

**INTEGRATED SAFEGUARDS DATASHEET  
APPRAISAL STAGE**

**I. Basic Information**

Date prepared/updated: 04/14/2009

Report No.: 48254

**1. Basic Project Data**

Country: Mauritius	Project ID: P091828	
Project Name: MU-Infrastructure Project		
Task Team Leader: Pierre Graftieaux		
Estimated Appraisal Date: December 8, 2008	Estimated Board Date: May 28, 2009	
Managing Unit: AFTTR	Lending Instrument: Sector Investment and Maintenance Loan	
Sector: Roads and highways (70%);General water, sanitation and flood protection sector (15%);General transportation sector (10%);General energy sector (5%)		
Theme: Rural services and infrastructure (P);Infrastructure services for private sector development (P)		
IBRD Amount (US\$m.):	50.00	
IDA Amount (US\$m.):	0.00	
GEF Amount (US\$m.):	0.00	
PCF Amount (US\$m.):	0.00	
Other financing amounts by source:		
<u>Borrower</u>		1.10
		1.10
Environmental Category: B - Partial Assessment		
Simplified Processing	Simple <input checked="" type="checkbox"/>	Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**2. Project Objectives**

The proposed project is consistent with the objective of the CAS (dated October 12, 2006), which is to help the Government realize successfully Mauritius' transition to a more competitive and sophisticated economy that requires the removal of infrastructure bottlenecks.

It will aim at meeting the following specific objective: To contribute to improved national infrastructure through playing a key role in the definition and implementation of a high-quality Public Sector Investment Program. More specifically, the project will 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, (iv) 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% of households as of now to 50% by 2012 and (v) provide technical assistance and training to the line Ministries and agencies.

### **3. Project Description**

Investment components are summarized below:

(A)Wooton – Belle Rive - Quartier Militaire Road, a 5.5-to-6.5 meter road, the main link between the East and the West of Mauritius, will be fully or partially rehabilitated and widened to up to 7.5 meters under the proposed project, to alleviate congestion and above all to improve road safety on this axis, largely used by trucks and buses. The scope of works for the upgrading of Quartier Militaire Road (B6) consists of two main components: (a) Upgrading of the existing alignment from Belle Rive junction to Quartier Militaire and (b) Construction of bypasses to inhabited areas at Valetta and Quartier Militaire.

(a) The upgrading works include:

- Partial realignment, strengthening and improvement of the longitudinal profile of the existing road over a length of about 7 km with a 7.4 meter wide carriageway from Belle Rive junction to Quartier Militaire
- Construction of footpaths and drains, provision of street lighting and resurfacing of the existing road through the inhabited areas of Valetta and Quartier Militaire over a length of about 2.25 km.

(b) The Bypasses include:

- Construction of a new 7.4 m wide road to bypass the village of Valetta over a length of 1.5km inclusive of two roundabouts, drainage and street lighting.(Valetta Bypass)
- Construction of a new 7.4 m wide road to bypass the village of Quartier Militaire over a length of 2.5km inclusive of three roundabouts, one underpass at Bonne Veine Road, drainage and street lighting.(Quartier Militaire Bypass).

(B)Roadworks activities will include the periodic maintenance of three highway sections, which will complement the ongoing works on the Terre Rouge – Pamplemousse section on M2 (approx. 10 km of dual carriageway): (i) Terre Rouge – Quay D on M2 (5 km of dual carriageway), (ii) Nouvelle France – Vigie on M1 (8 km of single carriageway) and (iii) parts of Pamplemousse-Grand Baie on M2 (4 km of double carriageway). Each of these three sections would be then maintained through one of the pilot performance-based routine maintenance contracts.

The Road Development Authority (RDA) is the Executing Agency for both these investment components of the Project.

#### 4. Project Location and salient physical characteristics relevant to the safeguard analysis

(A) Wooton – Belle Rive - Quartier Militaire Road, a 5.5-to-6.5 meter road, the main link between the East and the West of Mauritius. The two 7.4 m wide bypass roads will bypass the villages of Valetta and Quartier Militaire.

(B) Three portions of highway in the North of the island of Mauritius: the Terre Rouge – Pamplémousse section on the M2.

#### 5. Environmental and Social Safeguards Specialists

Ms Noreen Beg (AFTEN)

6. Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)		X
Forests (OP/BP 4.36)		X
Pest Management (OP 4.09)		X
Physical Cultural Resources (OP/BP 4.11)		X
Indigenous Peoples (OP/BP 4.10)		X
Involuntary Resettlement (OP/BP 4.12)	X	
Safety of Dams (OP/BP 4.37)		X
Projects on International Waterways (OP/BP 7.50)		X
Projects in Disputed Areas (OP/BP 7.60)		X

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: The project is not expected to have adverse environmental impacts on human populations or environmentally important areas.

The Quartier Militaire project will improve the quality of life of the general population, through reducing travel time and increasing safety of transit between the East and West of the island. The improvement in traffic flow will increase productive person hours and leisure time, as less time will be spent in transit between work and home.

The population living alongside the road or in the vicinity will particularly benefit as works will include the construction of pedestrian pavements, guardrails, speed breaks and pedestrian crossings, all of which will enhance safety and enable ease of transit for pedestrians traversing the route.

Street lighting will be provided along the new alignment and at all roundabouts to increase visibility for drivers, and reduce the risk of accidents. Bus shelters will be constructed, providing additional comfort and security to commuters.

The construction of an adequate drainage system channeling runoff to natural drainage courses will ensure that flooding, particularly at the Couacaud Bridge, and at other flood-prone areas along the alignment, will be reduced. This will reduce damage to cars, houses and structures, and will also enhance safety along the route.

Any potential negative environmental impacts of the works (including the bypasses) on the Quartier Militaire Road have been identified in the EIA "Upgrading of Quartier Militaire Road (B6)" dated July 2002. The EIA was reviewed by the Ministry of Environment and National Development Unit on 28 August 2008, who determined that no EIA license would be required.

The EIA is for the most part still current and relevant (though it is possible the number of trees along the route may have increased or decreased since 2002, but this will be assessed by the Conservator of Forests and the National Parks and Conservation Services). Four trees will be planted for every tree felled, the current estimate being that 1300 trees will be planted. The exact number, location and types of trees to be planted will be determined in consultation with the Conservator of Forests, who will continue to monitor the tree plantings over the lifetime of the project.

In the construction phase, adverse effects on the environment will include increased noise, vibration, and pollution levels due to construction and equipment, traffic restrictions due to lane closings, possible public utility interruptions in built-up areas, and to a lesser extent, slopes erosion, water flows obstruction, impairment of non-critical natural habitat, and minimal water pollution due to construction-related activities. No major contamination of soil or surface water is envisaged.

The project also includes the periodic maintenance of three highway sections, which will complement the ongoing works on the Terre Rouge – Pamplémousses section on M2 (approx. 10 km of dual carriageway). For both transport project components, an Environmental Management Plan (EMP) has been established and measures required to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance will be included in the bidding and contract documents to ensure that good engineering practices will be applied during construction. The contractors will be made aware of this obligation and their safeguard performance during construction will be closely supervised and monitored by the Project Engineers with close supervision of the Project Supervision Consultants.

The main social issue arising from project implementation is the need to extend the width of the Quartier Militaire road by up to 2 meters on either side in lightly populated areas. It will therefore be necessary in such areas, to ensure that Project Affected Persons (PAPs) are adequately compensated or provided assistance, as the case may be.

The term "Project Affected Persons" means persons who, solely on account of the execution of the activities under the Quartier Militaire project have or would have their: (a) standard of living adversely affected; or (b) right, title, or interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable

asset acquired or possessed, temporarily or permanently; or (c) business, occupation, work or place of residence or habitat adversely affected. In the case of PAPs in the Project area who do not have legal right or title to land that they are occupying, assistance will be given to replace non-land assets lost (defined as fixed immovable structures and crop or agricultural produce losses in the land acquired for the project).

An Abbreviated Resettlement Action Plan (RAP) has been prepared, and was initially disclosed by the borrower and in the InfoShop prior to appraisal (in December 2008). The Abbreviated Resettlement Plan has since been revised, in consultation with the Government of Mauritius. The revised version is dated April 7, 2009, and will be re-disclosed in the InfoShop and by the borrower on the RDA website. In Mauritius this RAP is referred to as the Land Acquisition Plan (LAP).

The construction of the two bypasses at Valletta and Quartier Militaire will reduce through traffic in heavily populated areas, thereby reducing localized pollution and enhancing safety, in addition to easing traffic flow. These two bypasses will traverse uninhabited sugar-cane fields. A preliminary census and notification of land acquisition procedures and compensation of PAPS in the bypass areas took place before appraisal, and findings were added to the revised RAP.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

A. With the widening of the Quartier Militaire road, road traffic flow will improve, and road accidents will be reduced. Since the route is the main artery between the East and West of the island, traffic will not increase beyond the present high load. The construction of pedestrian pavements, guardrails, speed breaks and pedestrian crossings, will enhance vehicle and pedestrian safety. The bypasses will reduce localized pollution in populated areas, and will further enhance safety. Since the bypasses traverse agricultural land, there will be no impact on critical natural habitats.

Sound engineering practice will be followed to ensure any impacts occasioned by construction - damage to walls, foundation and structures- will be kept to a minimum. In the case such damage occurs, the usual procedure is for the RDA to repair such damage, and this is the preferred option historically. Alternately, the PAP may opt for cash compensation (as assessed by the RDA) to undertake repairs themselves.

B. The resurfacing of existing roads would not significantly increase development in the North of the island and therefore, long term impacts would be minimal. Air quality and noise in the areas should improve since there should be less traffic congestion once the roads are better maintained. Smoother traffic flow will reduce stop-start driving patterns, which lead to increased emissions of greenhouse gases.

C. The renewable energy study that will be undertaken as a separate component of this project will include the preparation of feasibility studies for two renewable energy (wind, solar, biomass, etc) projects. Once sites have been identified for these two renewable

energy studies, a social and environmental assessment will be undertaken to ensure that the proposed projects are in compliance with all Bank safeguards.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

The possibility NOT to build bypasses that will detour around settled areas was considered, but eventually dropped following consultations with the PAPs and after a detailed socio-economic analysis was carried out, which showed that the magnitude of the benefits expected from these bypasses compensates for the extra costs (The project WITH the bypasses still yields an Economic Rate of Return of 51%).

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described. In keeping with the World Bank's Safeguard Policies, the Road Development Authority (RDA) prepared an Environmental Impact Assessment (EIA) for the Upgrade of Quartier Militaire Road in 2002, and is updating an Environmental Management Plan (EMP) based on questions submitted by the Ministry of Environment and National Development Unit on 28 August 2008. The Ministry determined that no EIA license would be required.

The RDA also prepared an EMP for the roadworks on the Terre Rouge – Pamplémousse section on M2. The EMP specifies the mitigation measures to be implemented by the contractor. In addition, all Contractors are required to obtain and abide by relevant GoM licenses for extraction of material from quarries and borrow sites, as well as licenses for the use of disposal sites, crusher and asphalt plant site, etc. The Project Management Unit and supervision consultants are required to monitor compliance of license conditions and the implementation of the EMP very rigorously. In support of this, the project will provide for training for appropriate RDA staff in environmental and social management of the road sector.

The Government of Mauritius' institutional capacity for safeguard policies is high. Tourism and fishing are key sectors of the Mauritian economy and both depend on sound environmental management for long-run sustainability.

Mauritius' environmental agencies have more than adequate capacity and experience in commissioning and following through on environmental impact assessments and for monitoring compliance with the country's environmental and social protection laws. The government is responsive to the desires of the public, and has many times in the past postponed or altered public projects that faced strong opposition from those who would be negatively affected and/or NGOs (the Southeastern Highway is an example).

For environmental issues, the Road Development Authority under the Ministry of Public Infrastructure, works closely with the Department of Environment within the Ministry of Environment and National Development to validate EIAs, and in the case of particularly sensitive projects, a staff member from the Ministry of Environment is assigned to the

supervision of the works from an environmental perspective. The Department of Environment's staff is adequately trained and experienced.

An Abbreviated Resettlement Action Plan (RAP) has been prepared for land acquisition that will result as a consequence of the Upgrade of Quartier Militaire Road. The RAP was initially disclosed by the borrower and in the InfoShop prior to appraisal (in December 2008). The Abbreviated Resettlement Plan has since been revised, in consultation with the Government of Mauritius. The revised version is dated April 7, 2009, and will be re-disclosed in the InfoShop and by the borrower on the RDA website. In Mauritius this RAP is referred to as the Land Acquisition Plan (LAP).

The construction of the two bypasses at Quartier Militaire and Villetta will reduce through traffic in heavily populated areas, thereby reducing localized pollution and enhancing safety, in addition to easing traffic flow. These two bypasses will traverse uninhabited sugar-cane fields. A preliminary census and notification of land acquisition procedures and compensation of PAPS in the bypass areas took place before appraisal, and findings were added to the revised RAP.

For the purposes of making available financing of the land acquisition payments under the Quartier Militaire Road Upgrade Project, and effecting full and prompt payment to PAPS, the Government of Mauritius (GoM) shall allocate to the Ministry of Housing and Land an amount equivalent to the aggregate value (aggregate value to be ultimately determined in accordance with the valuation method set forth in the RAP but currently estimated to be approximately US Dollars 1.1 million equivalent) of the land that the GoM proposes to acquire or has acquired, as the case may be, for the purposes of the Quartier Militaire Road Upgrade Project; and ensure that such amount be maintained by the Ministry of Housing and Land in a separate ledger account until all PAPS concerned have been paid in full.

Before any land may be compulsorily acquired for the purposes of the Quartier Militaire Road Upgrade Project, the GoM shall (A) carry out and complete an investigation, as well as a precise survey and valuation of all land proposed for acquisition, (B) determine the land value in accordance with the valuation method stipulated in the RAP (C) offer to each PAP who has legal right or title to such land the land value determined for the respective land proposed for acquisition, providing adequate time, which shall be no less than 21 calendar days from the date of the notice of offer, for the PAP to consider such offer, and (D) provide to PAPS who do not have legal right or title to such land that they are occupying, (should there be any such PAPS occupying the land as of the cut-off dates defined in the RAP) assistance to replace non-land assets lost (defined as fixed immovable structures and crop or agricultural produce losses in the land acquired for the project).

Should any PAP wish to contest the initial proposed offer, detailed procedures for counterclaims and appeals are outlined in the RAP.

The Chief Government Valuer in the Valuation Department of the Ministry of Finance and Economic Empowerment will undertake the assets valuation work, utilizing a very thorough valuation process which follows international accounting and valuation methods, (the internationally recognized Modern Methods of Valuation, primarily the comparative method). The valuation method to be used qualifies as replacement cost, as required by the Bank's Operational Policy OP 4.12. "Replacement cost" is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. The key stakeholders for this project are primarily the residents living along Quartier Militaire Road, and owners of small businesses and agricultural plots along the Quartier Militaire Road and the two bypasses. Others include transporters, road users, students, local NGOs, institutional stakeholders (local governments, RDA, Public Utility departments).

The RDA is working closely with the Citizens Advice Bureau and the local MP and community leaders, both in regard to public consultation and public information dissemination. Consultations and public participation have already been and will continue to be carried out as an ongoing and regular process throughout project planning, design and implementation stages. Preparation of appropriate documents and planning and implementation for the acquisition of land and other assets will be carried out in consultation with the PAPs and the PAPs will receive prior information of the compensation, relocation and other assistance available to them including:

- The relevant details of the project;
- The land acquisition plan and various degrees of project impact;
- Details of entitlements under the land acquisition plan and what is required of PAPs in order to claim their entitlements;
- Compensation process and compensation rates;
- Implementation schedule with a timetable for the delivery of entitlements.
- Information concerning grievance procedures and how to use them.

All Compensation issues will be followed up by the Ministry of Land and Housing.

Grievances can be voiced to the local Citizens Advice Bureau, who will hold periodic meetings on the project, and can also be voiced to the Contractor Engineer as well as directly to the RDA, which will ensure that necessary corrective measures are taken under the contract.

The road maintenance along the M2 will have negligible effects on residents and businesses. Any dust or noise pollution will be mitigated under measures prescribed in the EMP.



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***B. Disclosure Requirements Date***

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**Environmental Assessment/Audit/Management Plan/Other:**

Was the document disclosed <b>prior to appraisal?</b>	Yes
Date of receipt by the Bank	10/13/2008
Date of "in-country" disclosure	12/08/2008
Date of submission to InfoShop	12/03/2008
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	

**Resettlement Action Plan/Framework/Policy Process:**

Was the document disclosed <b>prior to appraisal?</b>	Yes
Date of receipt by the Bank	12/02/2008
Date of "in-country" disclosure	12/08/2008
Date of submission to InfoShop	12/03/2008

**Indigenous Peoples Plan/Planning Framework:**

Was the document disclosed <b>prior to appraisal?</b>	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	

**Pest Management Plan:**

Was the document disclosed <b>prior to appraisal?</b>	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	

**\* If the project triggers the Pest Management and/or Physical Cultural Resources, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

**If in-country disclosure of any of the above documents is not expected, please explain why:**

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***C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)***

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**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?	Yes
If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?	Yes
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes

**OP/BP 4.12 - Involuntary Resettlement**

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes
If yes, then did the Regional unit responsible for safeguards or Sector Manager review the plan?	Yes

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**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank's Infoshop? Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs? Yes

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**All Safeguard Policies**

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies? Yes

Have costs related to safeguard policy measures been included in the project cost? N/A

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies? Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents? N/A

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***D. Approvals***

<b><i>Signed and submitted by:</i></b>	<b><i>Name</i></b>	<b><i>Date</i></b>
Task Team Leader:	Mr Pierre Graftieaux	04/08/2009
Environmental Specialist:	Ms Noreen Beg	04/08/2009
Social Development Specialist Additional Environmental and/or Social Development Specialist(s):	Ms Noreen Beg	04/08/2009
<b><i>Approved by:</i></b>		
Sector Manager:	Mr Alain L. Labeau	04/08/2009
Comments: This ISDS(and the RAP) were initially disclosed in the Info Shop and by the Borrower in December 2008. Both documents have been revised and will be re-disclosed in the Info Shop and by the Borrower.		