



ROAD DEVELOPMENT AUTHORITY

PRESENTATION

By

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August 2017

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Introduction

The Road development Authority is responsible for the construction, care, maintenance and improvement of motorways and main roads around the island.

Our Mission

To provide a cost efficient mobility in comfort and safety for the Mauritian population and its economic operators to all parts of the island, by developing, preserving and maintaining a high standard classified road network through the judicious use of human, material, financial, and technological resources.

Road Development Authority

Key Facts

Total Length of Road in Mauritius	2430 km
Total Length of Road falling under the supervision of RDA	1300 km
Total Number of Vehicles	507,000 (Growth 4%)
Number of Bridges under the supervision of RDA	168
Ave. Cost of Road / km	~ \$1.5 M per km



Road Development Authority

Mauritian Government & RDA Vision

In line with Government Programme 2015-2019 and Vision 2030, the Road Development Authority (RDA) is implementing ongoing projects as well as embarking on new projects, while maintaining the existing roads to achieve the government objectives:

- ✓ Reduce congestion
- ✓ Improve transport system, service level, safety and security
- ✓ Value for Money
- ✓ Economic growth

Road Development Authority

Revamping of RDA 3-Year Delivery Plan

Hence, the RDA has revamped its 3-year delivery plan to be more strategic and focused on addressing the key challenges faced by the transport sector and roads in an integrated transport context; namely key themes are:

- ✓ Junction improvement and congestion reduction
- ✓ Enhancement of road service level
- ✓ Environment and sustainability
- ✓ Improved connectivity
- ✓ Flood and risk management
- ✓ Technology and innovation
- ✓ Improve processes and systems

Transport Sector SWOT Analysis

Strengths

- Strong connectivity through road network (over 2000 km)
- Good coverage by public transport
- Affordable transport fares
- Substantial tarred surfacing of roads
- Funding agencies keen to support transport infrastructure projects

Weaknesses

- Transport capacity at peak saturated
- Heavy dependence on roads
- High rate of accidents
- Road network based on agricultural tracks
- Public transport not conducive to mode shift currently
- Lack of a sustainable transport strategy
- Piece meal approach to development
- Lack of coordination among transport organisations

SWOT

Opportunities

- Integrated transport solution through Metro and effective transport planning
- Opportunity for sustainable transport measures
- Opportunity for mindset change to use of alternative modes of transport
- Use of TDM, ITS and innovation
- Opportunity for more joint private and public investment

Threats

- Widespread acute congestion coupled with lack of national development plan & infrastructure strategy
- Poor integration of transport modes
- No cycle lanes / sustainable modes
- Poor stormwater management & flood-prone roads
- Too many vehicles (cars and 2-wheelers – 590,000 vehs)
- Road users behaviour

RDA SWOT Analysis

Strengths

- Positive past project delivery track record
- Highly committed and reasonably competent staff
- Good procurement and contract documentation track record
- Biggest spender on infrastructure
- Strong collaboration and good synergy among RDA management, board and ministry
- Advice to other ministries
- No adverse audit issues except on 2 two major projects

SWOT

Weaknesses

- Reputation impacted due to two past project failures and cost overruns
- Public criticism
- Constantly operating in crisis mode
- Loss of trust in leadership
- Over-reliance on consultants
- Lack of maturity in management processes (Risk, quality, cost, IT, delegation of authorities, equipment)
- Internal lengthy procedures
- Silo working mentality
- Poor stakeholder management / External interfaces
- Risk averse to innovation, conservative approach

Opportunities

- To be the driving force of transport sector
- Engine for economic growth
- Digitalising the overall road network in terms of whole life asset management (conception to maintenance/operation data mgmt/GIS)
- R&D and knowledge management, learning lessons
- Optimizing secondary road network

Threats

- Widespread acute congestion coupled with lack of development plan & infrastructure strategy
- Bureaucratic burden
- Poor integration of transport modes
- Mismatch between maintenance priorities a budget allocation
- Intervention from other stakeholders
- Poor maintenance of non-classified roads affecting RDA reputation
- Environment (Flood risk from stormwater management, tree hazards etc)
- No enforcement capacity of RDA
- Increasing claims from road users

WHERE WE WANT TO GO

GOVT POLICY OBJECTIVES

Reduce congestion

Improve transport system, service level, safety and security

Value for Money

Economic growth

RDA IMPROVEMENT OUTCOMES & MEASURES

Enhance our transport planning and modelling capabilities

Improve infrastructure (New roads, bypasses)

Junction improvement programme

Segregate pedestrian footpath

Ensure successful completion of RDP projects through continuous risk & assurance approach

Explore introduction of Journey Planner with NTA & TMRSU

Integration of roads with Metro Express

Use of innovative technologies in infrastructure development

Earmark future land provision along all new roads

Improve public confidence

Implement output based contracts (maintenance cycle costs)

Revamp project management capability & training

Improving our project financial forecast

Performance appraisal of suppliers and contractors

Explore transparent collaborative working with all RDA stakeholders and develop a stakeholder map

Integration of new developments and smart cities with road network

Ensure rolling infrastructure investment for certainty of workload

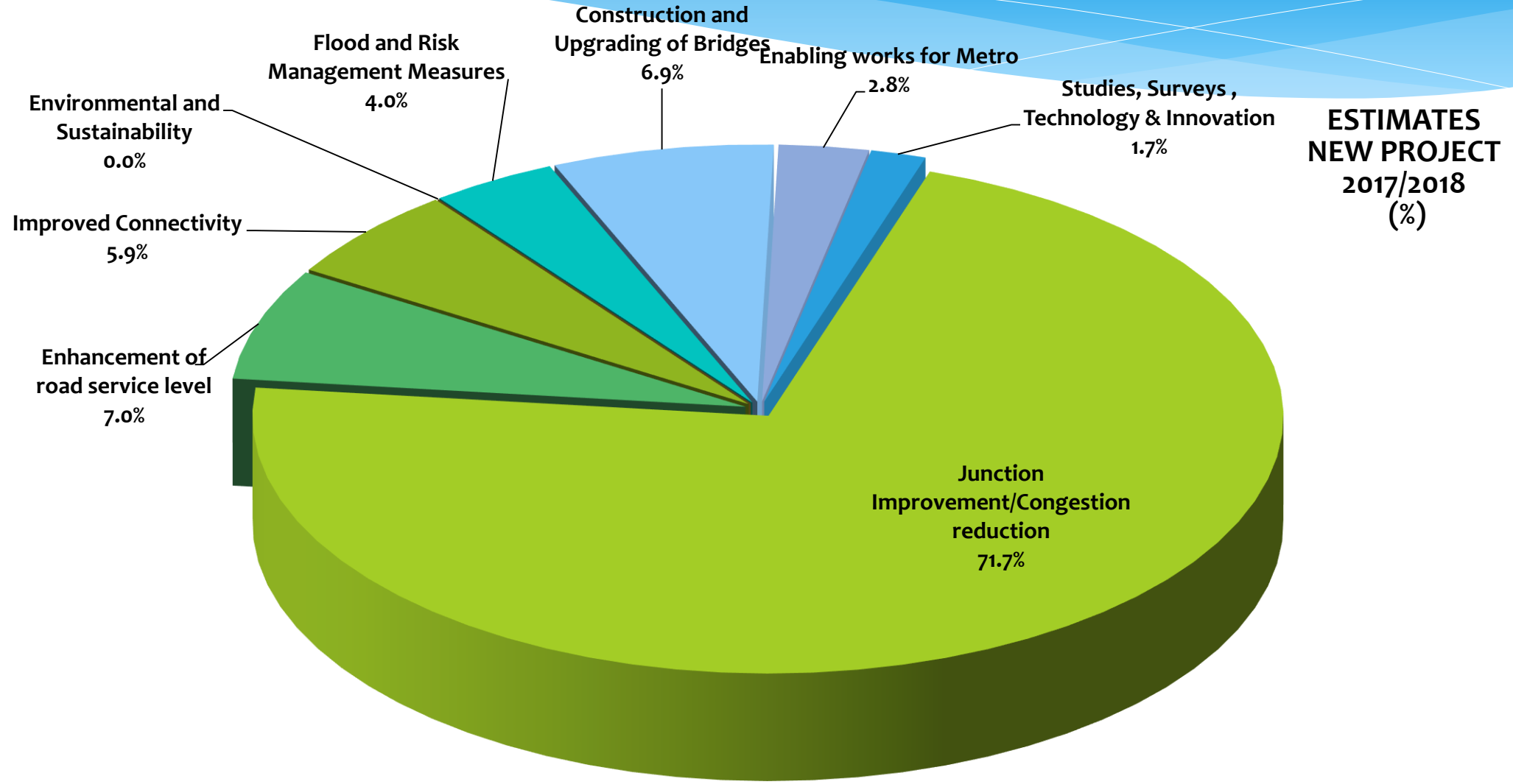
Encourage win-win public/private investment in projects

Look Forward for the Next Financial Year

RDA - New Projects

Description	Budget Estimates 2017/2018 Rs M
Studies, Surveys, Technology & Innovation	30.7
New Capital projects under specific themes	
Junction Improvement/Congestion reduction	1,270.0
Enhancement of road service level	124.0
Improved connectivity	104.0
Environmental and Sustainability	0.0
Flood and Risk Management Measures	70.0
Construction and Upgrading of Bridges	123.0
Sub Total - New Projects	1,721.7
Enabling works for Metro and Roads Interface	50.0
Grand Total	1,771.7

Look Forward For Next Financial Year (RDA New Projects)

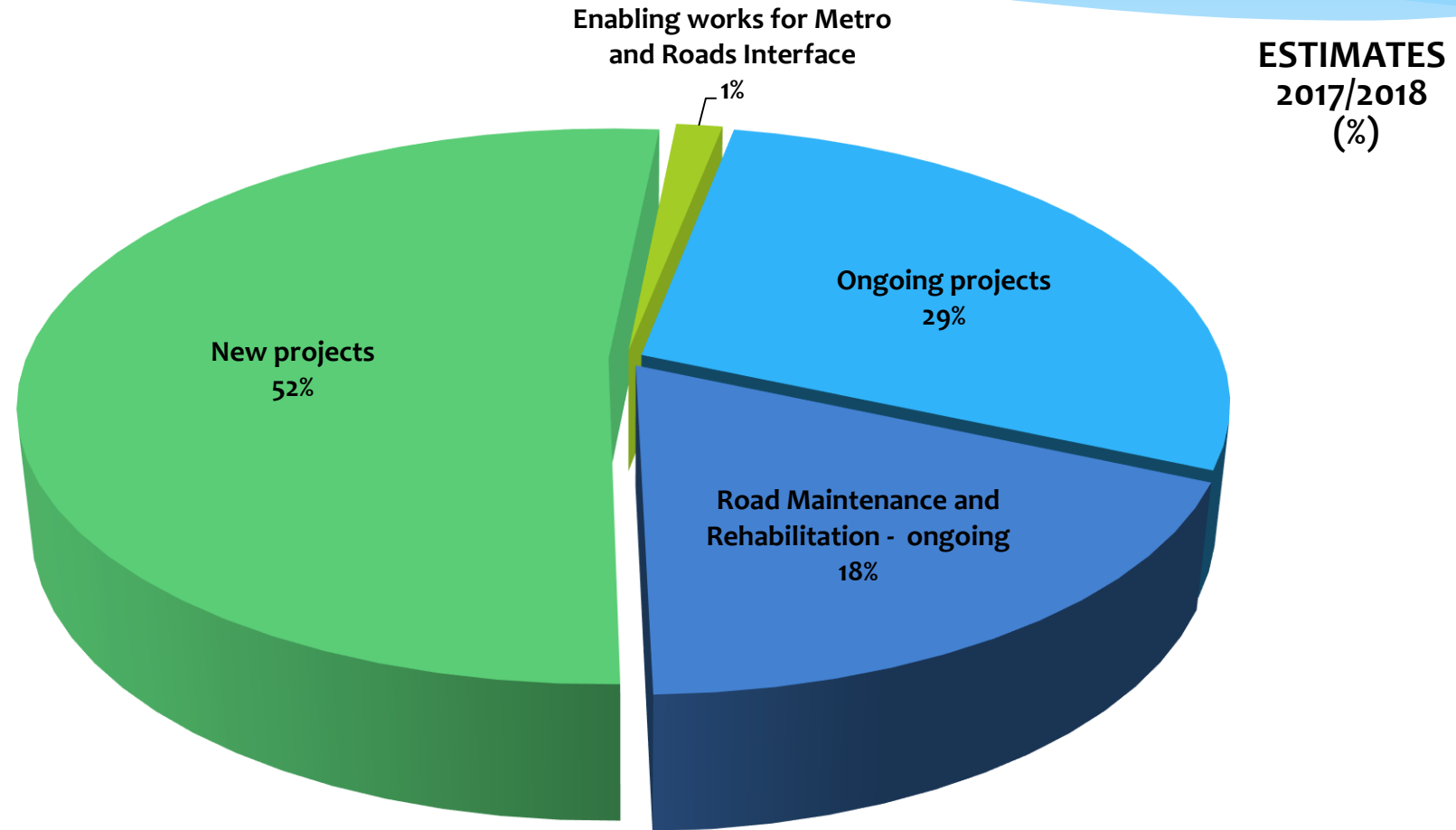


Look Forward for the Next Financial Year

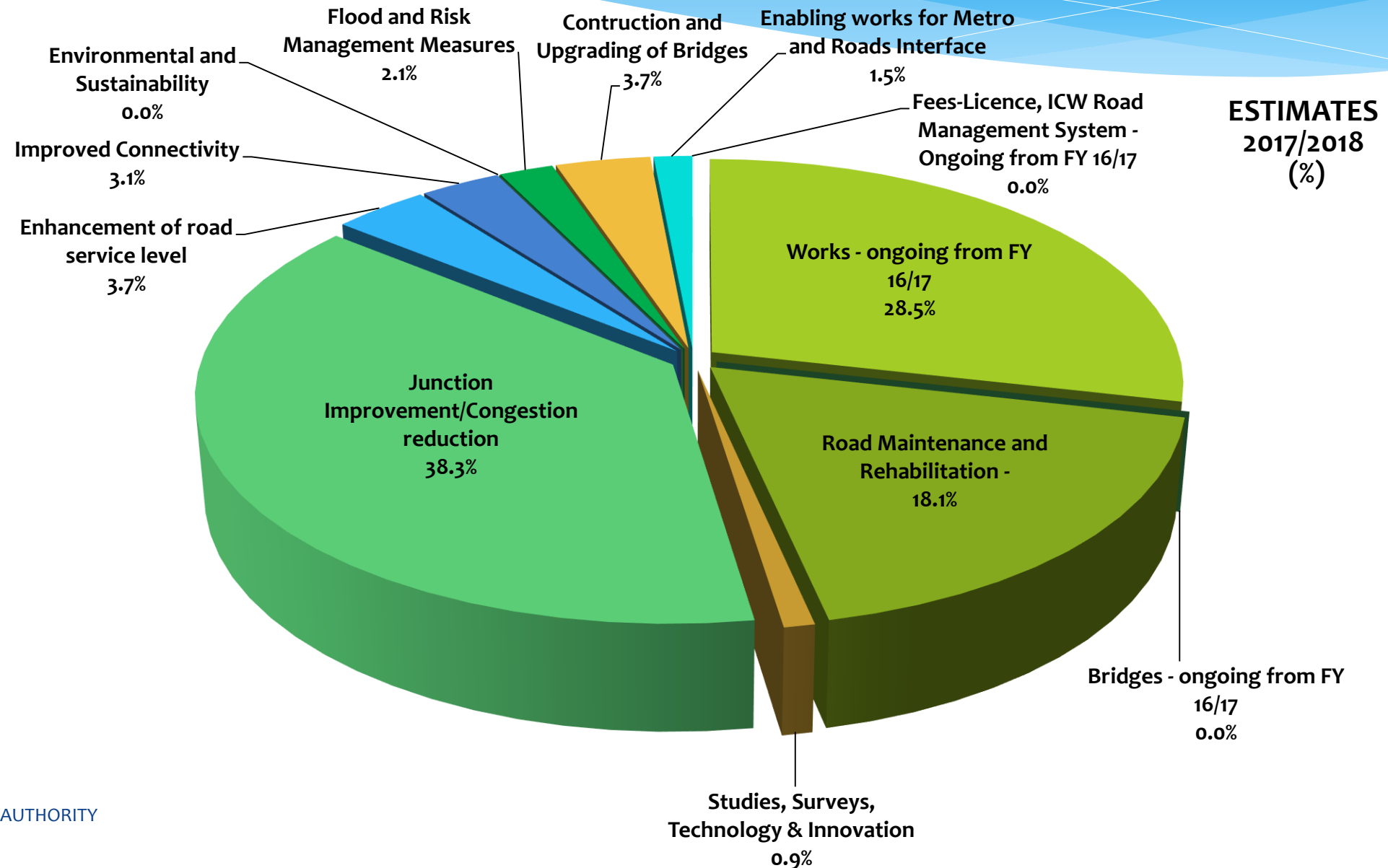
RDA - Ongoing & New Projects

RDA EXECUTIVE BUDGET SUMMARY ESTIMATES 17/18	
	Estimates FY 2017/18
Description	Rs M
Ongoing Projects	
Fees-Licence, ICW Road Management System	0.3
Capital Projects	945.6
Bridges	0.0
Road Maintenance & Rehabilitation	600.0
Sub Total - Ongoing Projects	1,545.9
New Projects	
Studies, Surveys, Technology & Innovation	30.7
New Capital projects under specific themes	
Junction Improvement/Congestion reduction	1270.0
Enhancement of road service level	124.0
Improved connectivity	104.0
Environmental and Sustainability	0.0
Flood and Risk Management Measures	70.0
Construction and Upgrading of Bridges	123.0
Sub Total - New Projects	1,721.7
Enabling works for Metro and Roads Interface	50.0
Grand Total	3,317.6

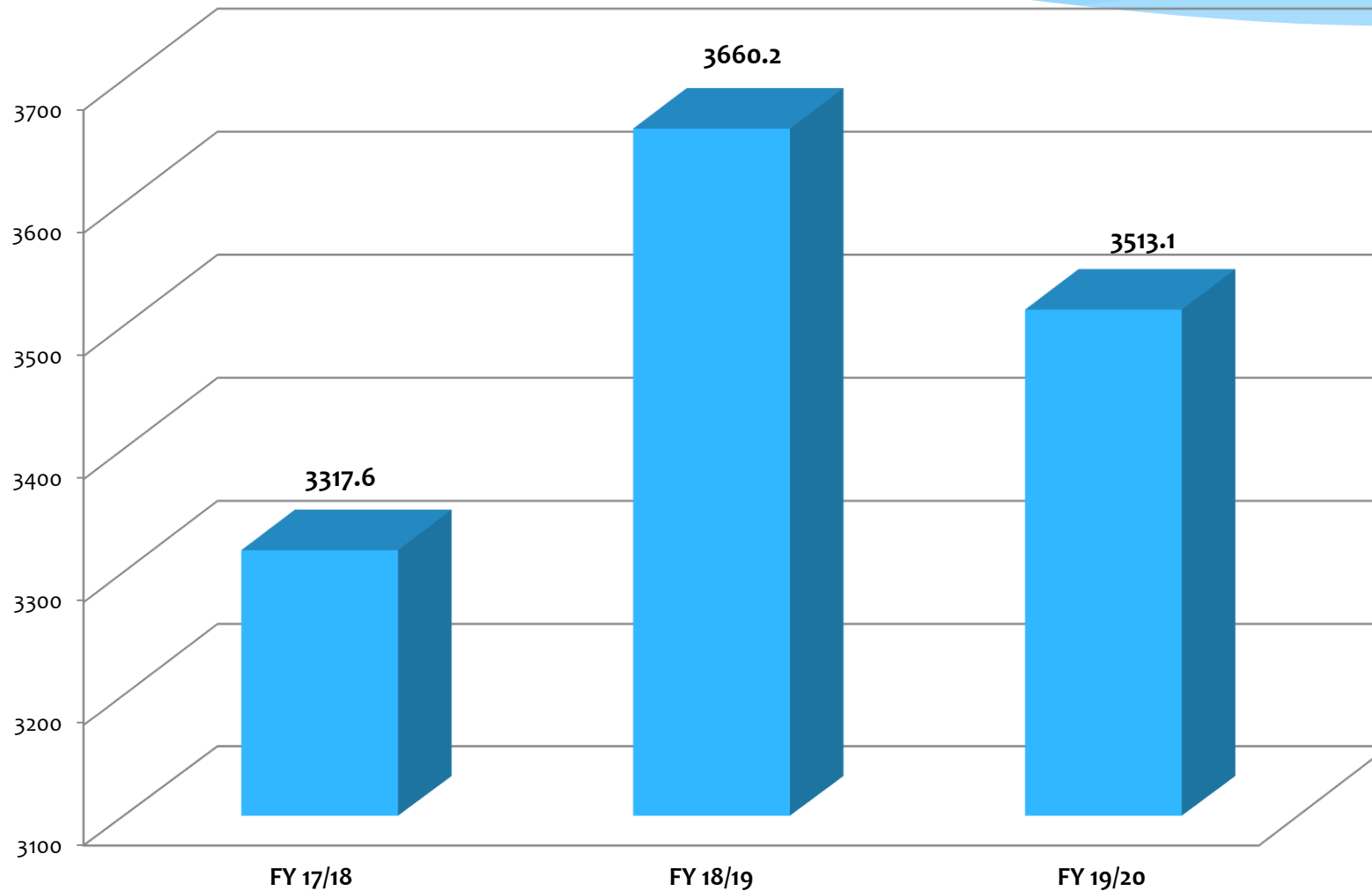
Look Forward For FY 17/18 (RDA Ongoing & New Projects)



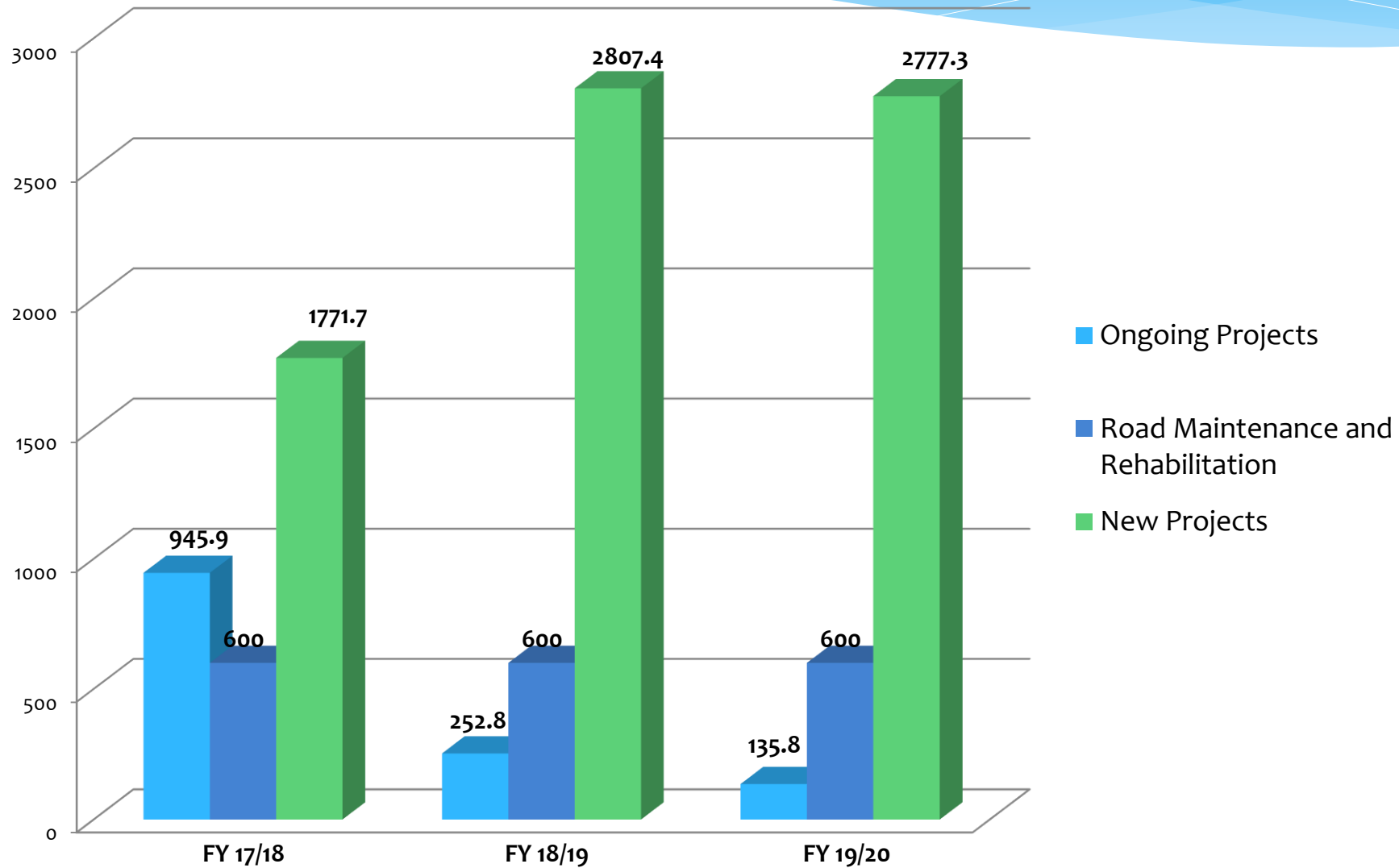
Look Forward For FY 17/18 (RDA Ongoing & New Projects)



Look Forward For FY 17/18, 18/19 & 19/20 – RDA (Rs M)



Look Forward For FY 17/18, 18/19 & 19/20 – RDA (Rs M)



Appendix 1

List of Approved Ongoing & New Projects

Look Forward – RDA Projects

ONGOING FEES-LICENCE, ICW ROAD MANAGEMENT SYSTEM

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
FEES-LICENCE ICW ROAD MANAGEMENT SYSTEM	Rs M	Rs M	Rs M	Rs M	Rs M
Fees-Licence icw Road Management System	0.3	0.2	0.3	0.3	0.3
SUB TOTAL – FEES-LICENCE ICW ROAD MANAGEMENT SYSTEM	0.3	0.2	0.3	0.3	0.3

Look Forward – RDA Projects

ONGOING PROJECTS

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
ONGOING PROJECTS	Rs M	Rs M	Rs M	Rs M	Rs M
Third Lane at Grand Bassin	15.0	10.0	56.0	2.2	
Arsenal Link Road	21.5	13.5	11.8	0.0	
New Access Road at SSR Airport	445.5	445.5	74.0	15.0	
Saint Julien Bypass	50.0	22.3	180.0	52.1	6.5
Flyover at De Caen Street, Port Louis	50.0	2.0	150.0	175.0	78.0
Terre Rouge Verdun Stabilisation works	402.7	253.7	115.8	0.0	
Ring Road Phase 1 remedial works	140.0	73.6	72.6	0.0	
Repair of embankment failure on Terre Rouge Verdun Road	50.0	32.4	284.4	8.2	
La Vigie - La Brasserie - Beaux Songes Link Road (Phase 1)	14.6	12.9	1.0	0.0	51.0
Terre Rouge Verdun Trianon Link Road (Lot 2)-Consultancy	2.0	0.7			
La Mivoie,Riviere Noire	2.0	1.3			
SUB TOTAL - ONGOING PROJECTS	1193.3	867.9	945.6	252.5	135.5

Look Forward – RDA Projects

ROAD MAINTENANCE AND REHABILITATION

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
ROAD MAINTENANCE AND REHABILITATION	Rs M	Rs M	Rs M	Rs M	Rs M
Roads and Bridges	450.0	450.0	450.0	450.0	450.0
Footpaths	100.0	100.0	100.0	100.0	100.0
Road Marking and Signage	50.0	50.0	50.0	50.0	50.0
SUB TOTAL - ROAD MAINTENANCE AND REHABILITATION	600.0	600.0	600.0	600.0	600.0
TOTAL – ONGOING RDA PROJECTS	1793.6	1468.1	1545.9	852.8	735.8

Look Forward – RDA Projects

NEW STUDIES, SURVEYS, TECHNOLOGY & INNOVATION

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
STUDIES, SURVEYS, TECHNOLOGY & INNOVATION	Rs M	Rs M	Rs M	Rs M	Rs M
New Consultancies (a) Grand River North West Bridge (b) Integrated transport Impact Assessment and Future Road Strategy 2030 (c) Leading-Edge Road Specifications and Standards for Mauritius Technology and Innovation (d) Intelligent Technologies and Alternative Transport System for Roads (Study) (e) Whole-life Asset Management and Operation Plan (Study) (f) Setting up of Management Information System (MIS) and E-services at the RDA (g) Quality Management System - (Integrated Safety, Quality, Environmental and Risk Management Systems (SQER))					
SUB TOTAL - STUDIES, SURVEYS, TECHNOLOGY & INNOVATION	20.0		30.7	30.7	30.7

Look Forward – RDA Projects

JUNCTION IMPROVEMENT/CONGESTION REDUCTION (NEW PROJECTS)

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
JUNCTION IMPROVEMENT/CONGESTION REDUCTION	Rs M	Rs M	Rs M	Rs M	Rs M
Upgrading of Ebene Flyover			70.0	100.0	80.0
Reconstruction of Jumbo Phoenix Roundabout and A1 – M1 Bridge	1000.0	47.0	1200.0	1500.0	1900.0
SUB TOTAL – JUNCTION IMPROVEMENT/CONGESTION REDUCTION	1000.0	47.0	1270.0	1600.0	1980.0

Look Forward – RDA Projects

ENHANCEMENT OF ROAD SERVICE LEVEL (NEW PROJECTS)

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
ENHANCEMENT OF ROAD SERVICE LEVEL	Rs M	Rs M	Rs M	Rs M	Rs M
Third lane from Jin-Fei to Port	42.0		90.0	200.0	60.0
Upgrading of Pointe aux Sable Road at Petit Verger	5.0		20.0	66.0	2.0
Improvement of bend at Nouvelle Decouverte			10.0	53.4	1.6
Reprofiling of L'Amaury Road			4.0	35.0	1.0
SUB TOTAL – ENHANCEMENT OF ROAD SERVICE LEVEL	47.0		124.0	354.4	64.6

Look Forward – RDA Projects

IMPROVED CONNECTIVITY (NEW PROJECTS)

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
IMPROVED CONNECTIVITY	Rs M	Rs M	Rs M	Rs M	Rs M
Design and Construction of Fort William-Port Road	72.0		50.0	28.0	2.0
A1 – A3 Link Road	50.0		34.0	146.0	20.0
Design and Construction of a Bypass at Cap Malheureux	20.0		0.0		50.0
Construction of Glen Park Robinson Link Road	38.8		20.0	19.8	4.0
SUB TOTAL – IMPROVED CONNECTIVITY	180.8		104.0	193.8	76.0

Look Forward – RDA Projects

FLOOD AND RISK MANAGEMENT MEASURES (NEW PROJECTS)

DESCRIPTION	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
FLOOD AND RISK MANAGEMENT MEASURES	Rs M	Rs M	Rs M
Landslide works at Chamarel	0.0	30.0	250.0
Upgrading of B28 Road (Lot 1) from Cavendish Bridge to Anse Jonchee		20.0	220.0
Upgrading of B28 Road (Lot 3) from Deux Freres to Bel Air	30.0	150.0	32.0
Reconstruction of B104 (Baie du Cap- Chamarel-Case Noyale) Road at Chamarel	40.0	57.5	2.5
SUB TOTAL – FLOOD AND RISK MANAGEMENT MEASURES	70.0	257.5	504.5

Look Forward – RDA Projects

CONSTRUCTION AND UPGRADING OF BRIDGES (NEW PROJECTS)

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
CONSTRUCTION AND UPGRADING OF BRIDGES	Rs M	Rs M	Rs M	Rs M	Rs M
Radier St Martin At Bel Ombre	5.0	7.6	49.0	25.0	2.5
Pont Bruniquel			30.0	24.0	6.0
St Denis Bridge Chamarel			25.0	23.0	
Ste Marie Bridge, Bel Ombre			10.0	49.0	6.0
Joli Bois Bridge, Mare Tabac			4.0	18.0	5.0
Choisy Bridge, Poste Lafayette			5.0	22.0	3.0
L'Avenir Bridge			0.0	10.0	49.0
SUB TOTAL - CONSTRUCTION AND UPGRADING OF BRIDGES	5.0	7.6	123.0	171.0	71.5

Look Forward – RDA Projects

METRO AND ROAD INTERFACE (NEW PROJECTS)

DESCRIPTION	Estimates 2016/2017 (Jul to June)	Revised Estimates 2016/2017 (Jul to June)	Estimates 2017/2018 (Jul to June)	Planned 2018/19 (Jul to June)	Planned 2019/20 (Jul to June)
METRO AND ROAD INTERFACE	Rs M	Rs M	Rs M	Rs M	Rs M
Enabling works for Metro & Road Interface at Palmerstone			50.0	200.0	50.0
SUB TOTAL - METRO AND ROAD INTERFACE			50.0	200.0	50.0
TOTAL – NEW RDA PROJECTS	1252.8	54.6	1771.7	2807.4	2777.3
GRAND TOTAL – ONGOING & NEW RDA PROJECTS	3046.4	1522.7	3317.6	3660.2	3513.1

Road Development Authority

Prospective Projects

■ Construction of Ring Road

- To provide additional entry/exit around Port Louis City Centre
- To alleviate traffic congestion in Port Louis

■ Construction of a Fly-Over at Quay D Roundabout

- To improve traffic flow along Motorway M2.

■ Quatre-Bornes Masterplan

- Upgrading of Existing Ebene Flyover (Currently being implemented)
Reduce traffic congestion along Motorways M1 and M3
- Construction of M1-M3 Link Road
Reduced traffic congestion at St Jean Interchange and St Jean Road



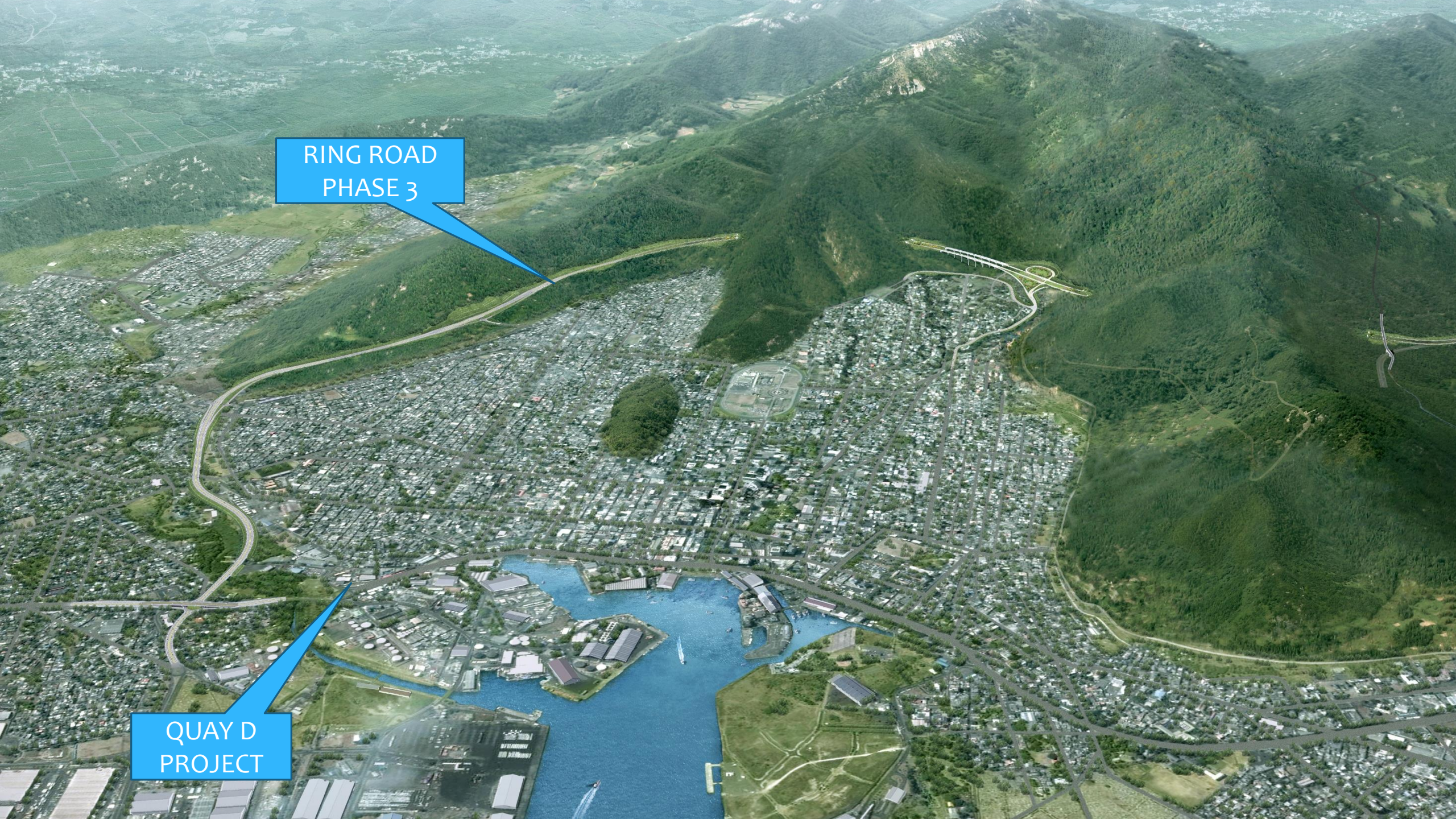
RING ROAD
PHASE 2

Construction of Ring Road

Ring Road Phase 2

- Ring Road Phase 2 will be an approximately 4.8 km long dual carriageway.
- Start at end of existing Ring Road Phase 1 through 1.0 km long tunnel to the centre of capital.
- Involve construction of a second tunnel through Colline Monneron.
- End at junction with Boulevard Victoria on Vallee Pitot side.

Purpose: Along with Ring Road Phase 1, this project will provide a strategic alternative access to allow traffic to enter/exit Port Louis and alleviate traffic congestions along M1 and M2



RING ROAD
PHASE 3

This aerial photograph shows a coastal town with a harbor. The town is densely packed with buildings, mostly residential. A large body of water, the harbor, is in the lower center, with several industrial buildings and docks along its shores. The town is surrounded by steep, green mountains. A road, identified as Ring Road Phase 3, runs along the top edge of the town, following the contour of the mountains. A blue arrow points from the text label to this road. Another blue arrow points from the text label 'QUAY D PROJECT' to a specific area in the harbor.

QUAY D
PROJECT

Construction of Ring Road & Flyover at Quay D Roundabout

Ring Road Phase 3 & Quay D Project

- Ring Road Phase 3 will be an approximately 2.9 km long dual carriageway.
- Start at the junction with Boulevard Victoria and continue as a new route parallel to Military Road.
- Connect Motorway M2 through an interchange between Quay D and Mer Rouge roundabouts.
- End at the Port near Containers Park via a dedicated overpass.

Purpose: To provide a strategic alternative access between the Port and the City.

RING ROAD
PHASE 3

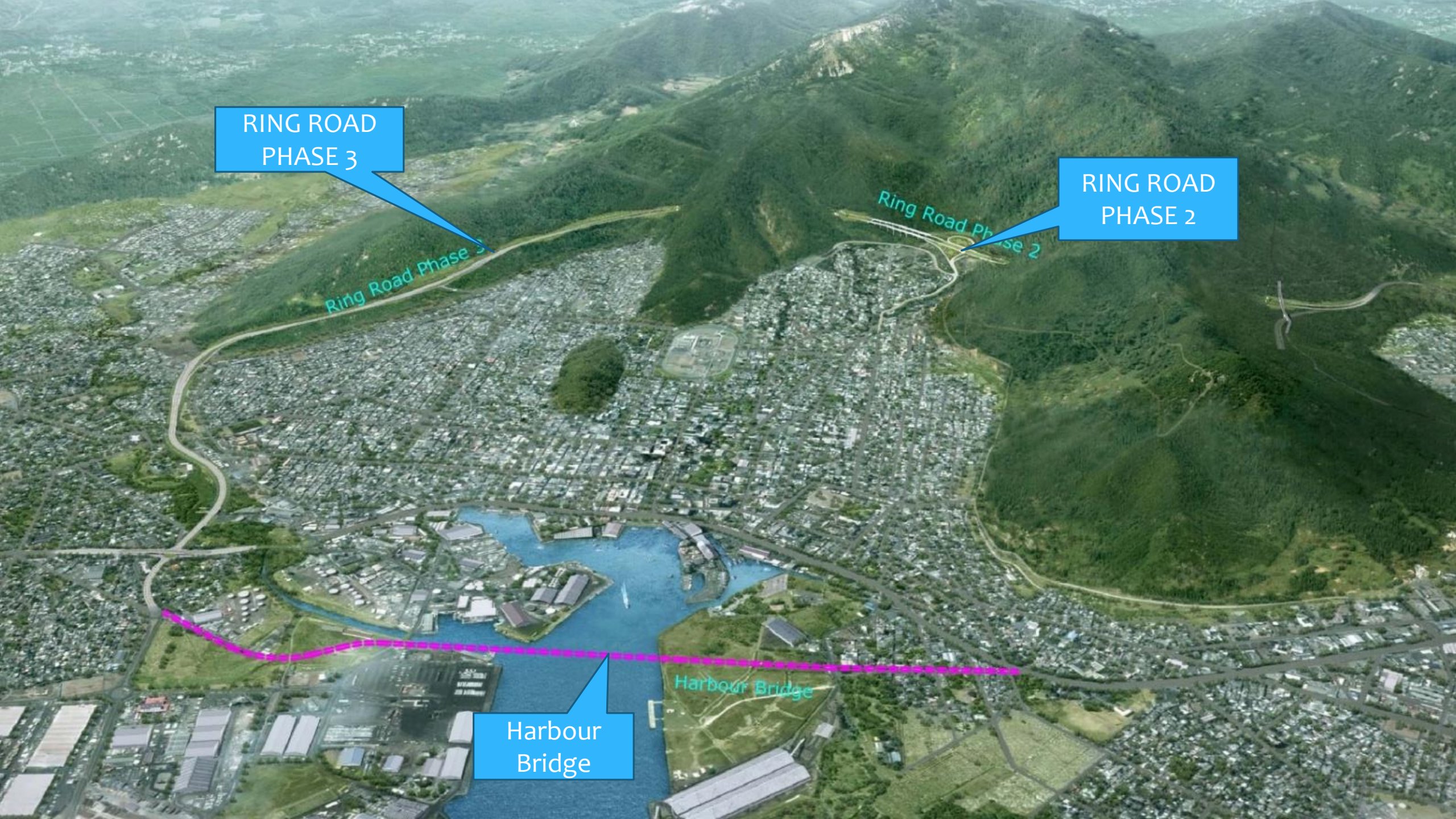
Ring Road Phase 3

RING ROAD
PHASE 2

Ring Road Phase 2

Harbour
Bridge

Harbour Bridge



Quatre-Bornes Masterplan

Upgrading of Existing Ebene Flyover

- Based on a Multicriteria Option Evaluation, a Diverging Diamond Interchange (DDI) was chosen as the best proposal.
- Scope of works includes the elimination of the existing roundabout along M3 at this junction with existing Flyover, and replacing the existing roundabout at Ebene with signalised intersection.
- The interchange will be accompanied with the demolition of the existing roundabout along Ebene-Trianon Link Road which will be replaced with a signalised intersection in order to cater for additional lanes. The existing roundabout along Motorway M3 will also be demolished since direct access onto Motorway M1 will be provided for traffic exiting the flyover.
- **Purpose:** Reduce traffic congestion along Motorways M1 and M3.

EBENE



Proposed signalized
intersection

Proposed Diverging
Diamond Interchange

Motorway M1

Quatre-Bornes Masterplan

Construction of M1-M3 Link Road

- This project involves the construction of a link road connecting Motorway M1 to Motorway M3. A new roundabout will be constructed along M3 in order to facilitate traffic flow from Sodnac to Ebene and the North and vice-versa.
- The new dual carriageway will be approximately 2.0km long, 8m wide with 1.5m wide paved hard shoulders on both sides. The scope of works includes the construction of an underpass for vehicular traffic across M1 connecting the new link road to Hillcrest roundabout.
- **Purpose:** Reduce traffic congestion at St Jean Interchange and St Jean Road, while providing additional access point to Quatre-Bornes, at Sodnac

