), supporting the GoM in the preparation of the new Water Act and the setting up of a regulator.

1.2 Original Project Development Objectives (PDO) and Key Indicators

11. The Project Development Objective (PDO) of the Mauritius Infrastructure Project as stated in both the Project Appraisal Document (PAD) and the Loan Agreement was *to assist the Borrower to improve the national infrastructure with an emphasis on the transport, energy and water sectors*.

12. Through playing a key role in the definition and implementation of a high-quality PSIP, the project was expected to contribute to the following: (i) improvement of the condition of the road network through road upgrading, periodic maintenance and pilot performance-based routine maintenance contracts; (ii) preparation of investments in the urban transport sector to

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[2] Formerly known as Ministry of Finance and Economic Empowerment (MoFEE).

alleviate congestion between Curepipe and Port-Louis and in the road sector to keep upgrading the existing network; (iii) support to the government in defining a ten-year PSIP; (iv) assistance in establishing a framework for economically viable clean energy development, and thereby increase the proportion of renewable energy in the energy mix; (iv) identification and preparation of key investments in the water and wastewater sectors so as to increase water production in a sustainable way and to augment the connection to public sewerage networks from 25 percent of households as of now to 50 percent by 2012; and (v) technical assistance and training to the line Ministries and agencies.

13. The original outcome indicators were the following: (i) disbursement ratio of annual capital budgets related to PSIP; (ii) number (and value) of projects in the infrastructure sector implemented, being implemented, or ready for implementation as defined in the Public Sector Investment Program; and (iii) travel times (minutes) and number of accidents per year on Quartier Militaire Road.

1.3 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

14. There were no revisions made to the PDO and key indicators during implementation. Nevertheless, it is important to note the discrepancy and inconsistency between the PDO stated in both the PAD and the Loan Agreement and the PDO as reported and used in Implementation Status and Results Reports (ISR) throughout the entire implementation period. The latter was phrased as follows: *to prepare and begin implementation of the Public Sector Investment Program*. As such, this ICR presents the analysis and assessment of outcomes based on the PDO as stated in the PAD and Loan Agreement.

1.4 Main Beneficiaries

15. The main beneficiaries identified by the project included the population living in the vicinity of the road sections improved by the project, the road users, both passenger and freight transport companies and shippers, and exporters. In addition, the main beneficiaries of the technical assistance and institutional strengthening activities are the government implementing agencies in transport, water, and energy sectors.

16. In addition, the improvements in the quality of the road network and in the delivery of good quality urban transport services were expected to lead indirectly to economic growth and better income distribution through the creation of business development opportunities, removing infrastructure bottlenecks that constrain the productivity of Mauritius, and increasing competitiveness of producers and services providers, particularly in the tourism sector.

1.5 Original Components

17. The project included two components, namely: (1) road investments: upgrading, periodic maintenance and performance-based routine maintenance contracts on key road sections of the Mauritian network; and (2) technical assistance and institutional development in the transport, water and wastewater, and energy subsectors to accelerate and improve the 10-year Public Sector Investment Program readiness for implementation.

18. **<u>Component 1: Road Investments (US$36.1 million, including US$1.1 million financed by the Borrower).</u>** Priority was given to roads whose capacity had been or was

expected to be soon exceeded, which constituted main links to key economic areas of the island or which connected or passed through major villages and which constituted safety hazards.

(i) Upgrading of B6 Belle Rive - Quartier Militaire Road (US$22.7, including US$1.1 million financed by the Borrower)*:* Government funding was to be used to acquire the land needed for the widening of the road right-of-way), a 5.5-to-6.5 meter road, the main link between the East and the West of Mauritius, to be fully or partially rehabilitated and widened to up to 7.5 meters under the project, to alleviate congestion and above all to improve road safety on this axis, largely used by trucks and buses. Works were to include slight modifications to the alignment to smoothen the sharpest curves, the construction of bypasses to Valetta and Quartier Militaire villages and the widening of culverts in areas that got partially flooded during heavy rains.

(ii) Periodic Maintenance (US$10.4 million) for three highway sections, which had not been treated since their construction in the late 1970s and the pavement of which presented clear signs of fatigue: (i) Terre Rouge – Quay D on M2 (5 km of dual carriageway), (ii) Nouvelle France – La Vigie on M1 (8 km of single carriageway) and (iii) parts of Pamplemousses-Grand Baie on A13 (4 km of single carriageway).

(iii) Performance-based routine maintenance contracts (US$3 million) for the three highway sections mentioned above. Another performance based maintenance contract was to be executed to test the concept on lower-volume roads, possibly B20 (Old Flacq Road). The objective of this sub-component was to determine whether performance-based contracts, once adapted to the local context, are the right means to overcome a backlog of deferred maintenance on key sections of Mauritius primary network.

19. **Component 2: Technical Assistance (TA) and Institutional Development in the Transport – Water/Wastewater - Energy subsectors (US$14.875 million).** The TA components aimed at laying the groundwork for possible future Sector Investment Loans (SILs) in the three sectors in approximately two years after this project had become effective, within the framework of a Public Sector Investment Plan to be developed through the proposed loan.

20. **General:**

(i) Support to the preparation of the Public Sector Investment Program (US$500,000): This was aimed to provide TA to assist in the elaboration and finalization of the PSIP that would present a set of investment projects on a sector basis for implementation over the next ten years. The PSIP was to provide a useful guide to policymakers, development partners, line ministries/public enterprises and the private partners for informed decisions on those investment projects that could be funded partly or wholly through public funds, foreign loans/grants and private capital.

21. **Transport Sector (US$5.175 million):**

(i) Assistance for the setting up of the Land Transport Authority (US$600,000);
(ii) Assistance to the agencies in charge of Land Transport (US$550,000);
(iii) Assistance Strictly related to the creation of the Land Transport Authority (US$150,000);
(iv) Supervision and Monitoring of the Quartier Militaire Road upgrading works contract (US$425,000);

(v) Other transport studies, both in the urban transport and road transport sub-sectors (US$2,300,000), including the BRT and Bus Reform Implementation Study for the Port-Louis / Curepipe corridor, a study on taxi industry reform and removal of illegal taxi / van operators, the definition of a parking policy (including partial removal of on-street Parking in Port Louis), engineering studies and tender documents for works to enhance pedestrianized environment in Port Louis, analysis of tolling options for road projects such as the Port-Louis by-pass, TA for the setting up and purchase of a Road Management System (RMS) and consulting services for the design and evaluation of Performance-Based Contracts, etc.; and

(vi) Feasibility, Detailed Design, Environmental Impact Assessments (EIAs), Tender Documents and whenever needed, Resettlement Action Plans for an amount of approximately US$1,150,000 for (i) roads such as, but not necessarily limited to, Old Flacq Road (from its junction with A2 at Khoyratty through d'Epinay and Camp Créole to its junction with A2 at Grande Rosalie), a 6-km road segment / Terre Rouge – Triolet – Grand Baie Road (14 km from its junction with M2 at Terre Rouge through Saint Joseph, Arsenal, Solitude, Triolet, Chemin Vingt Pieds to its junction with B13 at Grand Baie) / Pailles Branch Road (2.4 km from its junction with M1 at Grewals Underpass through Pailles to its junction with A1 at Grand River North West / B6 to assess the need (and optimal timing) for a dual carriageway; (ii) round-about replacement projects, road extension program, pavement projects; and (iii) Rodrigues airport (construction of a new runway of 2,100m).

22. **Water Sector (US$5.2 million):** The proposed TA activities aimed at helping the government to prepare the investments needed to meet the objectives mentioned above:

(i) Development of a Master Plan for Water Resources, Rationalization of Water Rights and Capacity Building (US$2,000,000);

(ii) Feasibility and/or detailed design studies and/or EIAs for future investments projects (US$2,500,000) that could comprise at the time: (i) increase in storage capacity of the La Nicoliere reservoir and/or construction of Calebasses dam to increase water supply and irrigation in the North region, and (ii) the South Mauritius Water Supply project to increase water supply in the south west region;

(iii) Re-organization of Pollution Control Laboratory (US$500,000) including training of water resources staff and re-organization of Pollution Control Laboratory, including supply of equipment, training of Laboratory staff and building up of enforcement capacity; and

(iv) Update of Study on Mauritius Drainage System (US$200,000).

23. **Wastewater Sector (US$2 million):**

(i) Feasibility and detailed engineering studies (US$2,000,000) for the Baie de Tombeau Sewerage Project Phase III, consisting in the connection of an additional 7,800 households to the sewerage network in Le Hochet, Riche Terre, Terre Rouge and adjoining areas, and the upgrade/enlargement of the existing wastewater treatment plants.

24. **Energy Sector (US$2 million):**

(i) A Renewable Energy Development Study (US$1,800,000); and

(ii) Capacity Building (US$200,000) to the Ministry of Renewable Energy and Public Utilities (MoREPU) and Central Electricity Board (CEB).

1.6 Revised Components

25. There were no official revisions made to the components during implementation. However, changes introduced with the restructuring to reallocate funds on March 16, 2014, resulted in expansion of the scope of works on the B6 Belle Rive - Quartier Militaire road under component 1 and reduction of the scope of activities under component 2, as some of them were to be undertaken by the GoM's own resources, and others completely dropped (the next section provides details).

1.7 Other significant changes

26. ***Project Restructurings:*** The scope of the project was slightly changed at the Client's request dated February 24, 2014, to include additional works on the B6 Belle Rive - Quartier Militaire Road, such as additional junctions, one bridge, and improvement works in three villages. Accordingly, the Level 2 project restructuring was approved by Country Director on March 16, 2014, to reallocate funds from component 2 – Technical Assistance under Category (1) to component 1 – Upgrading of Belle Rive - Quartier Militaire Road under Categories (2) and (3). This also reflected the reduced requirements under the programmed Technical Assistance under component 2, some of which were undertaken with the GoM's own funding, and some were completely dropped from the project. Specifically, the following activities were decided to be funded by the domestic sources: (i) support to the preparation of the PSIP, (ii) Feasibility Studies and Detailed Designs in the water sector, and (iii) capacity building support in the energy sector. The dropped and not implemented activities included: (i) reorganization of the Pollution Control Laboratory, (ii) support to operational establishment of the LTA, and (iii) bus modernization study. In addition, the Renewable Energy Study was cancelled half way due to the unsatisfactory performance of the consultant, but was to be completed under the TA funded by the French Development Agency (*Agence Française de Développement,* AFD). Annex 2 provides specifics on which activities were dropped from the project and why.

27. Another Level 2 restructuring for reallocation of funds across categories was approved by the Country Director on November 19, 2014, to accommodate the greater than expected expenditure requirements under component 1 for the B6 Belle Rive – Quartier Militaire road works resulting from the price escalation allowed under the works contract due to the agreed time extensions. The time extension reflected a delay due to an extreme weather event, a cyclone, and partial flooding of the works for some weeks. The reallocation also reflected the reduction in the scope of activities under component 2 (Technical Assistance).

28. After the project closed on December 31, 2014, with a final disbursement deadline date of April 30, 2015, the undisbursed balance of US$2,300,794.17 was effectively cancelled on April 30, 2015.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

29. The MIP was a complex project prepared within the resource and time constraints in a challenging political economy context. The Bank team accommodated the government's change of priorities by shifting late in the preparation process from the initially planned project focused primarily on the BRT system towards supporting the broader infrastructure agenda under the PSIP. As a result, the project was reshaped and delivered quickly and under

considerable pressure from the MoFED. While the Bank team's engagement on technical level was strong at entry, the political economy aspects in the project design were overlooked. Moreover, the politically significant projects and accompanying reforms driven by the MoFED had limited buy-in from the sector ministries, such as those for the establishment of a Land Transport Agency (LTA) and the development of the BRT and Bus Modernization Program.

30. ***Soundness of the Background Analysis*.** The analysis of the national context and sector background is found to be sound, reflecting on the experiences and lessons of previous Bank financed projects in Mauritius - two highway projects, which closed in 1995 and 1999 respectively, the Port Development and Environment Protection Project, which closed in 2002, and the Environmental Sewerage and Sanitation Project, which closed in 2006. Furthermore, the project design incorporated lessons learned from energy and water projects funded by other development partners, such as AFD, United Nations Development Programme (UNDP), the European Union (EU), Nordic Investment Bank, and others. However, as mentioned above, the background analysis and understanding of the political economy aspects was lacking in the project design, especially in the context of the upcoming general elections planned a year after the Board approval date.

31. ***Adequacy of Government Commitment.*** The project was strongly supported by the GoM at the high level during preparation, as all the activities included in the project were the priorities of the MoFED at the time. Many of the procurements were already ongoing for some of the project activities, funded through the Project Preparation Facility (PPF), and were at an advanced stage by the time of effectiveness. These included, the consulting services to prepare the BRT and LTA studies as well as the Renewable Energy Study, and the Water Master Plan. The transport interventions and technical assistance to strengthen other infrastructure sectors and prepare solid ground for the follow up investments in these sectors under the PSIP were all among the top priorities of the GoM at the time and supported the objectives of the Country Partnership Strategy (CPS, 2006). The GoM commitment was evidenced by the following: (i) preparation of the required terms of reference and requests for proposals for a number of services was completed before project approval; (ii) recognition by the GoM at the time of the need to undertake comprehensive assessment of key infrastructure requirements and strengthen institutional capacity to identify and implement large infrastructure projects; and (iii) the detailed engineering designs for the largest investment in upgrading the B6 Belle Rive – Quartier Militaire road were completed before Board approval. However, the project was driven primarily by the MoFED, and buy-in from some of the sector ministries of the reforms agenda supported under the project was limited.

32. ***Assessment of Project Design*.** The project was designed at the time to respond to the needs and priorities of the GoM. The intermediate outcome and output indicators were adequately designed at appraisal from a technical, social, and sustainability standpoint. The project objectives were important for the country and sector and furthered the CPS (2006) and PSIP priorities by addressing the bottlenecks in the road infrastructure and supporting identification and preparation of future infrastructure investments in energy and water. Nevertheless, the PDO design was too broad and the alignment between the PDO and the outcome indicators and components was weak, especially in regards to the energy and water interventions.

33. In regards to the design of specific components and quality at entry, the PBC pilot sub-component at entry was lacking the necessary preparatory work to understand the needs and constraints on the ground before it was designed. First, the allocated funding of US$3 million

for PBC contracts is considered insufficient to launch these types of contracts, even on a pilot basis, in a country with no previous experience. Second, experience had shown that PBC contracts would not be attractive to the private sector for a road section as short in length as 4, 5 or 8 km, which are the corresponding lengths of the road sections proposed for pilots. The Bank team could have studied the subject more deeply and advised the client on the required steps to be taken in order to introduce successfully this new maintenance method in Mauritius and designed this sub-component with a more realistic allocation and timeline. However, it is recognised that the team was under considerable pressure from the MoFED to deliver the project, which explains the limited preparation of this aspect. But as a result, this sub-component was not utilized, though remained relevant for the sector (see additional discussion in section 5.1-a – Bank Performance Ensuring Quality at Entry).

34. ***Assessment of Risks.*** The overall risk of the project was rated as modest at entry and the overall residual risk as low. In general, the project's potential risks and the measures to mitigate them were identified adequately and incorporated in the project design. However, an important risk, which has been underestimated and not sufficiently analysed during project preparation and design, is the unstable political economy and the upcoming elections, which are key factors affecting delays in implementation and cancellation of some major activities under the project. Another risk, although recognized during preparation, proved to be particularly recalcitrant and even more significant throughout the implementation of the project. This was the implementation capacity of the sector agencies and line ministries, and especially the capacity of the Ministry of Public Infrastructure, Land Transport and Shipping (MoPILTS) to coordinate and oversee the implementation of the MIP as the chair of the Project Plan Committee (PPC). The PPC had been established at the request of the MoFED to screen, prioritize, and select the priority projects in the public investment project, and included representatives from all line agencies and infrastructure ministries. It was also identified, again at the behest of the MoFED, as the appropriate body to oversee the project.

35. In regards to ratings, most of the risks emerged and remained high throughout the implementation of the project: (i) the risk of lack of commitment from the GoM to implement the loan and materialize the investments to be identified and prepared under the project; (ii) the risk of delays in the institutional arrangements to create LTA; and (iii) gap that may materialize between project costs estimates at appraisal and real costs at bid presentation. Also, the risks expected to be moderate or low became the highest risks for the project affecting and jeopardizing implementation progress. Specifically, the Financial Management (FM) risk rating related to the disbursements and financial reporting was moderate and low after mitigation, however it remained high throughout the project with delayed disbursement during the first 3 years and systematic delays in the submission of Interim Financial Reports (IFRs). This improved by the fourth year of the project after the Auditor General's office took over formal responsibility for the FM aspects of the project.

2.2 Implementation

36. The project implementation progress was satisfactory in terms of completion in a timely and satisfactory manner of the large infrastructure works under component 1 (upgrade of the B6 road section and rehabilitation of the three highway section) executed by the RDA, and some of the studies in the transport and water sectors implemented by the respective line ministries. However, the overall progress is rated moderately satisfactory taking account that due to changes in priorities and subsequent GoM decisions, a number of activities were either not implemented or implemented with the GoM's domestic source (Annex 2 provides details

on completed and dropped activities, by output, component and responsible implementing agency). The main issues and changes that emerged during implementation and affected progress are discussed below:

Factors generally subject to Government Control

37. ***Disbursements were delayed significantly during the first three years of implementation, despite a number of contracts being awarded, completed or significantly advanced***. By October 2011 (20 months after effectiveness), with the works and services completed or significantly advanced amounting to about US$12 million that was being paid by the budget, the actual disbursement in the project was only 8.4 percent (five times below the projected amount). The main reasons for disbursement delays were the unfamiliarity and lack of understanding of the Bank's disbursement process, delays with opening the designated account and submission of specimen signatories, and delay in appointing a Project Manager or nominated FM specialist responsible for overseeing timely submission and coordination of FM issues across various implementing agencies. The Bank team had repeatedly identified the flow of project funds as being main obstacle to the disbursements and had recommended remedial measures, but the government was slow to implement the solutions and a year later there were still no disbursements. Even after the signing of the largest contract for B6 road upgrading works on April 29, 2011, all the works and services were being paid from the local budget funds. By June 2012, the actual bottlenecks preventing disbursement were finally resolved, as discussed in more details in section on fiduciary compliance (section 2.4 – Financial Management). Subsequently, by November 2012 the total disbursement increased from 8.4 percent to 47 percent, and followed the revised projection reaching 95 percent by project closing.

38. ***A number of activities were dropped from the project mainly as a result of changes in political priorities or decision of the GoM to pay for some activities with domestic funds rather than with IBRD loan.*** The following activities were either dropped entirely due to Borrower's changed priorities after the 2010 general elections or undertaken by the Borrower with domestic sources, specifically: (i) technical assistance and capacity building to assist in the elaboration and finalization of the PSIP was dropped and implemented with GoM's own resources; (ii) assistance to the agencies in charge of land transport was requested to be dropped by the Borrower and be included in the next project; (iii) assistance for operationalization of the LTA was dropped as the LTA was not yet fully operational by the project closing; (iv) BRT and Bus Reform Study was dropped at the Borrower's request as the GoM changed its focus towards construction of the Light Rail Transit, funded from other sources; (v) feasibility study for Rodrigues Airport was completed with GoM's own funds; (vi) feasibility study for the South Mauritius Water Supply project was completed with Borrower's own funds and studies for North Water Supply and Calebasses dam projects were dropped due to shift in sector priorities in accordance with the Water Sector Master Plan prepared under the project; (vii) reorganization of Pollution Control Laboratory was dropped since similar labs were already in place and there was no longer a need for this Laboratory; (viii) the contract for the Renewable Energy Development study was terminated due to poor performance of the consultant, and the study was planned to be completed with the support from other development partners; (ix) capacity building support in energy sector was dropped following the Borrower's decision not use loan funds for training; and (x) the PBC pilot was dropped due to insufficiently allocated financing and inadequately designed sub-component (see also section 2.1 above). Annex 2 provides details on completed and dropped activities, by output, component and responsible implementing agency.

39. ***The political debate around the BRT and Bus Modernization Program kept the contract signing with the selected consultant hanging without any decision from the Government side.*** The debate was driven by the elections campaign and political shifts promoting Light Rail Transit (LRT) as an alternative to the BRT. After having explicitly requested, committed and accelerated the procurement process for this study in the hope of launching an IBRD financed project for BRT within the next 18 months after MIP's approval, the Government suddenly started backing up on its commitments within the first year of project implementation and at a very advanced procurement stage for the respective consulting services. Moreover, the delays with the establishment of the LTA after the passing of the bill by the Parliament jeopardized some of the technical assistance activities under the MIP to support the establishment, training and capacity building of this new agency.

40. ***The issues raised by the 2013 Mid-Term Review were fully addressed and resolved by the project closing.*** A Mid-Term Review (MTR) was carried out on February 16-29, 2013. The main findings and issues raised by the MTR were as follows: (i) 70 percent completion of the works to upgrade the B6 road; (ii) inadequate and negligible routine maintenance on the three rehabilitated highway section, with clear sign of the rehabilitation works already wearing off, lack of repair to the safety barriers and excess vegetation. This was acknowledged by the RDA as an issue to be addressed; (iii) the progress of compensation for the land acquisition for the B6 works was slow and posed a risk that the compensation process would not be completed before completion of the upgrading of the road. This required close monitoring by the RDA of the implementation of expropriation under a Land Acquisition Plan (LAP); (iv) in financial management of the project, delays in receipt of required interim unaudited reports and withdrawal requests were flagged; (v) in regards to procurement, all processes were in compliance and all activities financed by the loan were closed and completed, except the B6 road works and Land Drainage study; and (vi) reallocation of proceeds was required to cover costs increases for the upgrading of the B6 road. All these issues were addressed and resolved by the project closing.

Factors outside the Control of the Government

41. ***The B6 rehabilitation works resulted in costs which exceeded the appraisal estimate by about 50 percent.*** The cost of upgrading of the B6 Belle Rive – Quartier Militaire Road was revised from US$22.7 million allocated in the project appraisal stage to approximately US$32 million after the project effectiveness date. The ICR team found that the cost estimates of upgrading B6 road were not carefully checked at the project appraisal stage in December 2009. It was not until the completion of the bidding documents in late 2010 that the cost estimates were updated and revised to US$31.7 million (constituting about a 20 percent increase). This increase reflected the requests from stakeholders to incorporate additional works on the B6 Belle Rive - Quartier Militaire Road, such as additional junctions, one bridge, and improvement works in three villages. There were further increases in cost, reflecting delay induced by inclement weather and a flooding issue on one section, which resulted in the further increase of the contract amount to about US$35 million total. Since some of the initially planned activities were already funded directly by the GoM and some were not going forward due to a change in priorities, the additional cost increase was accommodated by a restructuring within the project loan. The Bank team also proposed to transfer some of the longer term technical assistance and capacity building activities (including the PBC contracts) to a subsequent Bank operation, which was already under preparation. However, that project was dropped at

appraisal stage, reflecting a change in the priorities of the GoM ahead of the 2013 general election.

42. ***Consequently, Project Restructurings were carried out to reallocate proceeds for increase in costs of works.*** Following the Client's request to include additional works on the B6 Road, the Level 2 project restructuring was prepared by the Bank team and approved by Country Director on March 16, 2014, to reallocate funds from component 2 – Technical Assistance under Category (1) to component 1 – Upgrading of Belle Rive - Quartier Militaire Road under Categories (2) and (3). As mentioned above, some of the programmed Technical Assistance activities under component 2 were undertaken with the GoM's own funding, and some were completely dropped from the project. Specifically, the following activities were taken over by the GoM's own funding: (i) support to the preparation of the PSIP and (ii) Feasibility Studies and Detailed Designs in the water sector. The dropped and not implemented activities included: (i) reorganization of the Pollution Control Laboratory, (ii) renewable energy study, and (iii) support to establish the Land Transport Authority, and (iv) bus modernization study.

43. Another Level 2 restructuring for reallocation of funds across categories was approved by the Country Director on November 19, 2014, to accommodate the greater than expected expenditure requirements under component 1 for the B6 Belle Rive – Quartier Militaire road works resulting from the price escalation allowed under the works contract due to the agreed time extensions. The reallocation also reflected the reduction in the scope of activities under component 2 (Technical Assistance).

44. ***The main factors contributing to these cost overruns was unanticipated increase in crude oil prices and lower engineering design specifications included at appraisal.*** The crude oil prices were at approximately US$40 per barrel at the time of appraisal in 2008, and increased to approximately US$80 by the time the bidding documents were completed at the end of 2010. The design change from simple widening of the existing highway to widening plus construction of bypasses was not reflected in the cost estimates during preparation. During preparation, the design for upgrading B6 road was expected to comprise rehabilitation and widening from 5.5-6.5 meters to 7.5 meters, slight modifications to the alignment to smoothen the sharpest curves and the construction of a round-about in Belle Rive, for which the total cost was estimated at US$25 million. At the appraisal stage, the design then included the construction of bypasses to the village of Valetta and Quartier Militaire, instead of simple widening of the road through both villages; however, the cost was not updated to account for the changes in design. Nevertheless, it is important to note that since the road passes through the semi-urban settings, it is more challenging to accurately estimate costs as there is a considerable number of additional and ancillary works (e.g. drainage works and retaining walls in the case of the B6 contract) that are hard to detail in the Bill of Quantities.

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

45. ***Design.*** Project M&E was based on the agreed Results Framework and monitoring arrangements designed at appraisal. The intermediate outcome and output indicators were adequately designed at appraisal from a technical, social, and sustainability standpoint. However, the PDO as designed was too broad and lacked the strong linkage with the outcome indicators and components, especially with regard to the energy and water interventions. In addition, there is a weak causal linkage in the results chain between the project components and two of the outcome indicators related to the increase in disbursement ratio of PSIP budgets

and the increase in the number of projects in the PSIP, making it difficult to assess and attribute the project interventions. While it is clear that all the outcome indicators provide a measurement of the achievement with respect to the transport interventions, the achievement of the energy and water sector objectives can be assessed based on the output indicators only. It is also important to highlight that the second outcome indicator – "Number of (and value) of projects in the infrastructure sector implemented, being implemented, or ready for implementation as defined in the PSIP" – is missing a target value; and the fourth indicator – "Number of accidents per year on Quartier Militaire Road" – is also missing the target value.

46. The Bank team did not restructure the project to reflect the changes in the government's priorities in order to adjust the results framework and drop the indicators associated with the dropped activities. Consequently, there are zero or values below targets for some of the output indicators at the end of the project, which essentially affects and penalizes the overall ratings for the project. This could have been avoided if the indicators were dropped when determined to be irrelevant. The Bank team could have taken advantage of restructuring carried out to adjust and drop the indicators.

47. ***Implementation and Use.*** The PPC chaired by the MoPILTS was charged with the responsibility to collect data to report on progress of achievement of the indicator targets in collaboration with the designated focal point in each beneficiary agency. The designated focal points of the beneficiary agencies were responsible for the data collection and reporting on indicators related to their respective component and subcomponent. However, the reporting of indicators on the client's side remained weak throughout the project implementation reflecting partly the weak implementation arrangements, lack of coordination among implementing agencies and lack of coordinating leadership, and absence of the Project Manager, who was not appointed until much later during implementation. Moreover, the M&E was not utilized effectively to identify problems during the implementation.

2.4 Safeguard and Fiduciary Compliance

48. ***Environmental Safeguards.*** Project preparation with regards to safeguard aspects was carried out in accordance with Bank guidelines and reflected in the Project's Operational Manual. The project was rated as Environmental Category B, Partial Assessment. Environmental Assessment (OP/BP 4.01) safeguards policy was triggered under the project. Accordingly, an Environmental Impact Assessment (EIA) was prepared for the upgrade of the Quartier Militaire road section and Environmental Management Plan (EMP) for the periodic maintenance of the three highway sections. These were disclosed prior to appraisal and were implemented by the GoM in a satisfactory manner. Project performance was consistently rated satisfactory for compliance with environmental safeguard policy. The Bank team's site visits confirmed that occupational health and safety standards were generally followed by the contractors, construction sites were well maintained, construction waste was being removed and/or reused in a timely manner, and borrow pits were established. Appropriate safety measures were taken for temporary road diversions along the route. In cases where trees were cut down for the project, replanting was carried out in consultation with the Conservator of Forests.

49. In addition, the Safeguards Diagnostic Review (SDR) was carried out in July 2010, concluding that Mauritius' environmental policies were sufficiently robust to meet the WB and other development partner safeguard requirements, if complemented by project-specific environmental management plans to fill in the legislative and capacity gaps and good oversight and monitoring, and that they were being implemented in a satisfactory manner. The review

also recommended that in the long term Mauritius' environmental and social safeguard policies and regulations needed to be further developed as well as country's capacity to implement these policies and regulations needed to be improved to reach good international standards.

50. ***Social Safeguards.*** Project preparation and implementation of the social safeguards was carried out in a satisfactory manner with the Bank's requirements. Involuntary Resettlement (OP/BP 4.12) was triggered under the project. Upgrading of B6 Belle Rive - Quartier Militaire Road required land acquisition and compensation to the Project Affected People (PAPs). Accordingly, an Abbreviated Resettlement Action Plan (ARAP), or Land Acquisition Plan (LAP) used in Mauritius, was prepared and disclosed prior to appraisal and was implemented in a manner satisfactory to the Bank before the commencement of respective works. This was ensured through a very close supervision of the process by the Bank's safeguards specialist with almost bi-monthly missions. The compensation for the land acquisition was paid by the GoM's own resources in the amount of US$1.1 million. The allocation was made to the Ministry of Housing and Lands and placed in a separate escrow account for the purposes of compensating for the land acquired for the upgrading of the B6 road section. This was the first project, in which such approach was followed and was accepted by the Bank as the proof of compensation for resettlement.

51. ***Financial Management (FM)***: The financial management compliance was rated moderately satisfactory and even once downgraded to unsatisfactory during implementation. The submissions of IFRs, audited financial statements and audit reports were consistently and significantly delayed. The disbursements were lagging behind with only eight percent disbursed 20 months after project effectiveness, when implementation was progressing well with some activities already completed or significantly advanced. These activities were paid from the GoM's own budget and no disbursement requests from the loan were being submitted to the Bank. By June 2012, the following were identified as being the main obstacles preventing disbursement: (i) non-compliance and inadequacy of FM arrangements; (ii) delay in designation of a dedicated project FM specialist; (iii) incompleteness of the project codes in the Government Treasury Accounting System (TAS) chart of account, which prevented the flow of loan funds, consolidation of project transactions, and preparation of appropriate financial reports. In November 2012, a decision was made by the Government to strengthen the FM arrangements by transferring the responsibility for FM for all donor-funded projects to the office of the Accountant General, which as a result ensured more adequate FM arrangements with suitably qualified and experienced officials to perform the tasks. Subsequently, disbursements started increasing gradually following the revised projection and by the project closing date 95 percent of the loan was effectively disbursed with the undisbursed balance of US$2,300,794.17 cancelled on April 30, 2015.

52. ***Procurement.*** The procurement processes for all activities under the project were conducted in full compliance with the Bank's procedures. During the implementation, there were delays in updating the Procurement Plan by the implementing agencies on a timely manner and communication problems between the PPC and the line ministries in regards to the status of no objection requests submitted to the Bank. These, however, stem from the fundamental issues related to implementation arrangements discussed earlier, such as lack of coordination among the implementing agencies, PPC's unfamiliarity and lack of experience with the Bank processes and requirements, lack of accountability within the PPC for the project, and substantial delay in appointment of a Project Manager or Coordinator. There were also some delays in procurement processes evidenced by an 18 month gap between the submission of bids and contract signing for the LTA study. These delays were caused, as discussed earlier,

by the deferred decision-making of the Government, given the political sensitivity of establishment of the LTA and the shifting priorities in the pre-election political arena in regards to supporting the necessary reforms.

2.5 Post-completion Operation/Next Phase

53. Sustainability remains a concern, as there has been an imbalance in spending in the sector. Over the period 2010-12, the RDA has been spending approximately MUR 155 million per annum (US$5.3 million equivalent) on routine maintenance, and MUR 846.1 million per annum (US$29 million equivalent) on scheduled periodic and upgrading work on the entire primary network. The majority of the expenditure is on upgrading, with a lessor share on necessary maintenance. Currently the maintenance of roads is planned on an annual basis for work to be carried out through annual maintenance contracts, or on a weekly basis for work to be carried out by direct labor employed by the RDA. But the system is not working. The impact of the limited maintenance is clear, with visible cracking, deformation, edge break, blocked weep-holes and gullies, overgrown verges, uncured drains, damaged guardrails and handrails, and dirty road furniture etc. The concomitant is an increased rate of network deterioration, resulting in increased costs for road users, and creating a contingent liability of future rehabilitation costs. The Bank was working with the RDA to define an Asset Management Strategy, and pilot PBC contracts under the follow up operation on Road Asset Management and Safety, for which the preparation was advanced but stopped at the request of the GoM due to the upcoming elections. The implementation of pilot PBCs is now going ahead with the RDA funding.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

Rating: Substantial

54. ***The relevance of the PDOs is considered high.*** The PDO has remained aligned with the country's goal to improve economic growth and reduce poverty and with current priorities of the GoM. The project was consistent with the objective of the CPS, dated October 12, 2006, to help the government realize successfully Mauritius' transition to a more competitive and sophisticated economy that requires the removal of infrastructure bottlenecks. The MIP was directly contributing to the GoM's priorities through supporting the development of PSIP towards achievement of the objective of the 18-month action plan. In addition, the project was aligned with the 10-year road maintenance program (2009-2018) prepared by the RDA, the 20-year National Sewerage Master Plan (NSMP) (1993-2012), and the National Sewerage Program (NSP). The project development objective remains very relevant for Mauritius. The capacity of many of the line agencies to identify, design, implement and supervise investment projects remains weak, and the need to improve public investment management more generally is highlighted in the draft Strategic Country Diagnostic (SCD) as a potential area of future engagement.

55. ***The relevance of project design is rated modest.*** The project investment components separately were in line with the country's priorities at the time of appraisal, however, the linkage between the PDO and the components was weak. The lending instrument was the Specific Investment and Maintenance Loan (SIM) and was found appropriate as it allowed for value added offered by the Bank in closely accompanying and monitoring the implementation of the projects through close technical supervision, procurement advice, safeguards monitoring, etc. The implementation arrangements were set up with at least eight implementing agencies,

including RDA and sector ministries responsible for specific outputs and a PPC under the MoPILTS, which had proven to be ineffective and became irrelevant when activities implemented by the Ministry of Energy were all dropped. The reduction and revision of the scope of some activities under both components made sense on two fronts: (i) removed activities that were either no longer relevant due to change in country's political priorities or were implemented by the Government's own funds or other donors, and (ii) allowed to accommodate reallocation of funds to cover the increased costs for the major road works. Nevertheless, the corresponding adjustments resulting from this reduction in the scope of some components were not properly reflected in the results framework and PDO to ensure that the indicators and their targets were aligned with the PDO given the change in the scope of components. Specifically, this refers to the dropped PBC sub-component, BRT study, Renewable Energy Study and capacity building in the energy sector. Thus the modest rating for the relevance of the overall project design.

3.2 Achievement of Project Development Objectives

Rating: Substantial

56. Overall, the project has completed all planned activities, except those dropped at the request of the Government (Annex 2 presents detailed list of completed and dropped outputs explaining the reasons for the dropped ones). The project has met the targets for the two out of three PDO indicators, and end targets for 11 out of 14 intermediate indicators. The PDO is considered to have been largely achieved.

57. The project contributed through its support in developing the feasibility studies and other technical assistance (4 in the transport sector and 3 in the water/wastewater sectors), to the increased number and value of projects in the infrastructure sector, which reached 49 projects estimated at US$1.6 billion in value, a substantial increase from a zero baseline figure. Though some activities were dropped, corresponding to output indicators that were not achieved, such the completion of Pollution Control Laboratory, Renewable Energy Study, and Preparation of PSIP, the project's contribution towards formulation of the PSIP was significant. In addition, the disbursements of annual capital budgets related to PSIP have reached 85 percent by the project end, exceeded the original target of 80 percent, to which the project contributed substantially by supporting implementation and timely completion of the road investments as part of the first module of PSIP.

58. ***Improving the infrastructure in the transport sector.*** In regards to transport, PDO was substantially achieved with the travel times on Quartier Militaire road being reduced from 10 minutes to 5 minutes, exceeding the target by 110 percent, and number of accidents per year on the same road decreasing significantly from 11 to 1 accident. Additionally, two intermediate outcome indicators were successfully achieved, specifically 12.1 km of road was upgraded exceeding targeted 7.5 km and periodic maintenance was completed on total of 17 km of targeted roads. The third intermediate output indicator on the "number of PBC contracts being implemented for routine maintenance" is expected to be met after project closure, as the RDA is proceeding with piloting performance based maintenance, using their own resources, and on the basis of the findings and recommendations of the Asset Management Strategy study funded through the PPIAF grant. Though, the respective intermediate results indicator was not dropped, it does not have any adverse impact on the PDO and outcomes of the project. In addition, the following transport sector output indicators were achieved: (i) completion of four feasibility studies in the transport sector as contributions to the PSIP (Pedestrian Underpass, RMS, East-West Connector, and Rodrigues Airport, though the latter was completed by the GoM's own sources); and (ii) establishment of LTA (to be operationalized after the project).

59. ***Improving the infrastructure in the water sector.*** The completion of the following outputs in water/wastewater sectors contributed significantly towards achievement of the PDO outcome indicator on the number of infrastructure projects ready for implementation under the PSIP: (i) completion and adoption of the Master Plan for Water Resources, which defines a number of priority water projects to take forward; (ii) completion of the feasibility study and detailed design for the Land Drainage; and (iii) completion of the necessary studies and ongoing implementation of the Baie de Tambeau Phase III project. The activity that was dropped is the operationalization of the Pollution Control Laboratory, which was dropped at Client's request as there were two other similar labs already in place, which had been upgraded with GoM's own funds. The fact that this outputs indicator was not achieved has no adverse impact on the achievement of PDO and project outcomes.

60. ***Improving the infrastructure in the energy sector.*** The activities under the energy component were dropped, namely the preparation of a Renewable Energy Study, which was launched but terminated half way through due to unsatisfactory performance of the consultant. However, this study was subsequently taken forward with support from the AFD, and agreed with the Bank team. The fact that this outputs indicator was not achieved has no adverse impact on the achievement of PDO and project outcomes.

61. Given the above assessment and summary of achievement of the outcome indicators in Table 1 below, the achievement of the PDO is rated substantial.

Table 1. Assessment of Efficacy

PDO Indicator	Targets	Actual Values	Percent Achieved
Aggregate Rating of Efficacy: *Substantial*			
PDO: *to assist the Borrower to improve the national infrastructure with an emphasis on the transport, energy, and water sectors.*			
(i) Disbursement ratio of annual capital budgets related to PSIP	80%	85%	106%
(ii) Number (and value) of projects in the infrastructure sector implemented, being implemented, or ready for implementation as defined in the PSIP	N/A	49 (US$1.6 bln)	Increase from baseline of 0
(iii) Travel times (minutes)	5.5	5	111%
(iv) Number of accidents per year on Quartier Militaire Road.	N/A	1	Decrease from baseline of 11

3.3 Efficiency

Rating: Modest

62. The costs of the works contracts were considered acceptable and consistent with regional norms. There was a significant cost increase in the works contract from the appraisal stage estimate, for the B6 Quartier Militaire-Belle Rive Road reflecting a decision, subsequent to Board approval, to change the scope of the works and include the construction of bypasses, additional junctions, one bridge, and improvement works in the three villages. During construction, problems caused by a cyclone, and inundation of works, led to a further delay in time, and a request for an extension, agreed with the client. This was considered reasonable.

63. This rehabilitated section is an important link for alleviating traffic congestion and improving road safety between highly populated areas along Motorway 2 (M2) and the eastern

region. The construction of the bypasses and the improvement of the road has led to a marked reduction in both travel time between Wooton and Quartiers Militaire from 10 minutes to five minutes, a reduction in fatal and serious accidents decreasing from 11 to 1, and a marked improvement in the ambiance of the bypassed communities.

64. The ex-post economic evaluation of the Upgrading of B6 Belle Rive - Quartier Militaire Road, which accounts for 67 percent of the expanded loan amount, followed the same approach as the ex-ante economic analysis, i.e. estimating road users' surplus using the Highway Development and Management Model (HDM-4). Concretely, the evaluation calculated benefits to road users (as compared to a without-project scenario) in terms of savings in travel time savings and vehicle operating costs, as well as costs of the investments in road works, and assessed streams of a net economic benefits to a society. Based on the analysis, the net present value (NPV), at a 10 percent discount rate, and the related internal rate of return (IRR) of the investments over 20 years were respectively estimated at MUR 179 million and 11.7 percent respectively. Though the results demonstrated that the project remains economically feasible, the values of NPV and IRR are much smaller than those estimated at the feasibility stage. This is mainly due to (i) increase in civil works cost by 46 percent and (ii) 27 percent lower traffic volume in 2012 compared to the projected value at appraisal. Therefore, the efficiency is rated modest.

65. Nevertheless, neither the ex-ante nor ex-post economic evaluation take into consideration the savings from the reduction in road traffic fatalities and benefits to the pedestrians and non-motorized traffic from the widening of the road, which could be more significant and demonstrate the greater efficiency of the project.

3.4 Justification of Overall Outcome Rating
Rating: Moderately Satisfactory

66. ***Relevance.*** The overall relevance is rated substantial based on the high relevance of the project objectives and modest relevance of the design. The GoM's commitment was high at appraisal but declined subsequently for some of the sub-components, which affected the relevance of some of the project activities while the overall development objectives remained highly consistent with the GoM's PSIP and the Bank's SCD.

67. ***Efficacy.*** The overall efficacy is rated substantial as evidenced by the achievement of all the PDO outcomes, given that the project contributed to: (i) improved implementation capacity by infrastructure agencies of investments increasing disbursement ratio of annual capital budgets related to PSIP from 50 percent to 85; (ii) increased capacity to identify and prepare infrastructure projects with additional 49 projects included in the PSIP for a total of US$1.6 billion; (iii) reduced congestion and travel time savings from 10 to 5 minutes on the Quartier Militaire road section; and (iv) improved road safety on the same road with reduced accidents per year from 11 to 1. The dropped activities from the project did not have any adverse impact on the PDO achievement and overall project outcome.

68. ***Efficiency.*** The project efficiency is rated modest as while the economic assessment of the largest investment under the project (upgrade of the Belle Rive – Quartier Militaire road) yields robust returns, a number of activities and outputs included in the project were either dropped or not implemented.

69. Considering the discussion above on the project's achievement of its objectives, in its efficiency and relevance, the overall outcome is rated moderately satisfactory.

3.5 Overarching Themes, Other Outcomes and Impacts
(a) Poverty Impacts, Gender Aspects, and Social Development

N/A

(b) Institutional Change/Strengthening

70. The project envisaged under component 2, a major allocation of funds to support institutional strengthening and capacity building to assist the GoM in formulation of the long term PSIP and prepare the ground for the next series of infrastructure investments, to be funded either by the Bank or other development partners. The capacity building was included for the energy, water and transport agencies, however, given the decision of the government not to use loan proceeds for training, these activities were dropped. The capacity of key agencies still remains weak for taking forward and implementing large infrastructure investments.

71. Major institutional change would be in place through the establishment of the LTA, which was approved by the Parliament in 2010, and is now being operationally established. Technical Assistance for establishment of the Board, staffing, and training of the staff of the LTA was part of the project's scope. However, due to delays in signing the contract with the consultant and political debates and election campaigns, the establishment took longer than expected, though prior stakeholder consensus had been reached. By the end of the project, the LTA was only established but not yet operational. The LTA is expected to take over the responsibilities of the RDA, NTA and TMRSU, as well as (i) provide the necessary institutional mechanisms for integrated and coordinated policy formulation, planning, project implementation, and transport systems management; (ii) produce a land transport master plan, manage transport resources effectively and plan, (iii) execute and manage all land transport projects; and (iv) remove duplication and bureaucracy and improve cost efficiency.

(c) Other Unintended Outcomes and Impacts (positive or negative)

N/A

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

N/A

4. Assessment of Risk to Development Outcome
Rating: Substantial

72. The risk to development outcome is rated substantial taking into account concerns of sustainability of the road infrastructure investments made through project and the functioning of LTA, and constantly changing political priorities in regards to planned infrastructure investments under the PSIP. However, whilst the PSIP process has been sustained, the sustainability of the road assets rehabilitated and upgraded under the project remains a concern, as there has been an imbalance in spending in the sector. The impact of the limited routine maintenance is clear, with already some visible wear offs and vegetation destroying the rehabilitated highways. The Bank was working with the RDA to define an Asset Management Strategy, and support the RDA in piloting PBC contracts as part of the implementation of that strategy. This is now going ahead with RDA funding, as the prospective Road Asset Management and Safety Project was dropped.

73. The establishment of the LTA, though passed and approved by the Parliament, has still not been operationalized to take over the functions of the three land transport agencies. Thus the future of the LTA and its capacity remain unclear. Moreover, constantly changing political arena and priorities may jeopardize the implementation of the infrastructure investment projects, which this project supported to prepare in the water and transport sectors.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance
(a) Bank Performance in Ensuring Quality at Entry
Rating: Moderately Satisfactory

74. In the context of challenging political economy at preparation, the Bank team was flexible to respond to Client's needs and requests and provided a PPF in the amount of US$2 million for project preparation, which was originally issued for an urban transport project but conveniently was converted to the MIP with constrained resources and time. However, the Borrower only utilized US$74,000 of the whole amount. The PPF was consequently cancelled on January 13, 2009. The last minute change in the project scope and design in order to offer a broader support to the PSIP required reworking of the financial and implementation arrangements within a limited timeframe. The rushed preparation is reflected in the weaker-than-desired design of PDO and results framework and insufficient due-diligence preparatory work for some of the activities in the water and energy sectors.

75. In regards to the design of specific components and quality at entry, the Bank team recognized the weak institutional and human capacity for implementing large infrastructure projects and included technical assistance component to support institutional and capacity strengthening in key infrastructure sectors. However, having recognized this, the team agreed to an implementation arrangement structure, which was overly complicated, fragmented and dispersed, and despite the Bank team's oversight and frequent missions resulted in disbursement delays during the first three years.

76. In addition, the design of the PBC pilot sub-component at entry was lacking the necessary prior preparatory work to understand the needs and constraints on the ground before it was designed. The Bank team could have studied the subject more deeply and advised the client on the required steps to be taken in order to introduce successfully this new maintenance method in Mauritius and designed this sub-component with a more realistic allocation and timeline. As a result, this sub-component was not utilized, though remained relevant for the sector. Also, the cost estimates for the B6 road upgrade was not adjusted during appraisal to account for the inclusion of bypasses rather than just widening of road near villages. In terms of the team composition, there was expertise lacking in the team participating in project preparation missions in the area of PBC contracts.

77. Considering that the team was able to accommodate the changing priorities of the client and respond to them quickly within the time and resource constraints, the Bank performance at entry is moderately satisfactory.

(b) Quality of Supervision
(including of fiduciary and safeguards policies)
Rating: Moderately Satisfactory

78. The Bank provided constant support in the technical and fiduciary areas to the MoPILTS, the line ministries (MoREPU, Ministry of Environment and National Development Unit (MoENDU), and MoFED) and sector agencies (RDA, CEB, Water Resources Unit [WRU], and WMA). The Bank team closely supervised and monitored the implementation of the LAP, which ensured timely compliance of RDA in regards to compensation for land acquisition prior to completion of the B6 road upgrade. During the period prior to effectiveness and during the first years of project implementation, the Bank team was able to accommodate the government's request for a more extended presence in Mauritius and conducted supervision missions on a monthly basis. The Bank team was also persistent and diligent in following up on the implementation progress and addressing any issues immediately. However, the unstable political arena with constantly changing priorities and frequently changing agenda priorities have been harmful to the implementation of the project, especially in regards to decision of great political weight and impact on the country, such as setting up of new agency LTA and proceeding with Bus Modernization and BRT studies.

79. During the course of implementation, the Bank team recognized the insufficient resources allocated for piloting the PBM contracting methods in Mauritius and in an attempt to support the GoM in launching the PBC contracts in a proper way and at the official request of the GoM, the Bank initiated the preparation of the follow up project, MIP II. However, when the project preparation was already at appraisal stage, the GoM cancelled its request for IBRD financing due to expected priority shifts in country's political arena with the upcoming elections.

80. Nevertheless, there were a few shortcomings in the Bank's performance, including the following: (i) the Bank team did not take advantage of the restructuring to adjust the results framework and drop the indicators associated with the dropped activities; and (ii) throughout the project implementation the team reported a PDO in the ISRs, which was inconsistent with the actual PDO stated both in the PAD and the Loan Agreement. Hence, given these shortcomings, but considering that the team resolved implementation and disbursement issues and the project achieved all its outcome indicators despite the difficult political economy environment, the supervision of the project is rated moderately satisfactory.

(c) Justification of Rating for Overall Bank Performance
Rating: Moderately Satisfactory

81. The overall Bank performance is rated moderately satisfactory based on the following assessment: (i) the moderately satisfactory rating for quality at entry due to shortcomings in the design of PDO and results framework but considering responsiveness of the Bank to accommodate the client's changed priorities quickly within the time and resource constraints, and (ii) the moderately satisfactory rating for quality of supervision due to oversight to timely restructure the project but considering the Bank's persistence in resolving the implementation issues and ensuring completion of major project activities on time in the environment of challenging political economy.

5.2 Borrower Performance
(a) Government Performance
Rating: Moderately Unsatisfactory

82. Though the GoM strongly supported the project at the time of entry, most activities were driven primarily by the MoFED, and the buy-in from the sector ministries was limited with respect to the reforms agenda leading up to creation of LTA and bus modernization reform. As a result, when some of the major politically motivated activities lost support at the high level during the course of implementation, the Borrower's commitment to the implementation declined. Specifically, following the elections in 2010, the political debate around the BRT and Bus Modernization Program kept the contract signing with the selected consultant hanging without any decision from the Government side. The debate was driven by the elections campaign and political shifts promoting the LRT as an alternative to the BRT. After having explicitly requested, committed and accelerated the procurement process for this study in the hope of launching an IBRD financed project for BRT within the next 18 months after MIP's approval, the Government suddenly started backing up on its commitments within the first year of project implementation and at a very advanced procurement stage for the respective consulting services. Moreover, the delays with the establishment of the LTA after the passing of the bill by the Parliament jeopardized some of the technical assistance activates under the MIP to support the establishment, training and capacity building of this new agency. These provide an evidence of the lack of Borrower's commitment in some line Ministries, which affected implementation in a negative manner. In this regard, the Borrower's performance is rated moderately unsatisfactory.

(b) Implementing Agency or Agencies Performance
Rating: Moderately Satisfactory

83. The Ministry of Public Infrastructure, Land Transport and Shipping (MoPILTS) was charged with the overall responsibility of the loan implementation and coordination among the line Ministries (MoREPU, MoENDU, and MoFED) and sector agencies (RDA, CEB, WRU, and WMA). Technical responsibilities over components/sub-components were given to each sector Ministries and agency for activities pertaining to their respective sectors. Policy guidance and overall project oversight was under the responsibility of a Project Plan Committee (PPC) chaired by the MoPILTS with representatives from MoREPU, MoFED, RDA, MoENDU, and any other agencies.

84. The delay in appointing or hiring a Project Manager and designation of an FM specialist, and weak implementation capacity of the PPC and MoPILTS resulted in the delayed disbursements and uncoordinated communication among implementing agencies on procurement related matters during the first year of implementation. While some of the consultancies were already contracted and ongoing, namely Renewable Energy Study, Water Resources Master Plan, and a few were about to start, no disbursement requests were being received, though some consulting firms were already paid with client's own funds. The PPC charged with the task for FM under the project and submission of disbursement requests, was not following the process and making submissions for disbursements to the Bank. There were also consistent delays in updating the Procurement Plan by the implementing agencies in a timely manner.

85. This fragmented and dispersed across various agencies implementation arrangement was lacking leadership and coordination from a designated Project Coordinator or Project Manager, rather than a committee of several individuals with no clearly defined accountability

roles. The implementation for the project lacked clearly defined roles and accountability structure. Though the appointment of a Program Manager for the project was stipulated through a covenant in the Loan Agreement, and reminded numerous times by the Bank team, the MoPILTS found it difficult to fulfil this requirement. Finally, the Bank team reached an agreement to appoint one of the MoFED's employees, who was part of the PPC already, as a Program Manager responsible for following up with the Bank team. Similarly, FM responsibilities were accepted initially by a consultant employed by the MoFED, who was responsible for ensuring disbursement requests were forwarded to the Bank timely. This latter arrangement improved matters, with further improvement coming when the Auditor General's office took over responsibilities for FM arrangements.

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

86. The overall Borrower's Performance is rated moderately unsatisfactory based on the following assessment: (i) the moderately satisfactory rating for the implementing agency performance due to slow progress in appointing the project manager and designated financial management specialist, which led to disbursement delays, and (ii) the moderately unsatisfactory rating for government's performance due to its failure to commit to priorities agreed at project preparation.

6. Lessons Learned

87. ***Understanding the political economy risk and accounting for it in the project design helps to move forward with implementation despite difficult circumstances and changing government priorities.*** Government ownership and political economy can pose critical risks, but the task teams must be able to move forward with implementation despite difficult circumstances and changing government priorities. Ensuring the buy-in of sector ministries and agencies early in preparation stage besides securing the high level support is essential for smooth implementation, especially in multi-stakeholder projects. Basing the design of components on economic and rational criteria rather than politically driven decisions could reduce the likely opposition to the project investments in times of political change. Other ways of holding the Client committed might be ensuring that a project is included in a long-term national strategy or plan, to which the government is committed regardless of change in administration. Therefore, lack of commitment from the government or shifts in priorities due to political change should not preclude having a successful project.

88. ***The teams must utilize restructuring when needed to simultaneously advance a project and to ensure alignment of outcomes, the Results Framework, and the PDO.*** Restructuring project indicators in a timely manner is likely to increase the chances of achieving intended project results, allow a more robust assessment of project outcomes attributable to the project. Adjusting results indicators to reflect the activities and sub-components cancelled or adjusted by the Borrower would ensure that the relevance of the project design and indicators remains high and the outcome ratings are not penalized. Otherwise, drawing causal linkages between the components and the results framework would turn an initially well-designed project into a poorly designed one.

89. ***Encouraging the Borrowers to conclude the staffing arrangements for project implementation before the Board approval and confirming the FM arrangements on flow of funds may reduce the implementation and disbursement delays.*** In the present of multi-sectoral and multi-agency implementation arrangements, the Borrowers should be encouraged

to confirm a designated project management and FM staff prior to making the project effective. This could guarantee a smoother implementation and prevent disbursement delays. However, proper training in financial management of the Project Manager should be provided in advance and clearly defined roles and accountabilities should be communicated. Any possibility for having more simplified implementation arrangements with at least less than four agencies would make such a project more manageable and implementable. Spreading the implementation and responsibility for fiduciary management of the project across multiple agencies too thin is most likely to stall the progress and even fail.

90. ***Designing performance based contract pilots for routine maintenance requires an advance and careful preparation and consideration of relevant technical knowledge and best practices in order to ensure adequate design and allocation of realistic funding and timeline.*** Before implementing a pilot PBC contract, a certain amount of time is required for a road agency to prepare appropriate engineering tools such as service levels, performance indicators, and engineering standards necessary for road maintenance since these advanced techniques should be applied taking into account local characteristics such as geography and other characteristics.

91. ***Readiness of the bidding documents for large road works before Board approval may reduce the likelihood of significant cost overruns.*** In road projects there are many unexpected factors potentially affecting costs, making it hard to avoid cost overruns. However, the magnitude of the cost increases may be substantially reduced (within a 10 percent contingency allowed) if more precise and realistic bills of quantities within the bidding documents are prepared early to provide more accurate and realistic cost estimates to the project design.

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

(a) Borrower/implementing agencies

92. There were not comments or issues raised by the Borrower or implementing agency. The Borrower's ICR is presented in Annex 7.

(b) Cofinanciers

N/A

(c) Other partners and stakeholders
(e.g. NGOs/private sector/civil society)

N/A

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Revised Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Component 1: Road Investments	**36.10**	**44.00**	**47.56**	**131%**
Upgrading of Belle Rive - Quartier Militaire Road: works	21.60	32.50	33.88	157%
Upgrading of Belle Rive - Quartier Militaire Road: land acquisition	1.10	1.10	1.10	100%
Periodic Maintenance	10.40	10.40	12.58	121%
PBCs	3.00	0.00	0.00	0%
Component 2: Technical Assistance and Institutional Development in the Infrastructure sector	**14.87**	**6.975**	**1.115**	**8%**
Total Project Costs	**50.975**	**50.975**	**48.675**	**95%**
Front-end fee IBRD	0.125	0.125	0.125	
Total Financing Required	**51.10**	**51.10**	**48.80**	**95%**

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Revised Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower	Own source	1.10	1.10	1.10	100%
International Bank for Reconstruction and Development	Loan	50.00	50.00	47.70	95%
TOTAL FINANCING		**51.10**	**51.10**	**48.80**	**95%**

Annex 2. Outputs by Component

Project Outputs	Implementing Agency in charge	Status of Implementation
COMPONENT 1: ROAD INVESTMENTS		
Sub-component 1.1: Upgrading of Belle Rive – Quartier Militaire Road		
• Rehabilitation and widening from 5.5-6.5 meters to 7.5 meters, with a 1.5 meter shoulder on each side, of existing 12.1 km road between Belle Rive and Quartier Militaire. Additional improvements: - Construction of 3 roundabouts along the road section; - Construction of 2 junctions along the road section; and - Construction of one 12 meter underpass bridge and one 12 meter concrete bridge.	RDA	Completed
• Construction of 1.6 km long bypass in Veletta village.	RDA	Completed
• Csontruction of 3.0 km long bypass in Quartier Militaire village.	RDA	Completed
Sub-component 1.2: Periodic Maintenance		
• Pavement repair, bituminous overlay, and upgrading of roundabouts, traffic islands and footpaths on Terre Rouge – Quay D section on M2 road corridor (5 km of dual carriageway).	RDA	Completed
• Pavement repair, bituminous overlay, reinstatement of hard shoulders, and construction of new lined drains on the Nouvelle France – La Vigie road section on M1 highway (8 km of single carriageway);	RDA	Completed
• Pavement repair, bituminous overlay, rehabilitation of roundabouts and traffic islands, and repair of masonry and earth drains on parts of the Pamplemousses-Grand Baie road section on A13 (4 km of single carriageway).	RDA	Completed
Sub-component 1.3: Performance-Based Routine Maintenance Contracts (PBCs)		
• 4 PBC contracts: three for highway sections (Terre Rouge – Quay D section - 5 km, Nouvelle France – La Vigie section - 8 km, and Pamplemousses-Grand Baie section - 4 km), and the fourth for a lower-volume road section, potentially B20 (Old Flacq Road).	RDA	Not implemented *Reason:* Dropped due to insufficiently allocated financing for this type of contracts and inadequately designed and non-implementable sub-component. PBCs are under government's consideration to be undertaken with domestic resources.
COMPONENT 2: TECHNICAL ASSISTANCE AND INSTITUTIONAL DEVELOPMENT IN THE INFRASTRUCTURE SECTOR		
Sub-component 2.1: Support to the preparation of the Public Sector Investment Program (PSIP)		

• 2.1.1 Technical assistance and capacity building to assist in the elaboration and finalization of the PSIP.	MoFED (formerly MoFEE)	Not implemented *Reason:* has been undertaken and implemented with GoM's own funds.
Sub-component 2.2: Transport sector		
• 2.2.1 Assistance for the setting up of the Land Transport Authority (LTA) - Study to plan and design LTA structure; and - Establishment and operationalization of LTA.	MoPILTS	Completed *Note:* The LTA had been established by Cabinet Order, but was not yet fully operational by the project closing.
• 2.2.2 Assistance to the agencies in charge of Land Transport	RDA, MoPILTS (LTS)	Not implemented *Reason*: requested to be dropped by the Borrower and be included in the next project.
• 2.2.3 Assistance strictly related to the creation and operationalization of the Land Transport Authority	MoPILTS (LTS)	Not implemented under the project *Reason*: due to delays in decision of the Cabinet of Ministers to establish LTA, LTA was not yet operational by the project closing, thus this assistance could not be utilized.
• 2.2.4 Supervision and Monitoring of the Belle Rive- Quartier - Militaire upgrading works contract	RDA	Completed by RDA's internal resources (supervision carried out in-house by the RDA employees).
• 2.2.5 Other Transport Studies in the Urban and Road Transport sub-sectors, including the BRT and Bus Reform Implementation Study.	RDA, MoPILTS (LTS)	Partially completed *Note*: Out of 4 planned studies, only two were completed: (i) Study on Pedestrian Underpass in Place d'Armes in Port Louis and (ii) Study on Establishment of RMS. The BRT and Bus Reform Study was dropped at the Borrower's request due to change in political priorities. The GoM decided to construct Light Rail Transit instead, funded from other sources.
• 2.2.6 Feasibility, Detailed Design, EIAs, Tender Documents and whenever needed, Resettlement Action Plans	RDA, MoPILTS (LTS), MoFED	Partially completed *Note*: Out of 2 planned studies, only two were completed, one with GoM's funds and the other under the project: (i) Feasibility Study for Rodrigues Airport was completed with government's own funds by MoFED, and (ii) Feasibility study for the B6/East-West Connector.
Sub-component 2.3: Water		
• 2.3.1 Master Plan for the Water Resources, Rationalization of Water Rights, Capacity Building	MoREPU (in coordination with WMA and WRU)	Completed

• 2.3.2 Feasibility studies and detailed designs for future investment projects in water sector, such as: - South Mauritius Water Supply project; - North Water Supply Project: increasing in storage capacity of the La Nicoliere reservoir in the North; and - Construction of Calebasses dam.	MoREPU (in coordination with WMA and WRU)	Not implemented under the project *Reason:* Feasibility Study for the South Mauritius Water Supply project was completed with government's own funds. Studies for North Water Supply and Calebasses dam projects were dropped due to shift in sector priorities in accordance with the Water Sector Master Plan prepared under 2.3.1.
• 2.3.3 Reorganization of Pollution Control Laboratory	MoREPU (in coordination with WMA and WRU)	Not implemented *Reason:* Dropped at Borrower's request due to shift in sector priorities: there was no longer a need for this Laboratory, since similar labs were already in place in Central Water Authority and Wastewater Management Unit, and were also upgraded by the government.
• 2.3.4 Update of Study on Mauritius Drainage System	MoREPU, NDU	Completed
2.4: Wastewater		
2.4.1 Feasibility and detailed engineering studies for the Baie de Tombeau Sewerage Project Phase III	MoREPU (in coordination with WMA and WRU)	Completed (including the design of a pumping station)
2.5: Energy		
• 2.5.1 Renewable Energy Development Study	MoREPU	Incomplete *Reason:* Consultant's contract was terminated in the middle and partially paid; the study is now planned to be completed under the TA funded by the French Development Agency (AFD)
• Capacity Building support in energy sector	MoREPU	Not implemented under the project *Reason:* the Borrower made a decision not use loan funds for training, but rather finance it with its own resources.

Annex 3. Economic and Financial Analysis

1. This annex summarizes the ex-post economic evaluation of the Project's road upgrading sub-component (Upgrading of B6 Belle Rive - Quartier Militaire Road), which accounts for 67 percent of the Project's investment. The evaluation followed the same approach of the ex-ante economic analysis, i.e. estimating road users' surplus using the Highway Development and Management Model (HDM-4). Concretely, the evaluation calculated benefits to road users (as compared to a without-project scenario) and costs of the investments in road works, and assessed streams of a net economic benefit to a society. Based on the analysis, the net present value (NPV), at a 10 percent discount rate, and the related internal rate of return (IRR) of the investments over 20 years are respectively estimated as MUR 179 million and 11.7 percent.

2. Though the result demonstrated that the Project remains economically feasible, the values of NPV and IRR are much smaller than those in the feasibility study. This is mainly because of (i) increase in civil works cost by 46 percent and (ii) 27 percent lower traffic volume in 2012 compared to the projected value at appraisal.

Project Objectives and Main Benefits

3. The expected outcome of the proposed road works is to reduce road transport costs. This rehabilitated section is an important link for alleviating traffic congestion and improving road safety between highly populated areas along Motorway 2 (M2) and the eastern region. The construction of the bypasses and the improvement of the road has led to a marked reduction in both travel time between Wooton and Quartiers Militaire from 10 minutes to five minutes, and reduction in fatal and serious accidents decreasing from 11 to 1.

Main Assumptions and Methodology

4. The evaluation followed the same methodology of the ex-ante economic analysis assessing road users' benefits and costs of the investments. The main benefits stemming from the investments on the road upgrading are the savings for road users on vehicle operating costs and passenger/freight time. Additional benefits, which have not been quantified, include the reduction of accidents (which will lead to the reduction of economic loss of deaths and injuries as well as vehicle damages), reduction of vehicle emissions such as GHG, and the improvement of driving and riding comfort. The costs to the road agency are the works costs. The benefits and costs of the works are estimated using the Highway Development and Management Model Version 4 (HDM-4), which can simulate pavement deterioration over time, vehicle operation conditions and costs for multiple road design and maintenance alternatives.

Road Section and Traffic Volume

5. The section of the study is the Quartier Militaire Road (B6) from Belle Rive to Quartier Militaire with the original length of 9.3 km. The Project included the construction of the two new bypasses over a total distance of 4.5 km, which extended the section length to 12 km after the works.

6. The traffic volumes (Average Annual Daily Traffic) and the annual traffic growth rate are exhibited in the following table. The base year of the traffic data is 2012 when the RDA conducted the nation-wide traffic counting survey. The volume of each vehicle type and traffic

growth rates are based on the assumption used for the study on asset management strategy[3]. The study assumes that 50 percent of the traffic go through the newly constructed bypass and the rest 50 percent uses the existing routes.

Table 3.1: Traffic Volumes in 2012 and Traffic Growth Rate

Item	Car	Pickup/ Van	Bus	Truck	Multi-axle Truck	Total
Traffic volume in the base year (2012) [4].	6,322	1,851	661	500	141	9,476
Annual traffic growth rate						
2011-2015	5.1%	5.1%	5.1%	2.0%	2.0%	
2016-2025	4.0%	4.0%	4.0%	2.0%	2.0%	
2026-2035	3.0%	3.0%	3.0%	2.0%	2.0%	

Methodology on Estimating Economic Benefits

7. The economic benefits of road rehabilitation and upgrading works are twofold: (i) reduction in vehicle operating costs and (ii) saving in travel time. The project contributes to increase traffic speed as well as to improve riding comfort. Accordingly, the economic benefits from the works are induced from the reduction of the following transport costs: (i) vehicle operating costs, mainly, reduction in consumption of fuels and reduction of damage to vehicles' bodies and parts due to vibration during drive, and (ii) reduction in travel time of passengers and freights, which is converted into monetary terms and added as economic benefits.

8. In the simulation model of the HDM4, these benefits are calculated as the difference in transport costs between a with-project scenario (alternative case) and a without-project scenario (base case). These two scenarios include the following works.

With-project Scenario

9. With the project, the following rehabilitation and maintenance activities are assumed in the model:

a. Rehabilitation in Year 1 and 2 (2012-2013): The pavement rehabilitation and construction of the new bypass are executed. The new bypass will extend the road length from 9.3km to 12km. The evolution of the International Roughness Index (IRI), once works have been executed, has been simulated by the model.

b. Yearly routine maintenance: Road maintenance activities, conducted on a yearly basis include: roadside cleaning, maintenance of road facilities, and normal road patrol. Routine maintenance costs are assumed at the same level for all road types. Along with the maintenance, a regular patching will be carried out if the pavement surface is damaged before reaching the roughness threshold of the future rehabilitation.

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[3] Republic of Mauritius / World Bank, Design of an Asset Management Strategy and Preparation of Output and Performance Based Maintenance Contracts for the Road Development Authority In Mauritius: Phase I, Asset Management Strategy, March 2013

[4] Since the traffic volumes were counted at the two locations on the project section, the average values were adopted for this evaluation.

Without-project or Base Scenario

10. In the base scenario, the upgrading works in Year 1 and 2 are not executed and only yearly routine maintenance will be implemented over the entire study period. The maintenance will have the same type of interventions and costs as the with-project scenario.

Road Works and Pavement Conditions

11. The road works consisted of the rehabilitation and improvement of 7.5 km of existing road from Belle Rive to Quartier Militaire and the construction of the two new bypasses with a total length of 4.5 km. The following table provides the major parameters of road conditions in the section before and after the works, which are largely based on the feasibility study done by the RDA.

Table: Parameters for Road Conditions

	Before Works	After Works
Environment		
· Rainfall [m/ month]	0.282	0.282
· Altitude [m]	520	520
Geometry		
· Raise and Fall [m/km]	12.00	12.00
· Horizontal curvature [deg/km]	15	15
· Road width [m]	6.9	7.4
· Superelevation [%]	2.5	2.5
· Shoulder Width [m]	0.5	1.5
Surface		
· Surface type :	Asphaltic concrete	Asphaltic concrete
· Number of surfacing layers	2	2
· Thickness of surfacing layers [mm]	50	50
Base/Subgrade		
· Base type : granular	Granular	Bituminous
· Subgrade California Bearing Ratio	5	6
· Thickness of base layers [mm]	480	480
Strength Parameters		
· Benkelman Beam Deflection	1.26	0.4
Condition		
· Area of cracks [%]	20	0
· Area ravelled [%]	0	0
· Area of potholes [%]	10	0
· Mean rut depth [mm]	35	0
· Standard deviation of rut depth [mm]	4	0
· Roughness [IRI]	7	2.5
· Free Flow Speed [km/h]	50	100
History		
· Preventive treatment age [years]	5	-
· Surfacing age [years]	5	-
· Construction age [years]	15	-

Road Work Costs

12. Upgrading and rehabilitation work: The economic costs of road upgrading works were MUR 847 million excluding taxes in the 2008 price. The actual payments for the road works were MUR 1,084 million including tax in total. The economic costs were obtained by excluding the tax of 13 percent. To make the results comparable to the values at the feasibility study, the economic costs were converted into the 2008 price using the Construction Price Index by the

Statistics Mauritius (Statistics department) and assuming a half of the payments made in 2012 and the remaining in 2013.

13. Maintenance works: the costs of routine maintenance works follow the value in the feasibility study: MUR 725,000 per km per year.

Vehicle Operating Costs

14. Five types of vehicles were studied in this evaluation: (i) car, (ii) pickup, (iii) bus, (iii) medium truck, and (iv) multi-axle truck. The following table presents typical road user unit costs by each type of vehicles. The parameters are based on the feasibility study of the project. The costs are presented in the 2008 price excluding tax.

Table: Parameters for Vehicle Operating Costs

Vehicle Characteristics	Car	Pickup	Bus	Truck	Multi-axle Truck
Number of axles	2	2	2	2	3
Number of wheels	4	4	6	6	10
Average Operating Weight (ton)	1.2	3.5	10.0	12.0	22.0
Economic Costs in 2008 price					
New Vehicle Cost (MUR)	350,000	375,000	1,600,000	640,000	1,380,000
New Tire Cost (MUR)	1,300	1,000	1,600	1,600	3,100
Crew wage (MUR/hour)	-	25	70	70	70
Time Costs for Working Passenger (MUR/hour)	50	50	50	50	50
Time Costs for Non-Working Passenger (MUR/hour)	25	20	20	20	20
Cargo Delay Cost per Vehicle Hour Delay (MUR/hour)					
Labor cost of maintenance (MUR/hour)	150	150	150	150	150
Interest Rate (%)	10%	10%	10%	10%	10%
Gasoline (MUR/Litter)	40	40	40	40	40
Diesel (MUR/Litter)	40	40	40	40	40
Lubrication Oil (MUR/Litter)	60	60	60	60	60
Vehicle Use					
Annual Driven (km/year)	15,000	20,000	45,000	25,000	20,000
Hours Annual Driven	750	2,400	3,000	2,400	2,000
Service Life	10	10	7	10	10
Number of Passengers (including driver)	3.0	3.0	45	3.0	3.0

Results

15. The result demonstrated that the Project remains economically feasible. Based on the above methodology and parameters, the total economic costs of road works and vehicle operations are estimated for both scenarios during the period of 2012-2031, and the economic benefits are calculated as a saving of the costs. As a result, the present values of the flow of net economic benefits (NPV) generated by the Project over 20 years are estimated at MUR 178 million at a 10 percent discount rate, and its economic internal rate of return (IRI) is estimated at 11.7 percent.

16. However, the values of both NPV and IRI are very low compared to those estimated by the feasibility study. The one reason for this is a significant increase in the civil work costs. While the original estimation at the feasibility study was MUR 644 million (excluding tax), the

actual costs was MUR 943 million (excluding tax) or 46 percent higher. Even after inflation adjustments, the costs are MUR 847 million, which is still 32 percent above the original value.

17. The other factor is that the actual traffic growth was much lower than the projection. At appraisal, the traffic volume on the B6 road was predicted at 12,067 vehicle/day in 2012, but in fact, the traffic counting survey in 2012 found only 9,476 vehicle/day or 27 percent lower than the estimated value.

18. Furthermore, the ex-ante economic evaluation did not take into consideration the fact that the bypass would extend the road length after the works. The road length was extended by 30 percent after the conclusion of the new bypasses (from 9.3 km to 12 km), which proportionally increased road user costs and reduced the net benefits of the Project. Since the ex-post evaluation assumes this adverse impact, the results became relatively low compared to the ex-ante study.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Pierre Graftieaux	Program Leader	EACNF	Task Team Leader
Noreen Beg	Senior Environmental Specialist	GENDR	Environmental and Social Safeguards
Abdelmoula M. Ghzala	Consultant	GEEDR	Lead Infrastructure Specialist
Alain Labeau	Consultant	GTIDR	Program Coordinator
Farida Khan	Operations Analyst	GTIDR	Operations
Jorge M. Rebelo	Consultant	GTIDR	Lead Transport Specialist
Lisa Lui	Lead Counsel	LEGLE	Legal
Lova Niaina Ravaoarimino	Senior Procurement Specialist	GGODR	Procurement
Ntombie Z. Siwale	Senior Program Assistant	GTIDR	Team Assistant
Sylvain Auguste Rambeloson	Senior Procurement Specialist	GGODR	Procurement
Vickram Cuttaree	Senior Infrastructure Economist	GTIDR	Infrastructure Economist
Supervision/ICR			
Landy Franck Andrianjatovo	Driver	AFMMG	Driver
Felly Akiiki Kaboyo	Operations Analyst	GPSOS	Operations
Khoudijah Bibi Maudarbocus-Boodoo	Private Sector Development Specialist	GTCDR	Private Sector Development
Mariella Beugue	Program Assistant	AFMMU	Team Assistant
Noreen Beg	Senior Environmental Specialist	GENDR	Environmental and Social Safeguards
Svetlana Khvostova	Natural Resource Management Specialist	GENDR	Environmental Safeguards
Patrick Kabuya	Senior Financial Management Spec.	GGODR	Financial Management
Patrice Joachim Nirina Rakotoniaina	Senior Municipal Engineer	GSURR	Engineer
Pierre Graftieaux	Program Leader	EACNF	Task Team Leader
Reynold Duncan	Operations Adviser	SACPK	Operations
Richard Martin Humphreys	Lead Transport Economist	GTIDR	Task Team Leader
Sevara Melibaeva	Transport Economist	GTIDR	ICR Author
Sylvain Auguste Rambeloson	Senior Procurement Specialist	GGODR	Procurement
Lova Niaina Ravaoarimino	Procurement Specialist	GGODR	Procurement
Damon C. Luciano	Temporary	GTIDR	Team Assistant

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY05	3.9	49.50
FY06	15.85	103.56
FY07	12.01	93.19
FY08	12.21	68.22
Total:		314.47
Supervision/ICR		
FY09	29.93	131,185.34
FY10	12.19	67,923.66
FY11	14.74	84,634.02
FY12	14.44	94,492.06
FY13	11.18	75,784.35
FY14	8.82	53,772.49
FY15	12.34	72,543.56
Total:	103.64	588,335.50

Annex 5. Beneficiary Survey Results

N/A

Annex 6. Stakeholder Workshop Report and Results

N/A

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

Borrowers' Contribution to Implementation Completion Report (RDA's Submission)

The support of the World Bank was enlisted by the Government of Mauritius through a sector Investment and Maintenance Loan in an amount of USD 50 million from IBRD resources. The specific objective was to allow the GoM to improve the national infrastructure with emphasis on the transport, energy and water sectors.

The aim of the project was to contribute to:

(i) improve the condition of the road network through road upgrading, periodic maintenance and pilot performance-based routine maintenance contracts,

(ii) prepare investments in the urban transport sector to alleviate congestion between Curepipe and Port-Louis and in the road sector to keep upgrading the existing network,

(iii) help the government in defining a ten-year Public Sector Investment Program,

(iv) assist in establishing a framework for economically viable clean energy development, and thereby increase the proportion of renewable energy in the energy mix,

(v) identify and prepare key investments in the water and wastewater sectors so as to increase water production in a sustainable way and to augment the connection to public sewerage networks from 25 percent of households as of now to 50 percent by 2012, and

(vi) provide technical assistance and training to the line Ministries and agencies.

The present report deals with the transport related components of the Mauritius Infrastructure Project more specifically roads.

The components are detailed below:

Component 1:

1. **Upgrading of Belle Rive - Quartier Militaire Road (USD22.7 out of which USD1.1 million has been financed by the Borrower to acquire the land needed for the widening of the road right-of-way)** a 5.5 to 6.5 metre wide road, the main link between the East and the West of Mauritius, to be fully or partially rehabilitated and widened to up to 7.5 metres under the proposed project, to alleviate congestion and above all to improve road safety on the axis, largely used by trucks and buses. Works include slight modifications to the alignment to smoothen the sharpest curves, the construction of bypasses to Valetta and Quartier Militaire villages and the widening of culverts in areas that get partially flooded during heavy rains.

The achievement of the Project's development objective would be assessed through the following key indicators:

- travel times (minutes) and
- number of accidents per year on Quartier Militaire Road.

2. **Periodic Maintenance (USD10.4 million)** for three highway sections, which had not been treated since their construction in the late 70's and the pavement of which presented clear signs of fatigue:

    - Terre Rouge – Quay D on M2 (5 km of dual carriageway),
    - Nouvelle France – La Vigie on M1 (8 km of single carriageway) and
    - Parts of Pamplemousses-Grand Baie on A13 (4 km of single carriageway).

3. **Performance-based routine maintenance contracts (USD3 million)** for the three highway sections mentioned above and another road, possibly B20 (Old Flacq Road) to test the concept on lower-volume roads. The objective of this sub-component is to determine whether performance-based contracts, once adapted to the local context, are the right means to overcome a backlog of deferred maintenance on key sections of Mauritius primary network.

Component 2

2.2: Transport sector (USD5.175 million):

- 2.2.4 Supervision and Monitoring of the Quartier Militaire Road upgrading works contract (USD425,000): Supervision of such works will not be done in-house by the Road Development Authority but by a consulting firm to be contracted under the loan.

- 2.2.5 Other transport studies, both in the urban transport and road transport sub-sectors (USD2,300,000)

    (v) analysis of tolling options for road projects such as the Port-Louis by-pass.
    (vi) technical assistance for the setting up and purchase of a Road Management System
    (vii) consulting services for the design and evaluation of Performance-Based Contracts, etc.

- 2.2.6 Feasibility, Detailed Design, EIAs, Tender Documents and whenever needed, Resettlement Action Plans (USD1,150,000) for:
(i) roads such as, but not necessarily limited to, Old Flacq Road (from its junction with A2 at Khoyratty through d'Epinay and Camp Créole to its junction with A2 at Grande Rosalie), a 6-km road segment / Terre Rouge – Triolet – Grand Baie Road (14 km from its junction with M2 at Terre Rouge through Saint Joseph, Arsenal, Solitude, Triolet, Chemin Vingt Pieds to its junction with B13 at Grand Baie) / Pailles Branch Road (2.4 km from its junction with M1 at Grewals Underpass through Pailles to its junction with A1 at Grand River North West / B6 to assess the need (and optimal timing) for a dual carriageway, (ii) round-about replacement projects, road extension program, pavement projects, and (iii) Rodrigues airport (construction of a new runway of 2,100m).

The following table lists all road projects which have been undertaken under the MIP giving all relevant details in summarised form. This is followed by details on each project:

Reference Number	1	2.1	2.2	2.3	3	CS6	CS6	CS8	CS8
	B6 Upgrading	M2 Rehabilitation	M1 Rehabilitation	A13 Rehabilitation	PBC	RMS	PBC	EWC (Study)	Pedestrian Underpass
Date of no objection:	06-Apr-11	29-Jul-10	10-Jan-11	25-Jan-11		09-Aug-09		22-Mar-11	08-Jul-11
Date of award of contract:	11-Apr-11	02-Aug-10	11-Jan-11	04-Feb-11		11-Aug-09		25-Mar-11	12-Jul-11
Contract amount: MUR	805,829,830.10	103,591,660.00	145,965,047.00	73,767,116.30		11,138,100.00 *		11,061,701.60 *	6,910,000.00
Local Taxes (VAT)	120,874,474.52	15,538,749.00	21,894,757.05	11,065,067.45	0.00	0.00	0.00	1,659,255.24	1,036,500.00
Sub Total with taxes:	926,704,304.62	119,130,409.00	167,859,804.05	84,832,183.75	0.00	11,138,100.00	0.00	12,720,956.84	7,946,500.00
Variations :	165,864,708.25	0.00	37,205,124.65	0.00	0.00	2,662,350.00	0.00	0.00	0.00
Revised Amount: MUR	1,092,569,012.87	119,130,409.00	205,064,928.70	84,832,183.75	0.00	13,800,450.00	0.00	12,720,956.84	7,946,500.00
Equivalent in USD: (Rs 32.5/USD)	33,617,508.09	3,665,551.05	6,309,690.11	2,610,221.04	0.00	424,629.23	0.00	391,414.06	244,507.69
Final Payment: MUR	1,083,595,395.12	119,127,254.29	202,723,650.74	70,844,459.67		13,450,603.52		12,720,956.84	3,501,750.00
Equivalent in USD: (Rs 32.5/USD)	33,341,396.77	3,665,453.98	6,237,650.79	2,179,829.53	0.00	413,864.72	0.00	391,414.06	107,746.15
Initial Amount in MIP (USD):	21,600,000.00	4,640,000.00	3,330,000.00	2,430,000.00	3,000,000.00	2,300,000.00	1,150,000.00		
Consultant:	Road Development Authority	Road Development Authority	Road Development Authority	Road Development Authority		TRL in association with Roughton International		Frischmann Prabhu (India) Pvt Ltd.	Messrs Arup Sigma Ltd in association with Architects Studio Ltd
Contractor:	SinoHydro Corporation Limited	Gamma	COLAS(Maurice) Itee	General Construction Co Ltd					
Address:	No 22, Chegongzhuang West Road Haidian District Beijing 100048 China	Chapman Hill Coromandel Mauritius	Richelieu Branch Road Petite Riviere Mauritius	PO Box 503 Plaine Lauzun Port Louis Mauritius		Crawthorne House Nine Mile Ride Wokingham Berkshire RG 40 3GA United Kingdom		315, Balgovind Wadi, New Prabhadevi Road, Prabhadevi, Mumbai 400 025, India	19 Church Street, Port Louis, Mauritius
Duration:	18 months	10 months	10 months	6 months		240 calendar days		8 months	4 months excluding Supervision
Date of Completion:	25-Oct-13	18-Aug-11	26-Jul-11	15-Oct-11		Dec -10		Mar -12	Oct -12

Status:	In defects liability period. Snags completed.	Project completed	Project completed	Project completed.		Assignment completed and Reports submitted by Consultant as per contract.		Final Feasibility Report submitted	Final Feasibility Report submitted

*Foreign currency converted to MUR

20 Oct 2014

1. Upgrading of Quartier Militaire Road (B6)-Phase II from Belle Rive to Quartier Militaire

- The works contract was signed on the **6th June 2011** between the Road Development Authority and Sinohydro Corporation Limited from the People Republic of China for a contract amount of **Rs 926,704,304.61** inclusive VAT.

- The work consists of the rehabilitation and improvement of 7.5 kms of existing road from Belle Rive to Quartier Militaire and construction of two new bypasses over a total distance of 4.5 kms.

- The order to start work was issued on the **18th August 2011** and the contractual completion date was on the **7th February 2013**. (540 calendar days).

The contract period was extended due to delays and additional works such as:

<u>Delays</u>

- Land Acquisition issues.
- Delay in obtaining approval from authorities such as Forestry Department, Central Electricity Board, etc.
- Unforeseen site conditions (Muddy section along Valetta Bypass).
- Adverse climatic conditions (torrential Rain/Cyclones).

<u>Additional Works</u>

- Revised scope of work for street lighting.
- Realignment of L'Esperance Road (B51).
- Demolition and reconstruction of blockwall in villages (Quartier Militaire and Valetta).
- Provision of footpath and green space on Valetta lake.

The works were substantially completed on **25th October 2013** with an extension of time of 260 days.

The Final contract amount including price adjustment and cost associated with additional works and delays is **Rs1,092,40.334.74** inclusive of VAT.

<u>Key Indicators:</u>

(i) The average travel time during peak hours from Wooton to Quartier Militaire has been cut by half, from 10 to 5 minutes. The average travel speed is now 80 km/h compared to 42 Km/h previously.

(ii) The number of accidents per year has decreased as follows:

	2005-2010	2010-2014 (to date)
Slight	85	8
Serious	11	1
Fatal	8	0

The last column includes the contract period.

2. Terre Rouge – Quay D on M2

- The works contract was awarded on the **02nd August 2010** to **Gamma** for a contract amount of **Rs 119,130,409** inclusive VAT.

- The works consisted of the upgrading of the Motorway M2 from Terre Rouge Roundabout to Quay D Round About over about 4.0 Km. The main objective of the project was to increase the structural stability of the road deteriorated with the growth of traffic and to maintain its level of service as well as increase its riding quality and enhance safety of road users. Therefore the works included pavement repair, bituminous overlay, upgrading of roundabouts, traffic islands and footpaths, cleaning of drains and miscellaneous works.

- The order to start work was issued on **21st August 2010** and the contractual completion date was on the **2nd June 2011**.

The contract period was extended due to delays and additional works such as:

Delays and Additional Works

- Provision of additional guardrails and openings in the central reservations requested by the Police and the Traffic Management and Road Safety Unit. This called for additional time for ordering and placing of guardrails.

The works were substantially completed on **18th August 2011**.

The final contract amount including cost associated with additional works is **Rs 119,127,254.29** inclusive of VAT.

3. Nouvelle France – La Vigie on M1

- The works contract was awarded on the **17th March 2011** to **Colas (Maurice) Ltee** for a contract amount of **Rs 167,859,804.05** inclusive VAT.

- The works consisted of the upgrading of the Motorway M1 from Nouvelle France Roundabout to La Vigie Round About over about 8.2 Km. The Northbound carriageway of Motorway M1 from Nouvelle France Roundabout to La Vigie Roundabout was in a very poor state. The carriageway was subjected to several types of failures like pot holes, cracks, localized depressions and settlements. These defects were mostly developed due to inadequate surface drainage system all along the carriageway. Rehabilitation of that part of carriageway was urgently needed to prevent further deterioration of the road surface. Therefore the works included pavement repair, bituminous overlay, reinstatement of the hard shoulders, construction of new lined drains and miscellaneous works.

- The order to start work was issued on **21st March 2011** and the contractual completion date was on the 14th **January 2012**.

Delays

- No delays were encountered. In fact the project was completed much earlier than scheduled. This was due to the following reasons:

  - To avoid inconveniences to road users, most of the works were executed on a 24 hour basis during weekdays.

  - The stone masonry drain was replaced by slip form concrete drain and

  - The cut and patch and soft spot repairs by an alternative technique of milling.

Additional Works

- During implementation of the project, cores were taken from existing slow lane and they showed a defect of bonding between the corresponding existing bituminous concrete layers thereby causing the upper layer to become loose and eventually crack. These cracks could be seen all along the slow lane and along part of the fast lane. The deflection test carried out on the existing asphalt layer showed a rather good result concluding that the base was in good condition. The most economical, suitable and rapid engineering solution was to carry out cut and patch over the full length of the Slow Lane and along part of the Fast Lane.
- The quantities for the item Cut and Patch and Soft Spot repairs have therefore been increased to around 29,000 m^2 that consequently increased the contract amount. The contractor proposed to carry out the repairs works using the milling technique to complete the work within one month.
- This caused an increase to the contract sum from Rs 167,859,804.05 (VAT Incl.) to Rs 205,064,928.70 (VAT Incl.).

The works were substantially completed on **26th July 2011** earlier than contractual completion date.

The final contract amount including cost associated with additional works is **Rs 202,723,650.74** inclusive of VAT.

4. Parts of Pamplemousses-Grand Baie on A13

- The works contract was awarded on the **4th February 2011** to **General Construction Co Ltd** for a contract amount of **Rs 84,832,183.75** inclusive VAT.

- The works consisted of the upgrading of Pamplemousses – Grand Baie Road A(13) from Pamplemousses Roundabout to Mapou Roundabout over 3.8 Km. The main objective of the project was to increase the structural stability of the road deteriorated with the growth of traffic and to maintain its level of service as well as increase its riding quality and enhance safety of road users. Therefore the works included pavement repair, bituminous overlay, rehabilitation of roundabouts and traffic islands, repair of masonry and earth drains and miscellaneous works.

- The order to start work was issued on **18th April 2010** and the contractual completion date was on the **15th October 2011**.

The works were completed on time although there were some disruptions due to inclement weather and milling deeper than expected.

<u>Delays and Additional Works</u>

Further to road safety concerns, given that the A13 in the meantime was converted into a dual carriageway, it was decided to construct a footbridge at Mapou. An additional work was thus entrusted to the Contractor. However, the project was completed within the contractual completion date and without additional cost.

The works were substantially completed on **15th October 2011**.

The final contract amount including cost associated with additional works is **Rs 70,844,459.67** inclusive of VAT.

5. Performance-based routine maintenance contract

The Performance Based Contract was scheduled to be amongst the last components to be implemented under the MIP. However, given that in the meantime, the expenditure for works under the B6 Contract was likely to exceed the allocated funding, it was considered that it would be wiser to reallocate funds from other projects which were not yet implemented and defer the PBC for eventual implementation under another infrastructure project to be funded by World Bank.

6. Projects under Component 2

Of the road related projects to be implemented under component 2, only three projects have been carried out.

i) Supervision and Monitoring of the Quartier Militaire Road upgrading works has been done in-house by the Road Development Authority.

ii) Regarding analysis of tolling options for road projects such as the Port-Louis by-pass, it was considered that since tolling options were already being studied and considered in the PPP Road Decongestion Program, commissioning another study would be pointless and therefore the proposed study was dropped.

iii) As for technical assistance for the setting up and purchase of a Road Management System, the project was launched before signature of the loan agreement and funding was done through retro financing. The required approvals of the Bank were sought and obtained during the procurement process.

iv) On 11th August 2009, a contract was awarded to Messrs TRL Ltd in association with Roughton International for the amount of GBP 206,600 and MUR 808,100 for setting up a Road and Bridge Management System for the RDA. In November 2009, two variations were approved as follows:
   1) the acquisition, calibration and installation of ROMDAS system through TRL for an amount of GBP 19,980 and MUR 44,500.
   2) the Pavement Deflection Surveys using Falling Weight Deflectometer to be carried out by TRL Ltd for an amount of GBP 22,991,82 and MUR 88,900.

   The project was completed in December 2010 with the final version of the RDM – Road Data Manager and all manuals, although the RDA was entrusted the responsibility to complete data survey and entry.

v) Consulting services for the design and evaluation of Performance-Based Contracts, was not carried out for reasons stated under 5 above..

vi) Under Feasibility, Detailed Design, EIAs, Tender Documents and whenever needed, Resettlement Action Plans component, only two projects have been carried out.

   As congestion specially of the Curepipe Port Louis corridor was of particular concern to Government, the other upgrading and rehabilitation projects which were identified during appraisal stage were ignored and due consideration was given to the feasibility study of the East West Connector which was a new project included in the Road Decongestion Program approved by Government. as well as a Pedestrian Underpass at the entrance of Port Louis.

Contract for the Feasibility Study of the East West Connector was awarded on 25th March 2011 to Frischmann Prabhu (India) Pvt Ltd for US Dollars 189,237.50 and MUR 5,428,000.00. The final Feasibility Report was submitted in March 2012.

Contract for the Consultancy Services for the Design and Supervision of a Pedestrian Underpass at Places d'Armes was awarded to Messrs Arup Sigma Ltd in association with Architects Studio Ltd. for the sum of MUR 7,946,500 on 12th July 2011. The final Feasibility Report was submitted in October 2012. As the underpasses were not economically justifiable, the assignment was terminated at feasibility stage.

7. Loan Implementation

Responsibility for loan implementation was assigned to the Ministry of Public Infrastructure, NDU, Land Transport and Shipping.

Policy guidance and overall project oversight was entrusted a Project Plan Committee (PPC) established within MoPILTS and chaired by MoPILTS with representatives from the Ministry of Finance and Economic Development (MoFED), Ministry of Renewable Energy and Public Utilities (MoREPU), the Ministry of Environment and National Development Unit, the Road Development Authority and any other Borrower agency that will be involved in major aspects of the project.

The role of the PPC was to: (i) provide strategic guidance and oversight of the preparation and implementation of the PSIP undertaken by the government under this Project, (ii) approve annual work programs and budgets; (iii) review progress reports prepared by the sector Ministries/agencies, clearing and forwarding periodic reports to IBRD; (iv) proactively address any major problems affecting Project implementation; and (v) review key reports including the audit, mid-term review and implementation completion reports.

The overall coordination and implementation of the project was to be provided by PPC. including the following: (i) preparation/consolidation of the work programs and budgets; (ii) preparation and production of consolidated annual financial statements and quarterly Interim Financial Reports (IFRs) in close collaboration with MoFED and the Treasury Department; (iv) monitoring and evaluation of the various activities supported under the project. The Treasury Department would be in charge of cash management and replenishment applications for the Designated Account.

The RDA would be fully in charge of the technical aspects and responsible for contracting, maintaining records and accounts for all transactions related to them, and preparing financial and other basic information on project management/monitoring as required.

It was also agreed that procurement aspects of the proposed project would be under the responsibility of RDA for road components.

The above arrangements were not quite successful and it took some time to clear aspects of loan management.

On the procurement side, the process was facilitated by the close collaboration extended by the World Bank Staff who responded effectively when solicited.

On the financial management side, there were teething problems but as soon as all stakeholders coordinated their efforts and set down clear demarcation of responsibilities as given below, the situation improved.

For road projects executed by the RDA but financed through Government Loans contracted from external funding agencies namely International Bank for Reconstruction and Development (IBRD), the terms and conditions of the Loans for these road projects as well as the project scope/components are negotiated and finalised by the Ministry of Finance and Economic Development (MOFED)

The loans are contracted by the Government and MOFED is responsible to sign the loan agreements while the RDA is the implementing agency.

In order to ensure effective utilisation of funds, the Ministry of Finance and Economic Development (MOFED) decided that the Accountant General would be responsible for overall loan management and oversight in relation to foreign funded projects (as per Circular No 13 of 2012 dated 17 September 2012 from MOFED) However, the RDA will continue to be fully responsible and accountable for the day to day management of the projects.

Funds for these projects are allocated to the RDA as a Capital Grant through the Programme Based Budget (PBB) under the Programme 323 'Construction and Maintenance of Roads and Bridges'.

The RDA is responsible to effect all payments to the contractors, design and operate adequate controls, keep proper accounting records, prepare and submit all necessary Financial Reports namely:

a) Applications for Loan Disbursements as and when payments are made to contractors to the Project Plan Committee
b) Disbursement Schedules on a quarterly basis
c) Physical Progress Reports on a quarterly basis
d) Interim Financial Reports on a quarterly basis
e) Annual Financial Statements on an annual basis

The Ministry of Finance and Economic Development (MOFED) is responsible to:

a) negotiate and finalise the terms and conditions of funding as well as project scope/components;

b) sign loan agreements after vetting by the Attorney General's Office ;
c) follow up with stakeholders to ensure that the loan becomes effective;
d) ensure that conditionalities agreed between the funding agency and the Implementing Agency are complied with; and
e) table a copy of each signed loan agreement at the National Assembly, and send copies to the Accountant General, Bank of Mauritius and to the Implementing Agency.

The Accountant General is responsible to:

a) prepare and submit withdrawal applications to Funding Agencies and follow up on disbursements;
b) maintain Special Bank Accounts (where applicable) in respect of Project Loans/Grants and, where applicable, make timely transfers to the General Account;
c) apply for reimbursements of funds after examination of expenses incurred by implementing agencies (in respect of expenditure pre-financed from budget) and credit the appropriate government revenue item;
d) ensure that relevant Chart of Accounts (COA) codes are created in the Treasury Accounting System (TAS) to capture transaction data on Project Loans/Grants;
e) determine the most appropriate method of payment to suppliers /contractors/service providers to reduce transaction costs;
f) ensure that implementing agencies submit monthly returns of expenditure incurred on Project Loans/Grants duly reconciled with related TAS reports; and
g) follow up with implementing agencies on discrepancies between returns and TAS records relating to Project Loan/Grant expenditure.

The Accountant General is also responsible to:

a) prepare and submit to the Director of Audit annual financial statements or such other statements as may be required by Funding Agencies for audit purposes;
b) seek explanation from implementing agencies in respect of queries raised by auditors for onward submission to the Director of Audit; and
c) submit to Funding Agencies the audited financial statements within the prescribed time frame.

The RDA is responsible to:

a) After clearance of proposed intervention by MOFED, discuss and finalise project details, including possible legal, policy and institutional reforms as well as conditionalities with development partners with support from MOFED;
b) submit to the Accountant General such information and certified documents as the latter may require for the preparation of withdrawal applications or financial statements;
c) ensure that necessary provisions have been made in the budget in respect of expenditure financed by such loans/grants;

d) comply with terms and conditions of the loan/grant agreement and conditionalities agreed with the funding agency and any instructions by MOFED for the implementation of the project/activity (e.g. procurement procedures for goods and services);
e) ensure the day to day management of projects/activities funded by development partners and keep appropriate records;
f) submit all necessary returns, documents and other information to the Accountant General (Application for disbursements, Interim Financial Reports, Progress Reports, Disbursement Schedules) within the timeframe specified by the latter;
g) ensure that budget provided and allocated to any project/category of expenditure is not exceeded;
h) reconcile expenditure incurred with TAS records and submit returns to the Accountant General in such formats as may be required by the latter;
i) Prepare annual Financial Statements in respect of the Projects in line with applicable accounting framework within time frame.
j) ensure that proper accounting/recording systems and internal controls are in place to support operations; and
k) attend and reply to any audit queries.

		Target Values					Data Collection and Reporting			STATUS
Project Outcome Indicators	**Baseline**	YR1	YR2	YR3	YR4	YR5	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**	
Disbursement ratio of annual capital budgets related to PSIP	43% overall	50%	65%	80%	80%	80%	Annual	Annual budget report	MoPILTS with inputs from MoFEE	
Number (and value) of projects in the infrastructure sector implemented, being implemented, or ready for implementation as defined in the PSIP	0	0					Annual	PSIP progress report	MoPILTS	
							Annual	Road Surveys	RDA	Achieved
Travel times (minutes) Number of accidents per year on Quartier Militaire Road.	10 11 (yearly average)	11	11.5	5.5	5.5	5.5				
Intermediate Outcome Indicators										
Number of km upgraded as per defined standards on targeted roads.	0	0	0	7.5	7.5	7.5	Annual	RDA activity report	MoPILTS through RDA	Achieved
Number of km maintained as per defined standards on targeted roads annually	0	0	0	17	17	17				Achieved
Number of Performance Based contracts being implemented for routine maintenance.	0	0	4	4	4	4				Not yet

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

N/A

Annex 9. List of Supporting Documents

1. The World Bank (2009) *Project Appraisal Document on a Proposed Loan in the Amount of US$50 million to the Republic of Mauritius for a Infrastructure Project*, Report No: 47065-MU, July.

2. Loan Agreement between Republic of Mauritius and International Bank for Reconstruction and Development, dated December 3, 2009, Loan Number 7734-MU.

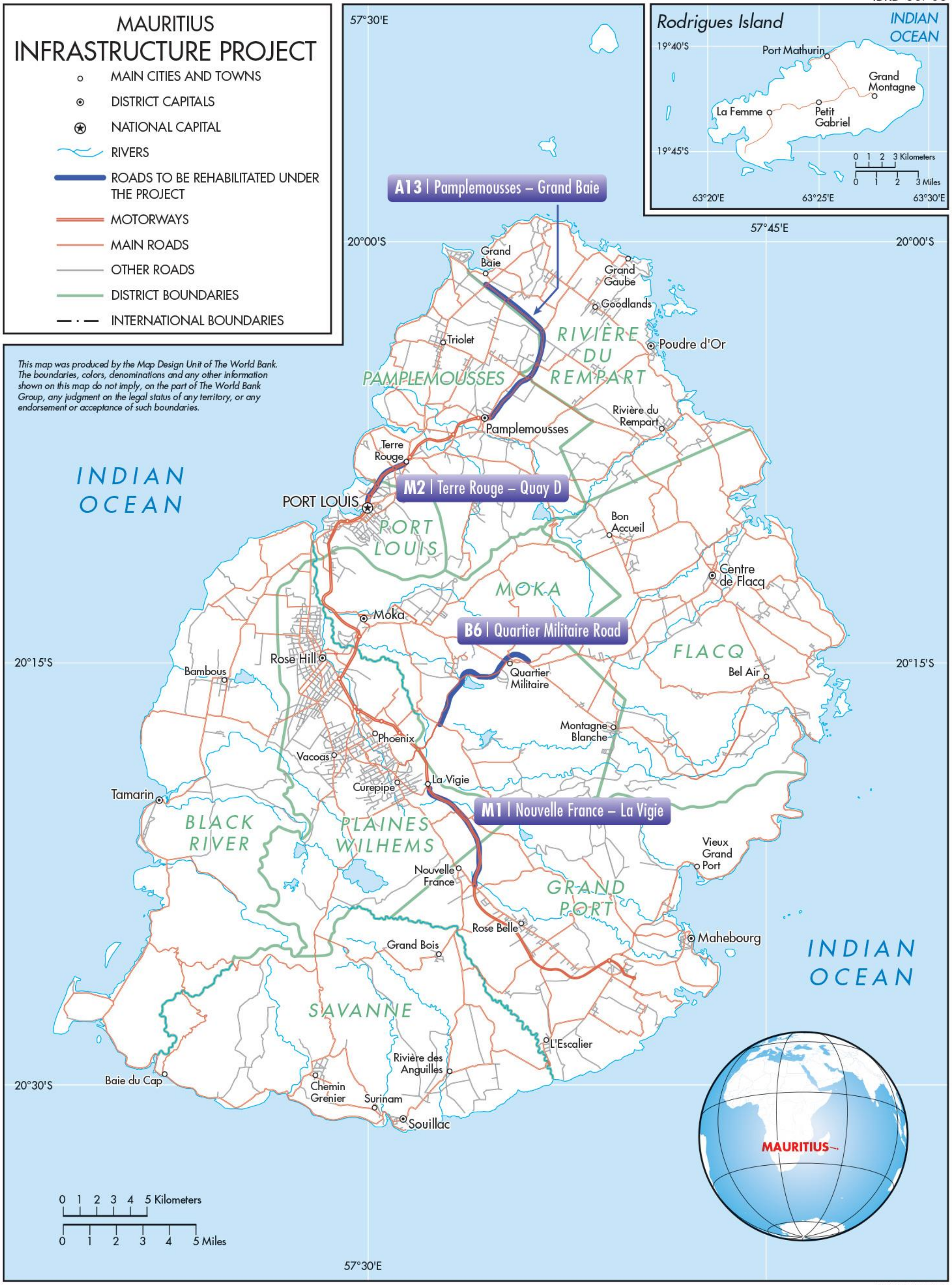
3. The World Bank (2014) *Restructuring Paper on a Proposed Project Restructuring of Infrastructure Improvement Project*, Loan 7734 to the Republic of Mauritius, Report No: RES13911, March.

4. The World Bank (2014) *Restructuring Paper on a Proposed Project Restructuring of Infrastructure Improvement Project*, Loan 7734 to the Republic of Mauritius, Report No: RES16507, November.

5. Aide Memoirs for Project Preparation and Supervision missions 2008-2014.

6. Project Implementation Status Reports for 2009-2014, Project Files.

IBRD 36708



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