



# **Mauritius National Land Development Strategy**

Draft Submission

May 2021



# **Mauritius National Land Development Strategy**

Draft National Land Development Strategy  
FOR CONSULTATION  
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# **1. Introduction**

## **1.1. Introduction and Background**

The Draft National Land Development Strategy is part of a comprehensive review and update process of the 2003 NLDS undertaken for the Ministry of Housing and Land Use Planning. It provides the draft vision, strategy and policies for the Island of Mauritius to 2040. Once finalised and adopted the new NLDS will replace the 2003 NDS (adopted in 2005) as the principal Land Use Planning Strategy for the Island of Mauritius.

## **1.2. Purpose of the Review**

To undertake a review and update of the 2003 NDS and propose new directions for development planning to 2040 consistent with sustainable development principles.

The specific objectives of the assignment are as follows:

- To review the various land policies and land management practices of different stakeholders over the last 18 years, and identify and propose corrective measures and changes to the land use planning laws, where appropriate, consistent with the revised NLDS and sustainable principles.
- To make recommendation for a public transport strategy as an integral component of the land use proposals, smart growth principles and compact development strategy.
- To provide a holistic land development framework and a coordinating mechanism to ensure that serviced lands are available for projects to start.
- To define policies and strategies for different types of economic activity, including residential development, land for affordable housing and the housing sector.
- To ensure that environmentally sensitive areas and highly suitable agricultural lands are protected from development pressures.
- To provide planning policies for coastal areas include setbacks and buffer zones from the high-water mark taking into consideration climate change.
- To provide guidelines on buffer zones and setbacks for key infrastructure projects from sensitive land uses.
- Update guidelines for buffer zones and setbacks for bad neighbour activities such as batching plants, stone crushing plants, poultry farms etc.
- To integrate disaster risk management / climate change principles in the land use strategy.

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- To provide strategic guidance in the improvement and provision of new utility infrastructure for water, sewerage, drainage, electricity and other public utilities.
- To investigate the implications of an ageing population on land use.
- To consider gender equity issues especially with regard to natural resource tenure in land administration.
- To endow towns and villages with a range of employment opportunities and social and community services such as health, education, recreational, leisure and cultural facilities.
- To integrate urban heritage principles within a wider framework of land development.
- To provide a basis for the revision and updating of all current land use local plans.
- To make proposals for institutional and legislative reform.
- To define an Action Programme/Action Plan for Implementation setting out key indicators, identifying lead partners, delivery bodies and time horizons. The main projects to be carried out to be included in budgetary proposals.

### 1.3. Review Process and Consultation

The Project is divided into three stages:

- Stage 1: Data Collection, Stakeholder Consultation and Analysis (Tasks 1 to 3)
- Stage 2: Key Issues and Preliminary Concepts/ Scenarios; (Tasks 4 to 6) and
- Stage 3: Final Product Delivery (Tasks 7 and 8)

The Draft National Land Development Strategy (this report) is the output from Task 6 and provides the following:

- The Policy Framework
- Vision and Objectives
- Draft Spatial Strategy
- Sector based strategy and policies.

Stakeholder Consultation feedback from the project Steering Committee, Government Ministry Department and Local Authority meetings, private sector meetings and presentations, national workshops and NGO submissions have been considered in the drafting of this report.

Consultation for the draft National Land Development Strategy will be undertaken by both the consultant team and the Ministry of Housing and Land Use Planning. Following consultation, the final stage focuses on the production and delivery of the Final Draft NLDS and Implementation Plan.



## **1.4. Role of the National Land Development Strategy**

The role of the is set out in Part III section 12 of the Planning and Development Act 2004. It states that the National Land Development Strategy, which shall – (a) state the aims, objectives, policies and strategies through which the objects of this Act shall be achieved; (b) consist of plans, policies and guidelines with mechanisms for their implementation, which aim at creating and stimulating investments in the public and private sectors so that economic growth and social development in relation to land development can be undertaken in a sustainable and equitable manner, so as to maintain and enhance the natural and built environment; (c) outline the resources to be committed for its implementation. (2) The National Land Development Strategy shall prevail over any other planning instrument to the extent of any inconsistency

## **1.5. Content and Format of the National Land Development Strategy Review**

To address the key aims and required outputs the revised National Land Development Strategy will comprise the following:

- This document containing the National Land Development Strategy (Draft).
- A second Report containing the Implementation and Action Plan.
- A third Report containing the Institutional and Legislative Framework.

The Strategic Framework and policies described in this document focus on the strategic level aspects of land use development. The Spatial strategy is set out and supported by a range of Strategic Policies, which are to be given overriding importance and priority in this NLDS. Sector specific policies are set out in the subsequent sections. The NLDS provides the broad policy framework within which local level policies can be developed to control and manage development within each municipality and district through the Outline Planning Schemes.

The planning policies are primarily concerned with the consideration of applications for development permits for the change of use or other development of land as defined by the Town & Country Planning Act and proposed Amendments. The granting of a development permit by a planning authority does not override obligations under any other legislation relating to the proposal of its site.

Subsequent sections of the document are structured as follows:

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- Section 2: Sets out the Social, Economic and Environmental context for the strategy and policies.
- Section 3 provides the Spatial Development Strategy and Core policies for the Conurbation, Countryside and Coast.
- Section 4 set out the policies for the creation of Liveable Communities.
- Section 5 contains the policies to promote Economic Prosperity.
- Section 6 provides the policy framework for the protection and management of Natural Resources.
- Section 7 sets out the policies for the protection and management of the Natural Environment.
- Section 8 provides an expanded policy framework for the creation, protection and enhancement of the Built Environment.
- Section 9 contains policies promoting better transport and mobility for Mauritius.
- Section 10 provides policies that will help ensure the physical infrastructure is in place to deliver the strategy.

## **2. Context and Vision for the NLDS**

### **2.1. Context**

The Review and update of the National Land Development Strategy has been undertaken during a period which has seen health, economic and environmental shocks not seen in many peoples' lifetime befall Mauritius in the space of less than twelve months. These events have impacted the baseline conditions for plan preparation as the Government has sought to provide a vision for a new normal.

Against these shocks there are longer term, structural changes in the population and economy that need to be factored in. Longer term international obligations such as the Paris Climate Agreement remain in place and are perhaps more important now than when they were signed. Significant investment has been made in the country's physical capital since 2003 in the form of new and upgraded roads, national and international transportation systems, dams and pipelines, but more remains to be done.

### **2.2. A Changing Demographic**

#### **2.2.1. Population Trends Over the Past Two Decades**

Over the last two decades the population of the Island of Mauritius has remained broadly stable, increasing only slightly by a total of 36,000 residents from 1.19 million in 2003 to just over 1.22 million by 2020. This underlying stability masks some notable demographic changes that will impact on the type of facilities and spaces residents require over this plan period. The key changes have been an overall ageing of the resident population as birth rates falling which has coincided with a fall in the death rate as life expectancy has risen. Average life expectancy of the Mauritian population in 2019 was 71.2 years for men and 77.8 years for women. This has risen since 2000 with the rise flattening off.

Since 2003, the population of the rural districts has increased with a broadly corresponding decrease in the population in the urban areas. The most significant changes have been seen in Port Louis which has seen the highest fall and Black River which has seen the highest rise. The relative changes in population by District are illustrated in Figure 1.

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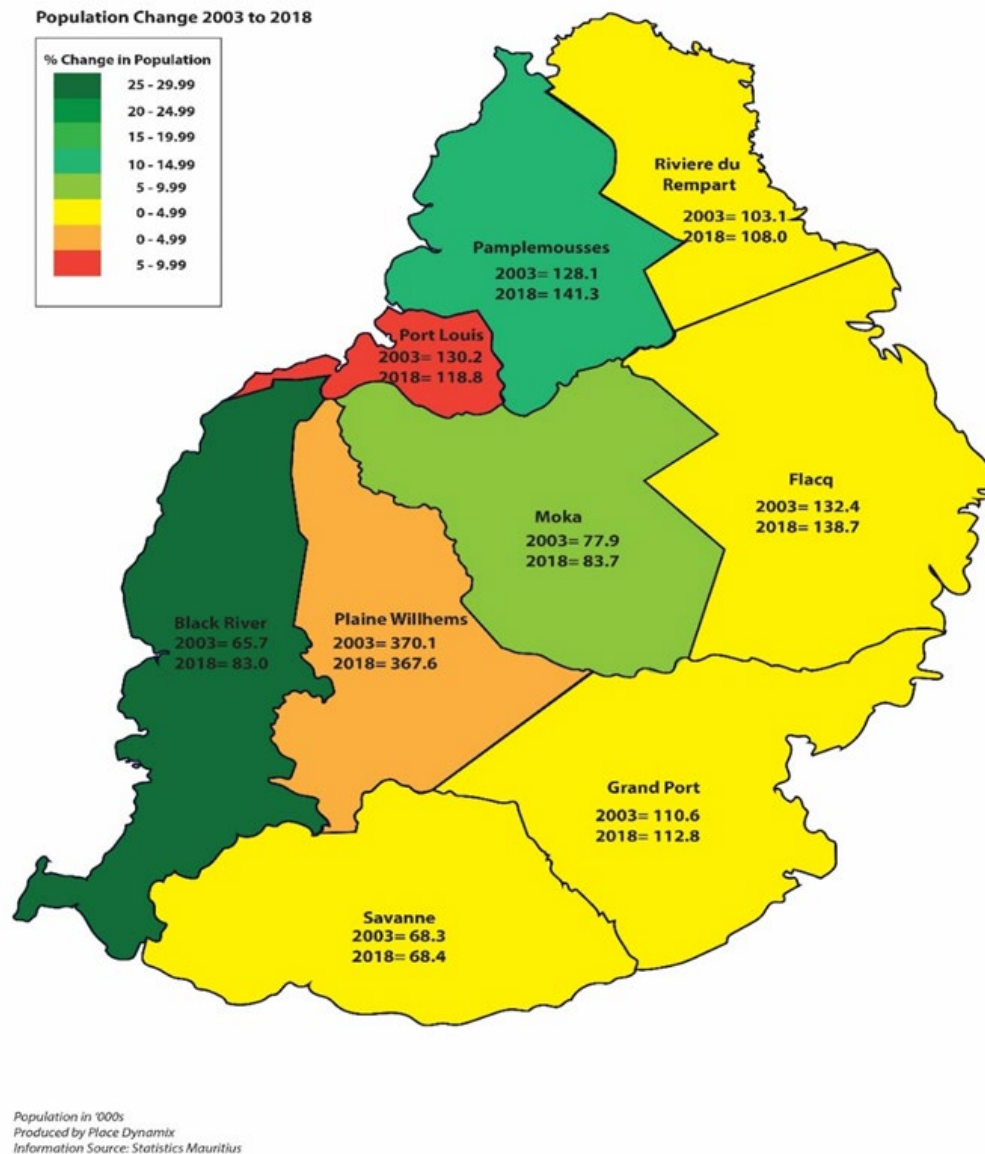


FIGURE 1: POPULATION CHANGE BY DISTRICT 2003-2018

Drilling down into more local Census Areas it is evident that whilst there has been a reduction in the population of the urban districts there has been an increase in those VCAs located in the peri-urban area. The VCAs located in rural districts such as Pamplemousses and Moka that are adjacent to the urban districts have seen relatively large increases in population as the urban area has expanded into the rural area. This underlines the influence of the conurbation on the Island.

There has been a reduction in the number of children in Mauritius over the last two decades, with the population of working age population remaining the same. The reduction in the number of child aged residents has been balanced out by the increase in those residents in the over 65 years cohort. In 2011 the over 65's accounted for 14.3% of the population. By 2019 this had increased to 22.8%.

### 2.2.2. Future Directions

#### Total Population

The population of the Island of Mauritius is predicted by Statistics Mauritius to fall slightly over the plan period to just under 1.13 million in 2040. This represents a fall of 7.6%, with most of this decrease occurring during the second half of the plan period (refer to Figure 2).

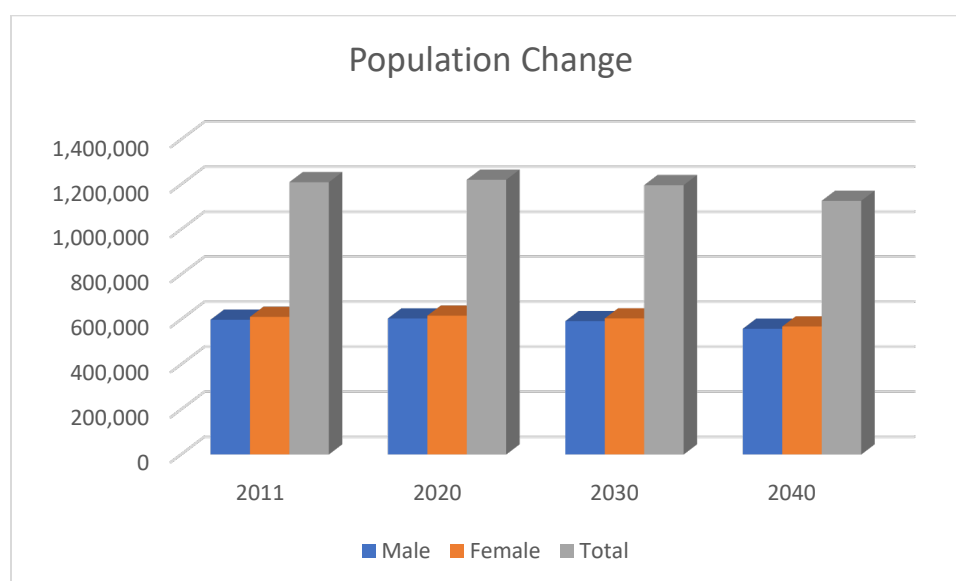


FIGURE 2 POPULATION CHANGE 2011-2040 ISLAND OF MAURITIUS

#### Ageing Population

Government projections imply that seniors defined here as persons aged 60 and over who comprised just under 17% in 2018 will make up over 30% of the total population by 2043, an increase of 132,000 (around 41%) over the plan period. At that time there will be an additional 132,00 persons over 60 years of age resident in Mauritius. Those 80 years and above see the sharpest rise in numbers from just under 24,000 in 2020 to 52,000 in 2040 a rise of 120%. In contrast, student numbers (age groups 05-19) who made up just over 20% of the population in

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2018, will fall to 15% by 2043 equivalent to a reduction of 85,000 children of school age (refer to TABLE 1 and Figure 3).

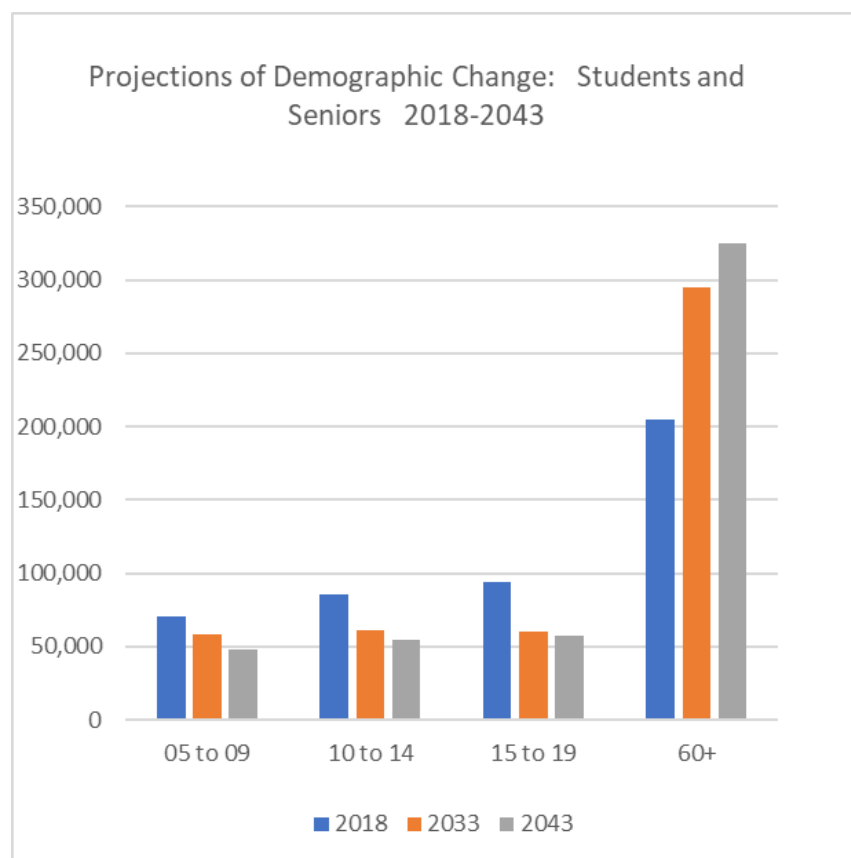


FIGURE 3 PREDICTED ECONOMIC CHANGE IN MAURITIUS

### Working Age Population

As the population ages and the fall in birth rates experienced since 2003 works through the system, the working age population<sup>1</sup> is predicted to fall by around 15% between 2020 and 2040<sup>2</sup>. This brings Mauritius broadly in line with the current average of OECD countries which stood at 66% in 2012.

<sup>1</sup> Working age population is defined by the OECD as those aged between 15 and 64

<sup>2</sup> Figures quoted in this section are from Statistics Mauritius for the whole of Mauritius, including Rodrigues

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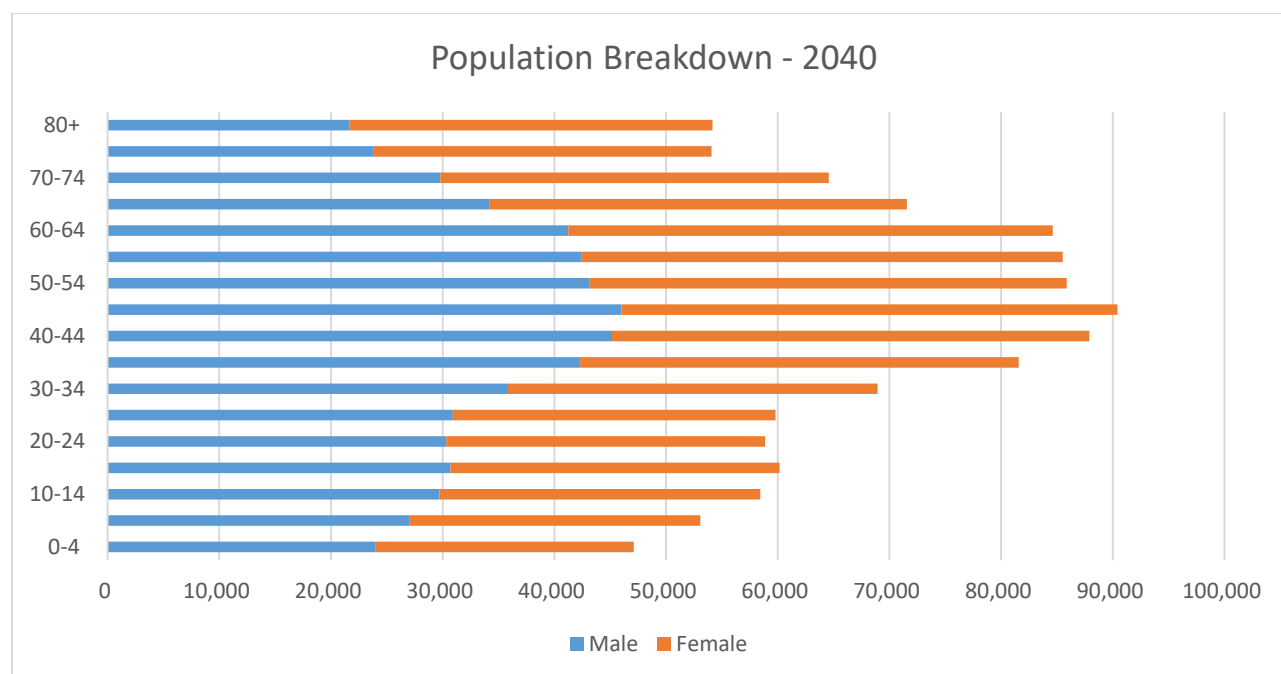


FIGURE 4: PREDICTED DEMOGRAPHIC PROFILE OF MAURITIUS IN 2040

AGE GROUP	2018 (,000S)	2033 (,000S)	2043 (,000S)
05 - 09	70.82	60.80	50.00
10 - 14	85.64	63.26	56.12
15 - 19	94.23	62.74	58.97
Sub Total	250.69	186.80	165.09
Seniors	204.59	306.04	336.71
Total Population	1,222.34	1,183.99	1,103.05
Students as (%) of Total	20.51	15.78	14.97
Seniors as (%) of Total	16.74	25.85	30.53

TABLE 1: PROJECTION OF DEMOGRAPHIC CHANGE IN SELECTED AGE GROUPS 2018-2045 (SOURCE: STATISTICS MAURITIUS, 2019)



### Demographics: Summary of Key Trends

- Population is predicted to peak during this decade before falling over the plan period.
- There will be a continuation of the trend of an ageing population with significant increase in the number of older residents and fall in the number of younger residents.
- Fall in the working age population.

#### 2.2.3. Population Density across the Island

The latest population information by census area is the 2011 Census. In 2011 the Island of Mauritius has a population of 1,196,383 in a land area of 1,865 sq. km. This represents a population density of around 641 persons per sq. km. This puts Mauritius in the top ten most densely populated countries in the world. There are variations in population density across the island. The towns of Beau Bassin/Rose Hill, Quatre Bornes, Curepipe, Port Louis and Vacoas/Phoenix along with 8 other Village Census Areas make up over half of the population of the island. Mahebourg VCA having the highest population density of 6,775 persons per sq. km. A further 42 VCAs have population densities higher than the average for the island with Mare Chicose VCA having lowest population density at less than 21 persons per sq.km.

The towns/ VCAs that account for half of the population make up only 11.5% of the land area of the island. This concentration of population is further emphasised by the fact that 90% of the population lives in towns/VCAs that cover 50% of the island. This indicates that Mauritius is a highly urbanised country.

Outside of the conurbation and its immediate hinterland (the peri-urban area) there are four VCAs that fall within the highest population density VCAs. As mentioned above Mahebourg is the VCA with the highest population density and is located in the south east of the island just to the north of the airport. With an area of just 0.12% of the island it accounts for 1.27% of the population.

New Grove VCA is the next most densely populated standalone VCA. New Grove is located to the south east of the conurbation mid-way from the southern end of the conurbation at Curepipe to the airport. New Grove forms part of a larger linear settlement located either side of the old airport road. The settlement has seen smaller settlements merge and now that also contains towns such as Rose Belle which is located in a VCA with a population density of nearly double the national average.

Ecroignard VCA is located in the rural east of the island and is principally made up of the settlement of Centre de Flacq. Despite the large rural portion of the VCA the density of Centre de Flacq settlement means that it has a population density of over 1,600 persons per sq. km.

The other standalone VCA is Triolet VCA. Located in the Pamplemousses District to the north of Port Louis the Triolet VCA accounts for nearly 2% of the Island's population. The settlement is linear in form, located along the A4 road.

## 2.3. Household Change

Despite the fall in total population between 2020 and 2040 there is projected to be a growing demand for housing across the island. This is primarily driven by the fall in average household size. Projected household growth is estimated to be around 45,000 households between 2020 and 2040 with a demand for around 47,000 new dwellings over the same period. The difference is based on the number of vacant units and second homes remaining the same as a proportion of total homes. This does not consider the anticipated shortfall of housing units delivered since 2011 to meet the projected demand in 2020, thought to be in the region of 23,000 dwellings.

	2011	2020	2030	2040
Total Population	1,252,400	1,263,000	1,240,000	1,170,000
Average Household Size		3.25	2.97	2.70
Total Households	348,266	388,615	417,508	433,333
Allowance for multiple household		(6,000)	(6,000)	(6,000)
Units occupied on permanent basis	347,871	382,615	411,508	427,333
Allowance for Vacancy 3%		11,478	12,345	12,820
Allowance for Second Homes 5%		19,131	20,575	21,367
Total Housing Demand (2011 Supply)	347,500	413,225	444,429	461,250

TABLE 2 TOTAL HOUSING DEMAND

## 2.4. An evolving and growing economy

Although global economic trends have had and are having far-reaching implications for Mauritius, not least because of the 2008 Financial Crisis, real GDP had been increasing, and between 2015 and 2019 an annual average rate of growth of 3.7% has been achieved. This positive outlook was justified by the fact that growth is becoming more broad-based to address the Government's over-riding aim for an inclusive, high income and green Mauritius. The

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impact of the Covid-19 pandemic is still not fully known with a fall in GDP anticipated with the Tourism and Hospitality industries expected to be hardest hit.

Going forward a key component of growth is the drive towards a knowledge-based economy: the service sector (excluding construction) has shown a significant increase in jobs since 2003 (+125,000 or 68% of the 2018 total) (refer to Table 3). To underline the importance of this sector in the economy, employment increased by just 78,000 to reach a total of 573,000 by 2018 (or 47% of total population).

The construction industry which was in a lingering recession is now one of the fastest growing sectors of the economy. For 2019, the construction industry was expected to maintain its regained dynamism with a GDP growth rate of 8.6%.

The other side of the economic story can be seen in agriculture, which has seen a net loss of around 3,000 jobs since 2003. This includes the much bigger loss of 7,500 jobs from sugar cane production, which has only partially been offset to some extent by increases in other non-sugar agricultural sector employment.

In manufacturing the decline has been much more drastic, with just under 40,000 jobs disappearing, mainly from EPZ based textiles. By 2018 agriculture was making up 7.5% of total employment and manufacturing just 17%.

These sectoral transformations have been on-going since before 2003. , A key characteristic of the economic change in Mauritius has been the drive to adopt new technologies and enter new market segments through product diversification and process re-engineering including opportunities. Key new markets include precision engineering, technical textiles, medical devices, agro-processing, aqua-tech and bio-technology. High growth SMEs and industrial parks, data technology driven industries, medical hubs, life sciences, wellness and medical tourism, knowledge education and higher education hubs plus eco-and heritage tourism are all being promoted through Government strategies.

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INDUSTRIAL GROUP	EMPLOYMENT (000)		
	2003	2011	2018
Agriculture, Forestry, Fishing <sup>3</sup> (1) (Sugar Cane)	46.4 (19.7)	49.3 (14.7)	43.2 (12.1)
Manufacturing (Textiles/EPZ)	136.2 (81.6)	111.4 (54.2)	97.4 (46.6)
Construction	45.5	52.5	40.2
Services (Retail & Wholesale) <sup>4</sup> (2)	267.4 (96.4)	346.5 (139.1)	392.3 (137.7)
Total	495.5	559.7	573.1
Total Population	1,186.3	1,192.3	1,222.3
Activity Rate (%)	41.8%	46.9%	46.9%

TABLE 3: EMPLOYMENT BY MAJOR INDUSTRY GROUP 2003-2018

### The Economy: Summary of Key Trends

- Pre Covid-19 trend of sustained increase in GDP.
- Decline in Agricultural employment with major decline in sugar cane employment.
- Increase in non-sugar agricultural employment.
- Decline in manufacturing employment.
- Major increase in service sector employment.
- Continued drive to modernise the Mauritian Economy.

<sup>3</sup> Includes mining & quarrying

<sup>4</sup> Includes hotels/accommodation & restaurants/food services

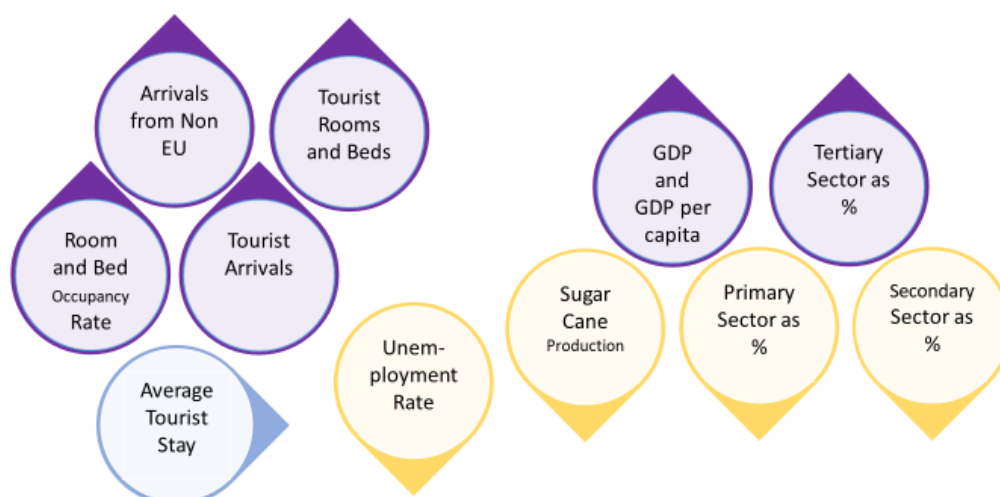


FIGURE 5: KEY ECONOMIC TRENDS SINCE 2003

## 2.5. Addressing issues of poverty and disadvantage

### 2.5.1. Government Strategy

The Government has several key objectives in addressing poverty and disadvantage in Mauritius. Combating poverty and bringing higher levels of growth, equality, and shared prosperity to improve the standard of living of the population to achieve an inclusive, high income and green Mauritius remains one of the priorities of Government.

Education is also at the core of Government's inclusiveness agenda with plans for education infrastructure at primary, secondary and tertiary levels to be further upgraded. Also, key is the desire to improving health care services for all and to promote health and wellbeing through social, cultural and sports activities. On housing the Government announced in the 2020 budget a significant programme for affordable housing delivering 12,000 new social houses in the short term.

### 2.5.2. Demand for new social infrastructure

Due to improvements in the national economy, there has been an uptake in demand for private education facilities. These facilities often act as draws for higher end family housing. It is therefore important that they are located where such housing is already planned.

The ageing population profile is likely to increase demand for a range of health services and associated social and community facilities. This will include private and specialised healthcare facilities.

Many of these new facilities are likely to require or reflect different site location parameters including proximity of quality safe, local environments and high levels of accessibility including convenient walkability from housing and apartment clusters to community facilities and commercial complexes.

To help meet demand for safe and accessible social and community facilities NLDS policies should help promote the Government's National Regeneration programme by securing a holistic approach to urban and rural regeneration schemes, including bus terminal redevelopment. Regeneration schemes should consider opportunities for adaptive re-use of existing or vacated sites and buildings for community facilities and ensure their integration with local MSME workspaces and provision of affordable homes including sheltered accommodation and usable public realm for families within a convenient and safe public transport and walkable footpath network.

## 2.6. Climate Change and a fragile environment

Climate change presents a major threat to sustainable development as its far-reaching impacts disproportionately burden the poorest in society, delay settlement and infrastructure growth and degrade the most vulnerable environments. There is a need for sound planning to build the island's resilience to the impacts of climate change incorporating a range of actions involving food security, water security, energy security and environmental security. As Mauritius is a party to the UN Framework Convention on Climate Change 1992 and the Kyoto Protocol 1999, climate concerns and adaptation responses need to be integrated into relevant development strategies and policies to help the country achieve its Sustainable Development Goals (SDGs).

As a Small Island Developing State (SIDS) Mauritius is very exposed to natural disasters and extreme weather events. A comprehensive response mechanism exists but more emphasis should be given to risk reduction as well as disaster response. It should be stressed that response to a disaster can be before the event not just afterwards. There is therefore a need to enhance the resilience of the landscape to natural disasters through design-based risk reduction. The National Climate Change Adaptation Policy Framework for the Republic of Mauritius 2012 reported that spatial planning and land management play an important role in risk prevention, by limiting development in flood prone areas, and by encouraging flood risk-sensitive land use and management practices. This means among other actions, protecting and enhancing natural water systems, with new developments incorporating sustainable drainage measures that slow down discharge from sites to prevent downstream flooding.

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Mauritius is very dependent on fossil fuels for energy generation and imports coal and diesel. These generate CO<sub>2</sub> and other greenhouse gases (GHGs). To be eligible for Green Climate Fund soft loans and grants the country's commitment to reduce GHGs needs to be ensured. To address the issues faced by Mauritius and for it to meet its international obligations there is a need to plan positively for renewable energy provision to improve energy self-sufficiency.

Mauritius has an ambitious renewable energy program and is developing solar, onshore wind, offshore wind, and wave energy, though the potential for further hydropower may be limited. The country plans to shift to LNG, a cleaner source of fossil fuel, and to achieve 35% and 40% of renewable energy in the electricity mix by 2025 and 2030 respectively. This action is in line with the Rio +20 declaration on climate change and is also in line with the NDC of Mauritius, submitted to the UNFCCC in the context of the 2015 Paris Agreement on climate change (Renewable Energy Roadmap 2030 for the Electricity Sector). It is anticipated that the new LNG plants will require an area of about 15 hectares.

There are many environmental assets located throughout the island of Mauritius. Sites are under development pressure and environmental stress from a combination of factors including land use development and environmental change. Mauritius is party to international agreements that seek to preserve and increase the percentage of land that is protected under Environmental legislation. The Protected Area Network (PAN) in Mauritius is around 4% of the terrestrial land area compared with Aichi Biodiversity Target (Target 11 of the Strategic Plan for Biodiversity 2010-2020) of at least 17% of terrestrial and inland water areas (and 10% of coastal and marine areas) to be protected by legislation.

Continuing and enforcing protection and conservation of the most vulnerable natural environments, cultural heritage sites and scenic landscapes including Environmentally Sensitive Areas (ESAs) protected in legislation whilst setting out clear and unambiguous conditions for permitting development on other sites is an important challenge for responsible authorities. Incrementally increasing the amount of land under afforestation, creating biodiversity zones managed through local community partnerships, ecological re-use of abandoned sugar lands and enhancing national and regional green and blue infrastructure networks, green space and usable open space provision in new developments can all contribute to mitigating climate change effects.



## **2.7. Delivering a modern infrastructure network to support Sustainable Development**

With an ageing population the demands on the healthcare system for a wide range of affordable and inclusive health care facilities (both general hospital services and specialist clinics) are predicted to rise. Quality of lifestyle improvements in healthy living and eating supported by Government investments in new or upgraded multi-purpose leisure parks, recreation centres and sports complexes and allocation of agri-tech neighbourhoods and bio-farming zones near villages and towns can mitigate these demands and contribute to sustaining local communities, jobs and skills.

One of the key aims identified in the Government's 2020 Budget is the acceleration of housing programmes for both low- and middle-income families with special focus on the needy and vulnerable within a sustainable living environment. To help achieve this aim Government will uplift and modernise existing social housing units, including ex-CHA housing states and NHDC apartment blocks and improve facilities for the elderly such as day care and recreational centres.

Although solid waste disposal is a major issue in Mauritius responsible authorities have drawn up plans to use available land and facilities for vertical and horizontal expansion to address current and short-term demand, while considering land adjacent to the current facility to meet longer term needs. Local communities have been involved in the process which has included consultations on the remediation measures and ameliorative actions to compensate for adverse environmental effects and social disturbances the operations have created.

Large parts of the island remain without access to the networked sewerage system despite significant investment in the system. The investment will continue in both the conurbation and rural areas as more households are connected to the system. Investment in the water supply system will also continue with construction of new dams and water treatment plants alongside with the installation of mobile treatment plants to serve remote communities.

## **2.8. Delivering Quality of Life for All**

It is important that Mauritius provides safe, attractive environments for all its residents. This provision extends beyond housing to include access to open space, retail, leisure, education and healthcare facilities. It also includes the provision of public transport so that those without access to a car are not excluded because of their location or income level. Accessible public

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realm can greatly enhance quality of life for all residents including families, the elderly and those from other vulnerable groups including those with disabilities. Through the co-location of key social and community facilities, people can make linked trips so that less time is spent travelling and trips are more convenient and safer for students, seniors, and the local community.

In and around town and village centres there is a need for reinforcing protection and enhancement of public open spaces, especially where the few remaining green spaces, pocket parks and smaller tracts of open land and sites such as spiritual parks and their settings are coming under increasing pressure from encroachment.

Sustainable development policies should also target removing or retrofitting substandard buildings and infrastructure and replacing them with modern facilities to enhance the overall quality of life. The introduction of environmentally-sound technologies and resource-use efficient facilities that meet the demands of people today and enable a cleaner, greener Mauritius in the future is to be promoted. Greener personal travel and supply chain logistics systems, together with increased internet shopping and delivery services or greater opportunities for on-line working will change how everyday tasks are performed. With more choice, the importance of quality and sense of place is increased if places are to survive and thrive in the future.

## **3. Vision and Key Development Principles**

### **3.1. The Evolution of the Strategy**

According to the Government Programme 2020-2024, to achieve its development goals towards an Inclusive, High income and Green Mauritius, it will be crucial to have a strong strategy to optimise the use of land. The Government has set out a broad strategic vision within which the National Land Development Strategy provides the land development planning framework. The new National Land Development Strategy will be based on a sustainable development approach to land use, founded on the broad spatial strategy of the 2003 National Land Development Strategy. This will allow for an overall ecological urbanisation policy, as well as revised and updated Outline Planning Schemes and Planning Guidelines for all regions.

There are several key strategy drivers that will shape the strategy as it responds to the challenges outlined in section 2.

### **3.2. Government Vision**

Key policy directions from the Government Programme 2020-2024 and its post Covid-19 Budget 2020 have influenced the preparation of the new 2040 National Land Development Strategy. Based on these policy directions it is considered that the Government's vision for an inclusive, high-income, and green Mauritius requires a balanced and holistic land use development approach that values and includes diversified economic growth alongside social and community well-being for all Mauritians and protection and conservation of its natural environment and cultural heritage assets for the benefit of existing and future generations.

Among other Government and private sector- led initiatives, commitments to a transformative knowledge, skill and data-based service sector, innovatory agri-tech and food security-focused enterprises and community-based authentic eco-tourism promotion will be required within a regime of ridge to reef environmental protection, conservation, and management.

Underpinning these measures and initiatives there will need to be provision for broad ranging and inclusive quality of health and continuing learning, with safe, affordable, and resilient transport and utilities facilities and systems to connect and support people, goods, and services.

In responding to these key Government aims and initiatives and the challenges posed by structural changes in population and workforce expected over the next 20 years the new

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National Land Development Strategy will have a leading role to play in the future direction of land development in the Conurbation, Countryside, and the Coast.

In land use planning terms this will include making more efficient and environmentally-sound use of existing sites, buildings and technologies and committed schemes before new greenfield sites and lands are considered or developed. The new NLDS rolls forward the aims of the 2003 Strategy for compact, resilient, and low-impact growth and provision of public services to reduce urban sprawl, promote social cohesion and protect and conserve the environment. The Government's National Regeneration Programme and developer incentive schemes are important considerations especially post Covid-19 when near-term public sector resources both in Mauritius and internationally are likely to be constrained.

The new NLDS also recognises the need for flexibility in its planning approach to accommodate new land development demands from a knowledge-based and environmentally-conscious society. There will be a need for new and adaptive forms of workspaces, living environments and wellbeing facilities that value and respect the conservation of the country's natural and cultural heritage and traditions predominantly in the countryside and coast in a similar light to state of the art high -tech and ICT activities, smart homes and international grade public transportation and utility systems in and around the conurbation.

In overview, the following policy issues need to be incorporated into the spatial and land-use planning strategy of the National Land Development Strategy:

- The aging population profile will impact and increase demand for a wide range of affordable and inclusive health care facilities (both general hospitals and specialist clinics), learning and retraining/reskilling needs, safe and secure housing types, walkable, usable public open spaces, and related community facilities.
- In support of the Government's drive for a more inclusive, healthier, and better quality of lifestyle for all its citizens, National Land Development Strategy policies need to achieve a better balance and range of recreational, indoor, and outdoor sports and well-being facilities in both urban and rural areas especially where facilities can be co-located for shared and convenient use by students, seniors, and the local community.
- To help meet demand for safe and accessible social and community facilities National Land Development Strategy policies can enable and support public transport/Metro Express/urban and rural terminal regeneration by facilitating integration with new town and village centre- based sheltered/secure residential apartment complexes and retrofitting resource use-efficient sites and buildings.

- As student enrolments fall and demand for new school buildings decreases especially in the primary and secondary state education sector, there will be potential for dual use or adaptive re-use of existing but underused school buildings, facilities and sites, especially where these are well-located with respect to public transport services and safe and convenient footpath networks.
- To help achieve national policy aims for a knowledge-based economy as well as address future demand for adult/seniors' continuing education, there will be an increasing need for a broad range of tertiary level education services and specialist vocational training (e.g., in food security sectors such as agri-tech and aqua-tech and environmentally-sound technologies such as renewable energy incubators).
- Increasing demand for these knowledge-based services can be addressed through conversion of disused or redundant buildings as part of town centre regeneration schemes where good public transport access and facilities are available e.g. the Metro Express/urban terminal programme with integrated bus stands, or are being promoted through Smart City or expansion zone schemes such as Medine's Unicity Smart City campus at Cascavelle in Black River district.
- High capacity integrated public transport networks and services as well as safe and convenient footpaths and cycleways will be required to sustain the education cluster at Reduit and its expansion eastwards via satellite educational villages at Moka Smart City and Cote D'Or Smart City, with strong transport connectivity to the parent campus. A metro link to connect the clusters to the main conurbation public transport spine via Rose Hill and Ebene/Cyber City would be essential.
- In and around town and village centres there is a need for reinforcing protection and enhancement of public open spaces, especially where the few remaining green spaces, pocket parks and smaller tracts of open land and sites such as spiritual parks and their settings are coming under increasing pressure from encroachment.

### **3.3. Key Themes**

#### **3.3.1. Introduction**

The Spatial Strategy is based on several key themes that together provide the basis for the spatial strategy policies and sector-based policies. The key themes are:

- Hierarchy of Centres
- Conurbation and Urban Extension
- Neighbourhoods
- Rural Revitalisation
- Environment and Coast

#### **3.3.2. Hierarchy of Centres**

The towns that make up the conurbation together with the City of Port Louis have long provided the urban structure of Mauritius. The strategy builds on the existing urban structure together with recognising planned urban expansion into Cote D'Or as set out in the 2003 National Land Development Strategy, together with an expansion north of Port Louis. The relationship of centres to each other and relative position in the hierarchy is an example of a polycentric urban structure. This polycentric structure has been reinforced by the development of the Metro which connects these centres with high quality public transit.

The hierarchy is made of three levels of centres in the urban area and two in the rural area illustrated in Figure 6. The urban centres are:

- Urban:
  - Metropolitan Centres,
  - Urban Centres and
  - Local Centres,
- Rural:
  - Primary Rural Centres, and
  - Rural Centres.

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FIGURE 6 HIERARCHY OF CENTRES

### Metropolitan Centres

The highest-level centre in the urban area is the Metropolitan Centre. The three Metropolitan Centres of Port Louis, Ebene and Cote D'Or will drive national economic growth with a focus on strategic facilities and services, while adding and integrating new residential development to stimulate 24/7 living, working, studying, and playing. This centre typology is expected to have all the elements found in the lower order centres plus higher order (strategic) uses shown in Figure 7 such as central government institutions, regional and international commercial offices and iconic HQ buildings, national level as well as specialist niche leisure and entertainment



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attractions, large business hotels and comparison retail. The Metropolitan Centres should also have a high level of national accessibility with multi-modal transport interchange and specialist regional-level further education facilities. The walking catchment for such centres would be 800m or 200ha with a higher than average level of public transport accessibility being provided.

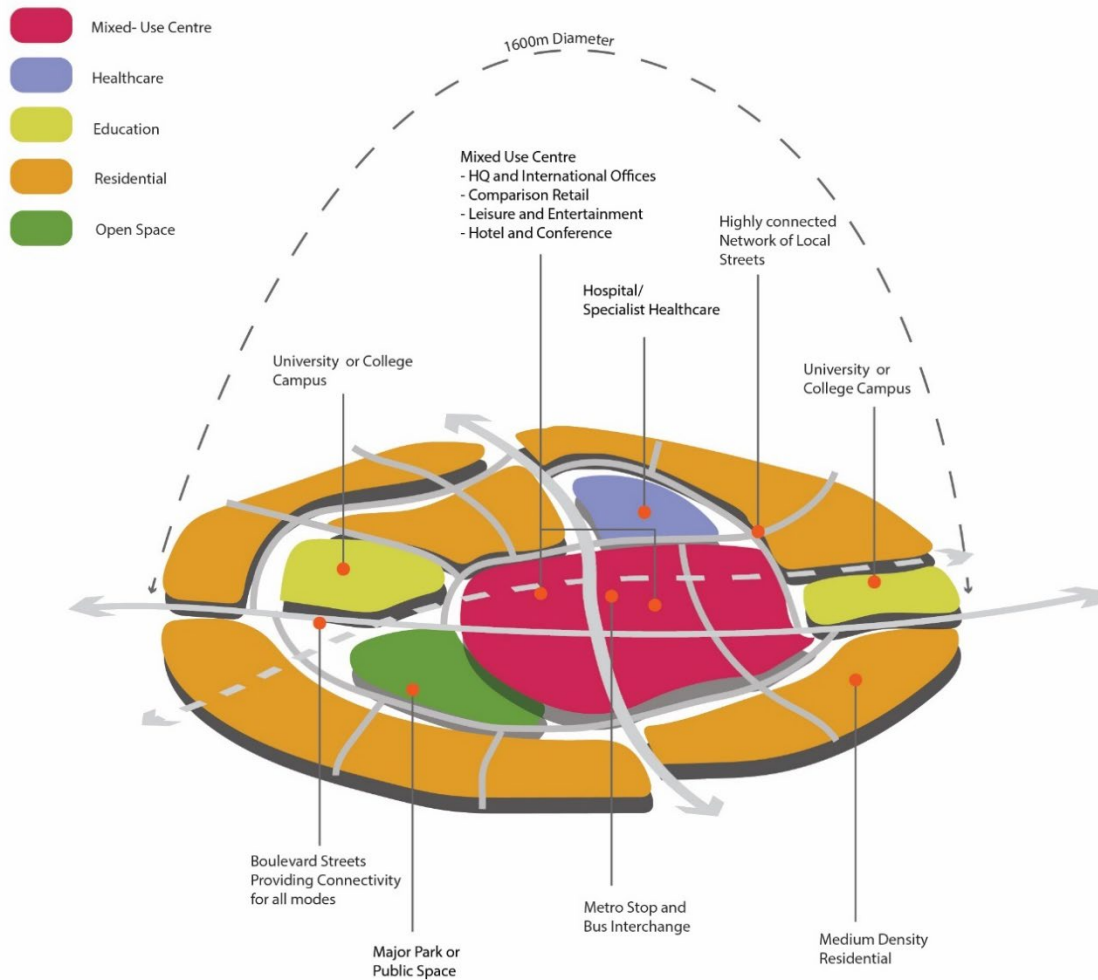


FIGURE 7 TYPICAL LAND USE MIX FOR METROPOLITAN CENTRE

### Urban Centres

Urban Centres will be typically located at the existing Town Centres and provide the focal point for residents of that area. They are important places as they provide the sense of identity for residents in the conurbation. Unfortunately, many centres are not fulfilling their role as competition from Malls has resulted in many to spend less time in their town centres.

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The centre will have a walking catchment of around 400m radius or 50ha. A wider catchment by car and public transport will be likely with catchments often overlapping. Some Urban Centres will also be the main centre for residents in the rural area in the peri-urban area just beyond settlement boundaries.

Urban Centres will be typically located at the existing Town Centres and provide the focal point for residents of that catchment area. They are important places with well-established buildings, bus stands and market fayres that provide the sense of identity for residents in the conurbation. Unfortunately, many centres are not fulfilling these roles and have lost trade to more modern and attractive edge of town shopping malls and commercial complexes which have increasingly attracted residents with cars, especially at weekends.

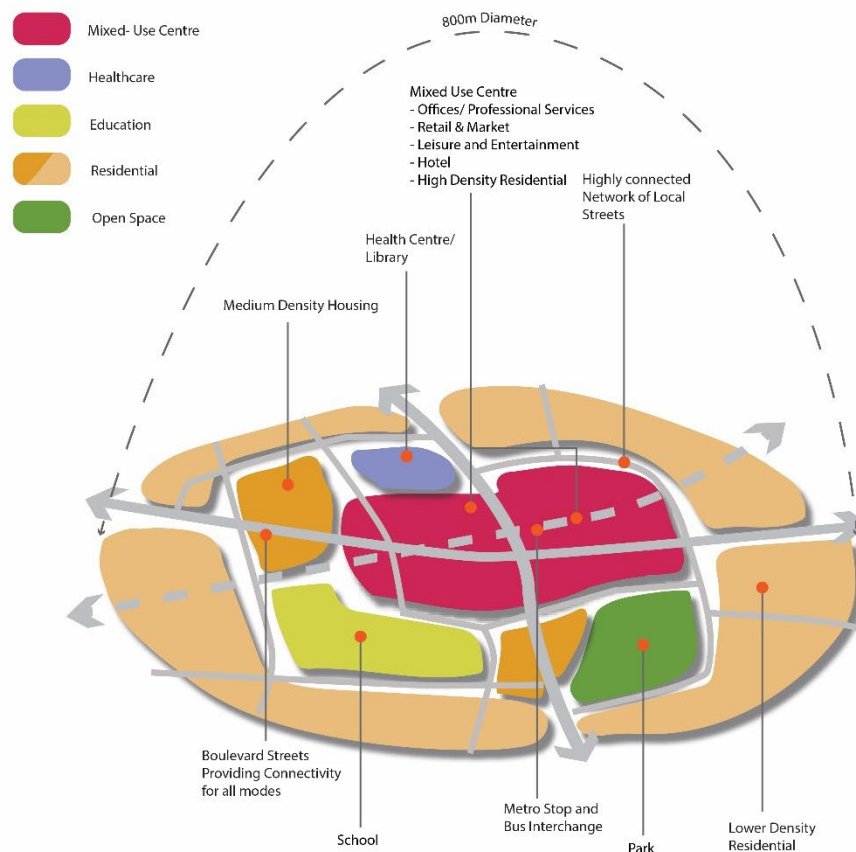


FIGURE 8 TYPICAL MIX OF USES IN URBAN CENTRE

### Primary Rural Centres

Primary Rural Centres play an important role in the rural area providing services for both the settlement and the wider rural area. The walking catchment for the Primary Rural Centre is typically 400m but due to their specific location and wider rural catchment, accessibility by car and public transport, would have a much greater reach. As a result, Primary Rural Centres will accommodate services and facilities not normally seen in settlements of their size. They will expect to host workspaces including agri-tech and eco-tourism incubators, large scale convenience retail, cafés restaurants, markets, small specialist retail, health centres and small hospitals. They are likely to be within walking distance of a secondary school and be served by a modernised and integrated bus terminal. The centres should be walkable with through traffic limited by enforcement of traffic demand management measures.

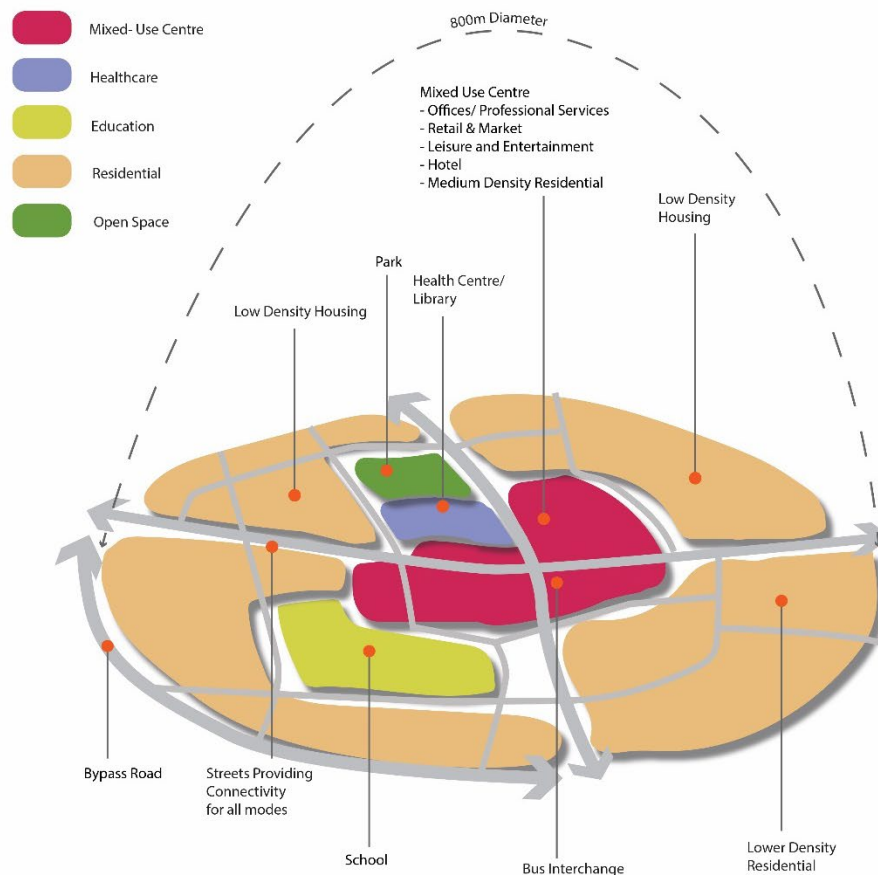


FIGURE 9 TYPICAL MIX OF USES IN PRIMARY RURAL CENTRES

### Rural Centres

Rural Centres will have a walking catchment of around 200m but a much wider catchment for cars and public transport. The centres are important focal points for the settlement and surrounding rural catchment. They will typically have small office and commercial premises, including retail, together with small scale healthcare. A public space or local park will typically be provided. In some instances, a small market will be provided with an emphasis on selling local produce. The typical mix of uses is illustrated in Figure 10 **Error! Reference source not found..**

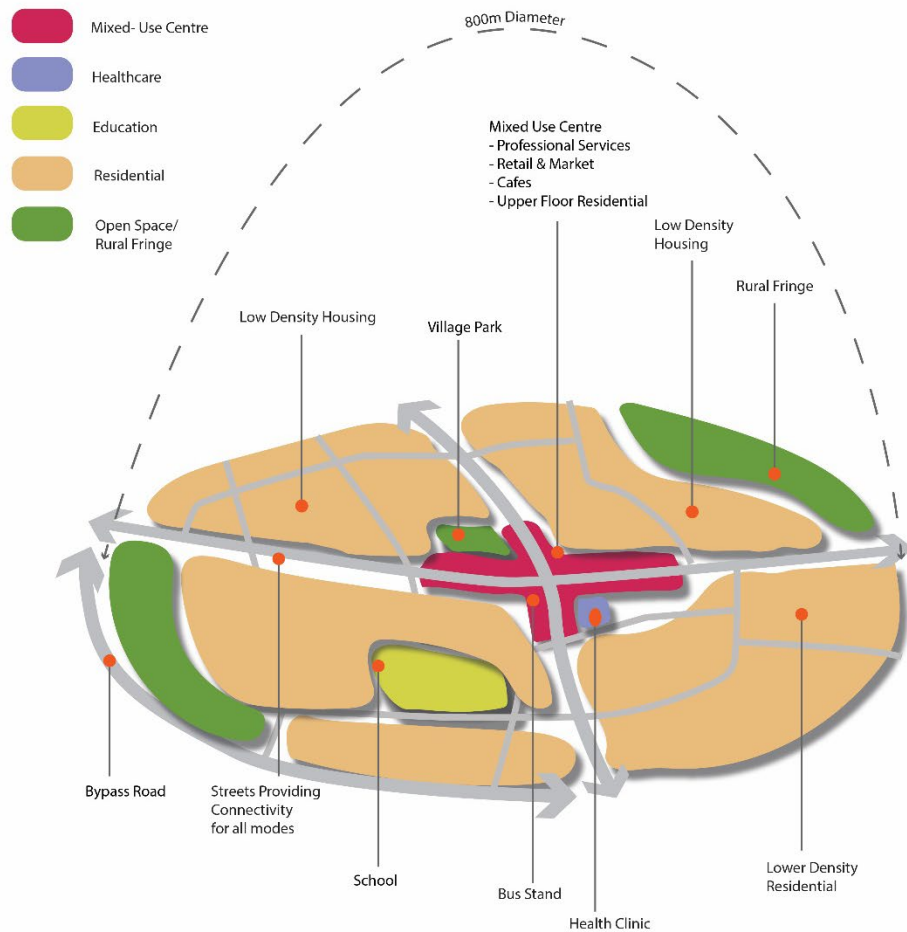


FIGURE 10 TYPICAL MIX OF USES IN RURAL CENTRE

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### Local Centres

The Local Centre plays an important role at the local level in the urban area. The catchment will have a walking catchment of around 200m or 12.5ha. Local Centres in Urban Areas are not identified in the National Land Development Strategy but will expect to be identified as part of the Outline Planning Schemes. They will typically be centred around a cluster of retail units and client facing professional services.

### **3.3.3. Consolidation and intensification of the Conurbation alongside strategic urban extension**

Mauritius has a population density of around 641 persons per sq. km. placing it in the top ten most densely populated countries in the world. There are variations in density across the island with over half of the population living in census areas covering less than 12% of the total land area. A reduction in average household size together with a fall in population will result in a fall in density in urban areas unless sensitive intensification and infill is achieved. The strategy objective is to retain population density in the Urban Areas through smart redevelopment of underused sites whilst enhancing the public realm. The Metropolitan and Urban Centres will play key roles in meeting this objective.

### Continued Renewal of Port Louis

Port Louis has seen significant investment in the waterfront area with the development of Caudan and the national theatre. Further development of Les Salines is proposed bringing increased residential opportunities to the Capital City. Less successful has been the renewal of the CBD with many sites still vacant and underused with many historically significant buildings in poor condition. The significantly enhanced connectivity by virtue of the Metro provides a renewed catalyst for the regeneration and revitalisation of Port Louis. Investment in public realm and public space is needed together with improving air quality and pedestrian connectivity through the relatively compact core of the City.

The continuing market demand for offices in Port Louis CBD, will be met through the regeneration of older sites whilst maintaining the capital's cultural heritage. Port Louis will continue to be promoted as the principal centre for Government administration, culture and leisure entertainment alongside the emergence of other Metropolitan Centres and renewal of Urban Centres.

### A Diversified Ebene

The intensification of office space and jobs at Ebene Cyber City should be combined with a diversification of land use, to include residential, further retail together with community facilities such as health care and multi-modal public transport accessibility. The planned

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economic growth centre at Cote D’Or Smart City will be part of a mixed-use development masterplan that complements and supports Ebene Cyber City, creating two new Metropolitan Centres over the plan period.

### Sustainable Urban Expansion

It is anticipated that the strategic land use and transport extension of the conurbation eastwards to integrate the planned growth at the Reduit Triangle, Moka Smart City and Cote D’Or Smart City will accommodate much of the major urban growth demand over the next 20 years. Together with other Smart Cities already in the pipeline, there is no demand for further major expansion beyond these planned strategic growth areas. Further expansion of the Metro Express to the north, south and east is proposed to ensure that most of the conurbation population are within proximity to key employment, health and education centres and where practicable integrated mixed use urban terminals.

### Accommodating New Economic Opportunities

Within the conurbation opportunities for new economic activities such as Data Technology, MSME incubator and innovation sector jobs linked to transit-oriented developments will be promoted. Further development at existing retail malls needs to be considered in the light of the opportunity they could offer as potential anchors of new centres over the long term, recognising their existing offer in retail and leisure experience. Access to public transport is key to ensuring the malls are accessible to all, with priority given to those sites with good public transport connectivity.

On-going upgrading of the international port capacity and development of commercial activities will require the need to safeguard strategic access and enhancing, storage, warehousing and distribution facilities and networks. Ensuring resilient strategic connectivity to the Port in Port Louis whilst reducing the impact of heavy goods vehicle movements on the urban environment of the Capital City is a key challenge for the National Land Development Strategy.

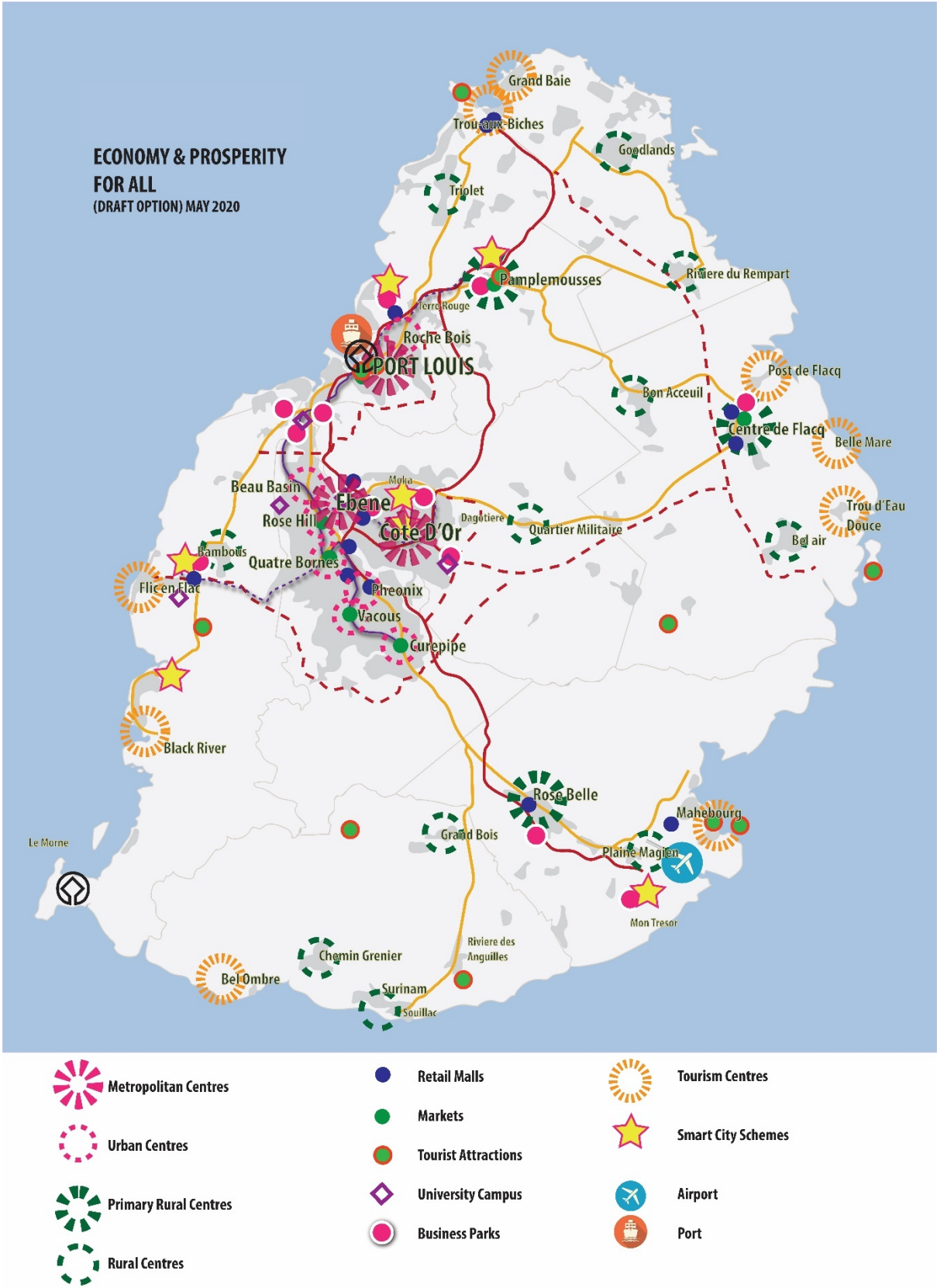


FIGURE 11 KEY HOUSING AND ECONOMIC GROWTH AREAS

### 3.3.4. An Island of Neighbourhoods

The neighbourhood unit will be used as the main structural component of all settlements, formed around the planned hierarchy of centres. The conurbation will be made up of many highly integrated neighbourhoods, most of which are well defined by those who live there, recognising that the conurbation is made up of numerous settlements that have expanded and coalesced. Typical neighbourhood size is between 50 and 100ha or 5 to 7 minutes' walk from the edge of the neighbourhood to the centre. Greater emphasis will be placed on creating neighbourhoods that meet the increasing demand for better quality lifestyles for the aging population through the provision of a range of public services and community facilities. These will include:

- Sheltered accommodation, retirement homes and integrated public health support services for seniors.
- Improved and enforced traffic/demand management measures to control traffic congestion and minimise noise and air pollution in all of Mauritius' neighbourhoods.
- Enhanced bus services and revamped mixed-use terminals in the main towns and rural centres.
- Upgraded, well- lit safe and convenient public footpaths resting places and public conveniences.
- Usable green space with plant-a-tree promotion schemes led by community-based NGOs.
- Utility infrastructure to sustain town centre attraction and viability such as effective year-round area-wide drainage networks, effective PPP-led solid waste management regimes, joined- up pedestrian pavement networks and safe street initiatives involving street and pavement lighting, safe crossing points and community-based public art and urban townscape improvement programmes.

More flexible zoning at the local planning level to enable more compact forms of mixed-use urban lifestyles especially for single persons, seniors and small families will be encouraged.



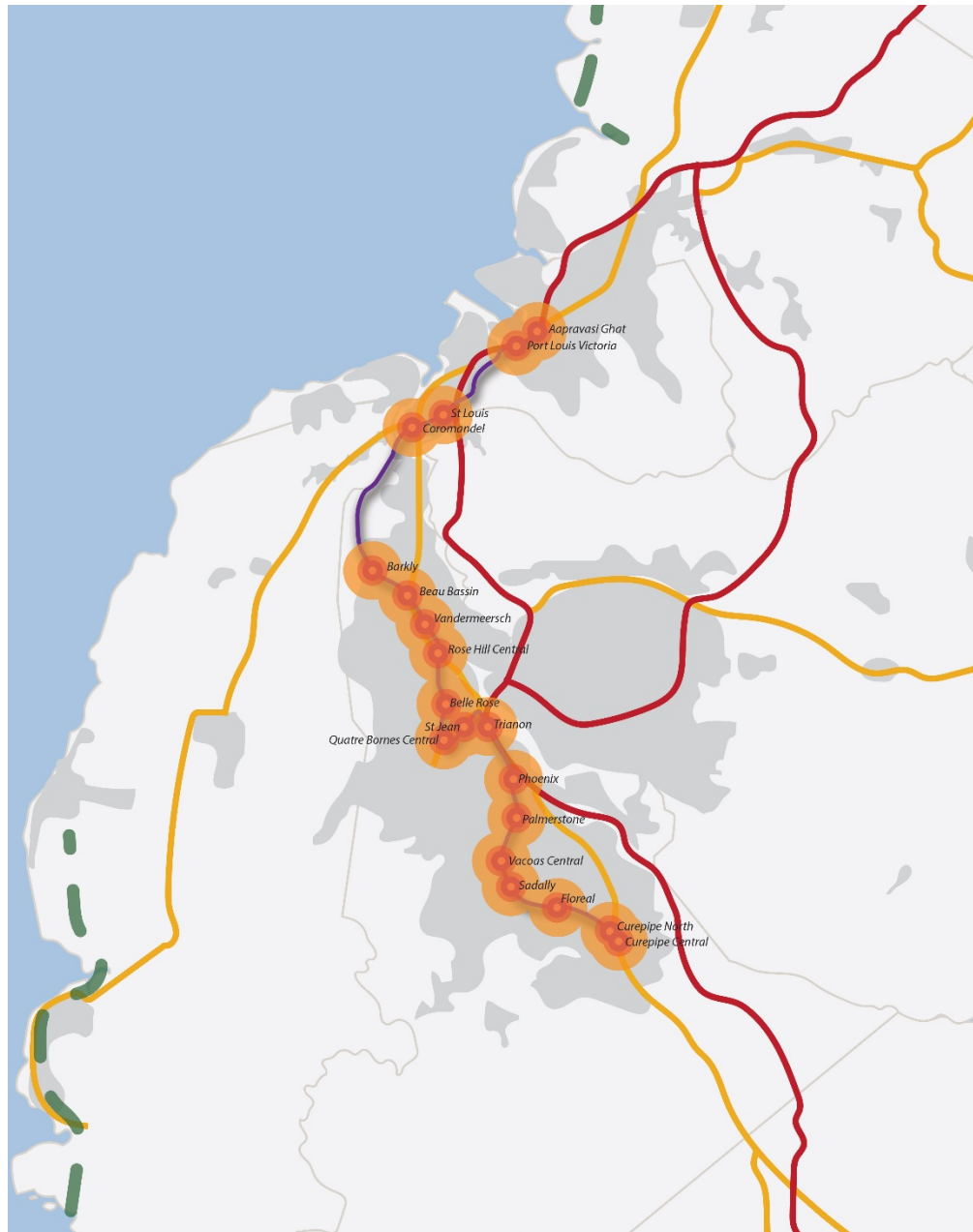


FIGURE 12 WALKABLE NEIGHBOURHOODS AROUND METRO EXPRESS STATIONS

### 3.3.5. Revitalisation of Rural Communities

The polycentric spatial structure extends to the rural area, recognising the important role that rural towns and villages have in providing employment, health, education, and other social infrastructure to the rural population. The spatial structure is based on the hierarchy of centres set out previously in this section.

There is a need to recognise the tension that exists between the strong pull of the conurbation for employment versus the strong community ties that often exist in rural areas. This presents challenges to the cost-effective provision of public services to low density rural populations: because of relatively low demand, improving the quality of public transportation services between rural area homes and conurbation jobs will nearly always require cross-subsidy or incentivization to make bus operators' meet targets. Increasing the range and scope of economic opportunities in rural areas including innovative agri-tech and eco-tourism MSMEs is therefore a key strategy to enable residents to work closer to home and ensure that the rural towns and villages do not become dormitory settlements.

Increasing economic opportunities in rural areas is supported through the Government's "innovation-led and technology-intensive" agenda to create dynamic clusters of productivity and competitiveness. This will be combined with the integration of existing communities, social facilities and utility networks to ensure equitable opportunities and development benefits for all will embrace the rural areas. Inclusive growth and consolidation of residential, commercial and tourism clusters in for example the north (Mon Choisy/Grand Baie/Perybere) and west (Flic en Flac/Riviere Noire/Tamarin) will therefore need to be met by counterbalancing strategies for the east and south for example at Centre de Flacq/Belle Mare/ Trou D'Eau Douce and Blue Bay/Mahebourg/Grand Riviere SE.

Development in the countryside needs to be coordinated and focused on Primary Rural Centres to ensure an efficient provision of social and physical infrastructure. Rural Centres will also have a role in creating appropriate opportunities for commercial development based around MSME and innovative companies. Focusing economic growth and the provision of higher level public services on the key rural settlements will help sustain rural communities whilst ensuring that the most highly regarded attributes of the rural environment and scenic landscapes are preserved and managed. The concept of how Primary Rural Centres act as focal points for the different rural areas is illustrated in **FIGURE 13**.

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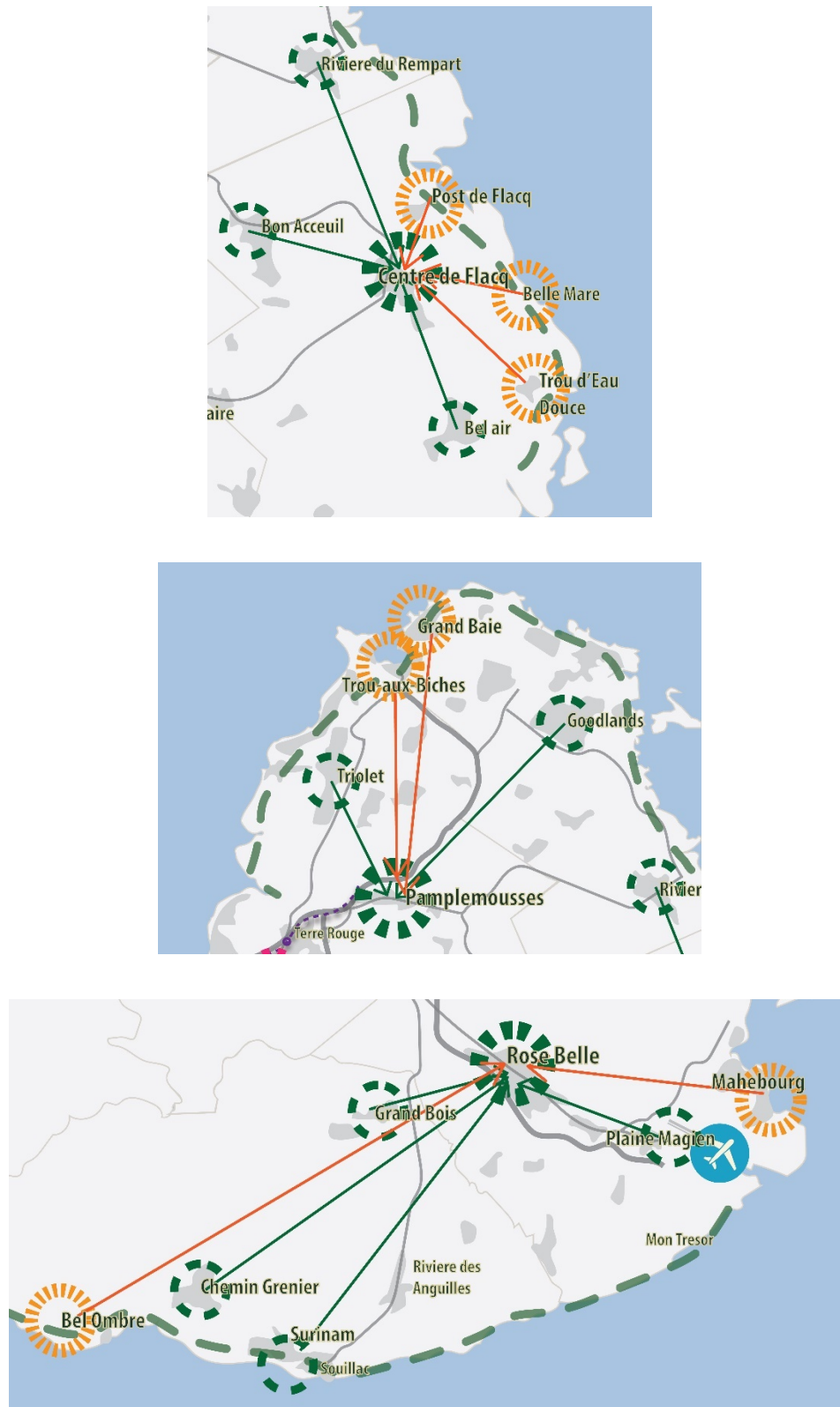


FIGURE 13 'HUB AND SPOKE' OF PRIMARY RURAL CENTRES AND RURAL CENTRES IN THE EAST, NORTH AND SOUTH (NOT TO SCALE)

### 3.3.6. Protecting the Rural and Coastal Landscape

Poorly located and/or badly designed developments can each have detrimental impacts on the quality of the landscape either directly by degrading an important habitat or indirectly by spoiling an important view or landscape setting. To address this issue the National Land Development Strategy proposes measures to better manage the uncoordinated release and abandoning of sugar cane lands by landowners for non-sugar sector uses, including land conversions for morcellements, as the sugar economy is re-oriented. By controlling and guiding the location of future developments, the National Land Development Strategy seeks to avoid the adverse fragmentation and change in scenic landscapes, particularly those developments that put strain on provision of public utilities and bus services, and which therefore become over-reliant on the use of the car.

As part of meeting Government commitments to the Paris Climate Agreement, the National Land Development Strategy supports the expansion of on- shore and off-shore renewable energy, subject to regulatory controls and procedures being holistically addressed. Reducing waste and increasing recycling is also supported by the National Land Development Strategy through enhanced waste management facilities and a reduction on the reliance of landfill.

There is a recognition that the prospects for major new tourism complexes and hotel resorts on large coastal sites are limited with likelihood that any new development would be more complex, expensive, and environmentally sensitive to develop. In this regard rebalancing tourism development pressures away from the fragile coastal environment in favour of promoting countryside-based eco-tourism and heritage tourism opportunities will be an important consideration.

Promoting the economic value of natural and built assets in rural and coastal areas through sensitive access and visitor facilities can form part of crosscutting initiatives around environmental conservation and water management. There is a need to acknowledge the increasing costs of maintaining and conserving the natural environment, particularly wetlands and lagoons, and with this, problems of sustaining the quality and quantum of the natural environment from invasive species while meeting international obligations on biodiversity. World Heritage Sites, National Parks and Mountain Ranges are other examples of built and natural assets that require protecting, nurturing and proper management. The National Land Development Strategy promotes the sensitive renewal of existing tourism sites, supporting development that enhances the offer for tourists whilst reducing the impact of tourism on the coastal environment and coastal communities.

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The National Land Development Strategy promotes the use of the Pas Geometrique for environmental, economic, and social benefit with these pillars of sustainability being in balance. Campement sites form a significant part of the Pas Geometrique and are therefore critical in delivering this strategy. Preserving access for residents to the coast and enhancing the quality of the coastal environment are key aims of the National Land Development Strategy.

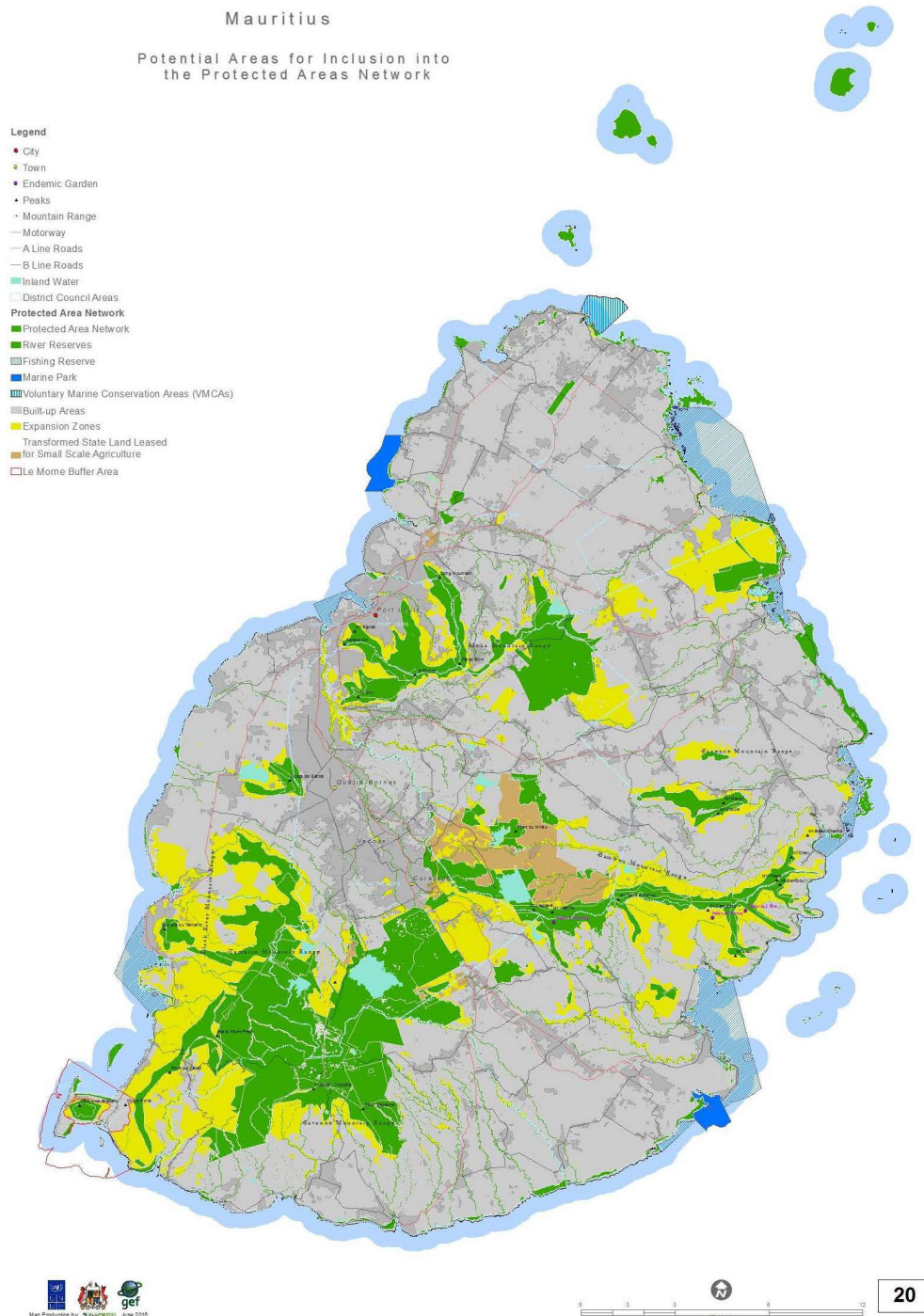


FIGURE 14 EXISTING AND PROPOSED PROTECTED AREA NETWORK (MINISTRY OF AGRICULTURE AND FOOD SECURITY, 2017)

### 3.3.7. A Connected Island

Movement, transport, is a derived demand. Every movement has a motivation or purpose – whether for business, education, leisure or purely social. Each movement has a potential benefit. The movement and the benefit are generally not the same.

Connection is about the bringing together of people and places, bringing about a connection with the associated benefit. But with a cost – in terms of time, resources and environmental impact. This is the process of transport.

Transport can be a strategy, but also a driver that supports and facilitates other strategies. And so, the National Land Development Strategy transport strategy works in sync with the drivers outlined in the Key Themes above.

The NLDS transport strategy is developed and deployed as a key component in the consolidation and intensification strategies in the Conurbation and in revitalisation of rural communities. At the same time, sensitive access can help protect rural and coastal landscape whilst maintaining the social benefits of accessibility for local visitors, and economic benefits of accessibility for international tourists.

The Island vision for connectivity, works symbiotically with other themes by providing appropriate and equitable accessibility and mobility (potential for movement) for all communities – in an as *environmentally friendly* manner as is technically feasible.

The vision for transport and connectivity sees:

- transport strategy helping meet Mauritius's contribution to reductions in greenhouse gases, reducing travel time and costs and consumption of non-renewable resources, helping achieve the benefits of transport more cost effectively, and reducing local pollution related to transport and its adverse health effects.
- a reduction in the need to travel and distance travelled whilst maintaining the social and economic benefits of movement.
- the expansion of the metro as the backbone of the public transport system in the Conurbation
- a super-fast bus network based on extensive application of bus priorities – working together with the expanded metro and delivering journey times equivalent to those possible by car.
- busy transit interchanges and terminals in every metropolitan, urban and primary rural centre – combined with land use intensification and passenger friendly transit-oriented developments.

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- safe, green and pleasant streets and open spaces – designed for relaxation, leisure and play as well as movement – and forming part of an extensive pedestrian and cycle network in the Conurbation and main rural settlements.
- island wide green connectivity, creating healthy recreational opportunities for residents and international tourists alike.
- a highway network that supports rural reinvigoration but that protects areas of natural beauty and conservation.
- a highway network that creates development opportunities for Port Louis and in a way that enhances its international status and as a regional hub.

The strategy for transport is illustrated in 'Figure 15 Transportation Strategy'.



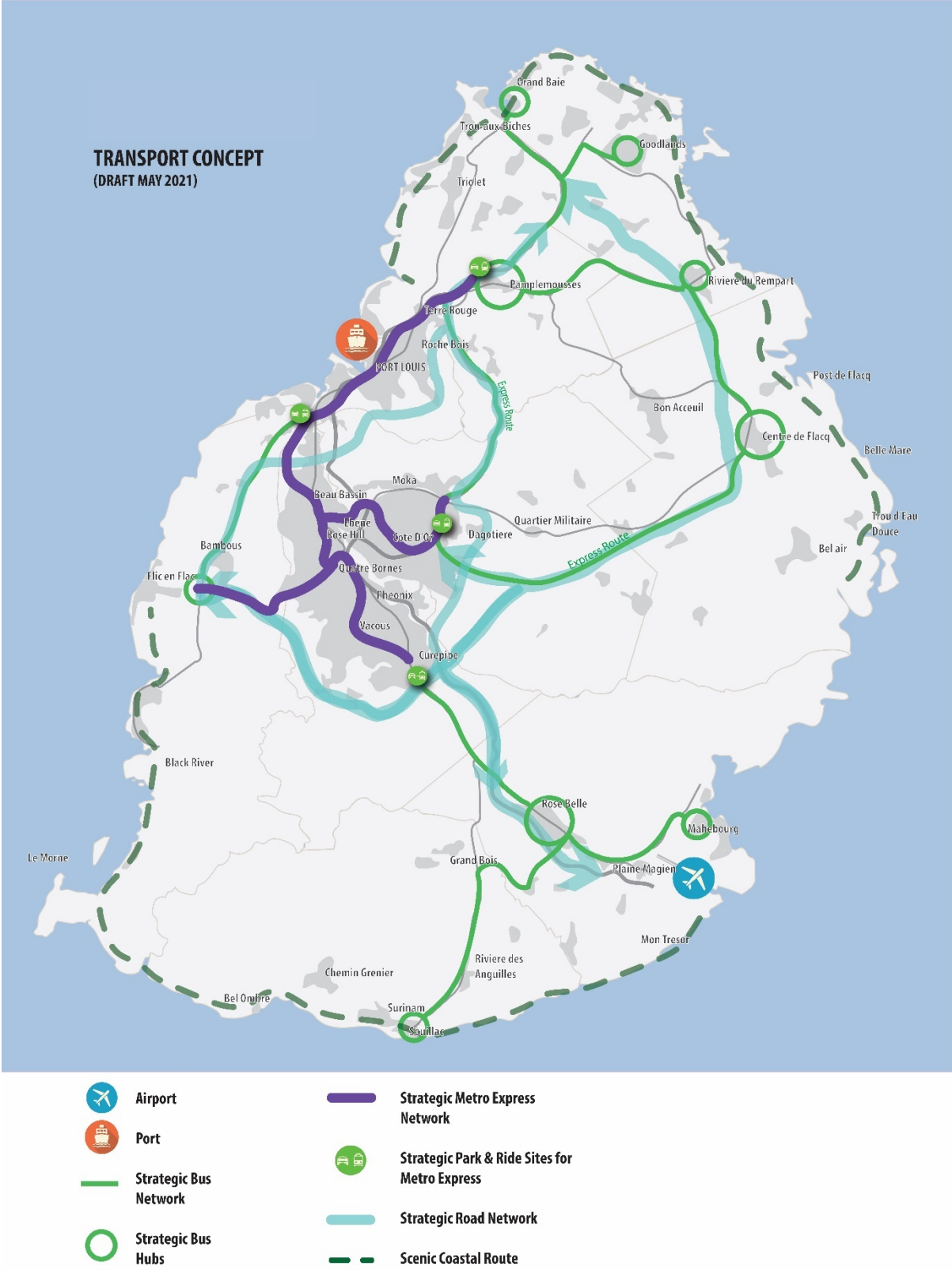


FIGURE 15 SPATIAL TRANSPORTATION STRATEGY CONCEPT



## **4. Core Spatial Strategy for the Conurbation, Countryside and Coast**

### **4.1. National Spatial Strategy**

The National Spatial Strategy is guided by and updates the broad strategy set out in the previous National Land Development Strategy with the concept of clustered growth in the conurbation and major settlements in the countryside and on the coast maintained. Urban Renaissance Zones are maintained as are Tourism Zones and Special Use Zones. In the Rural Area Primary Rural Centres are identified to provide the focus for growth and investment in the rural area.

### **4.2. The Conurbation**

The vision for the conurbation seeks to better guide and manage new development in a more balanced, sustainable and inclusive way to address the key challenges that lie ahead. To produce a more compact and sustainable form of urban growth there is a need to revitalize the traditional town centres to make them more attractive as hubs of community, social and cultural activity where people can walk safely whilst shopping and enjoying a variety of leisure opportunities and local amenities. Complementary uses such as apartments and accommodation for seniors, environmentally-sound incubator offices and workshops should be introduced to sustain growth and help support the viability of an upgraded public transport system, particularly Metro Express, and enhanced public open space. In predominantly residential areas outside the centres, there is an urgent need to maintain and improve local amenity, in particular the public realm, and to make housing areas more pleasant, safe and attractive places for people to live in and enjoy.

The vision will require cooperation, coordination and adequate resourcing between a variety of Government authorities and private sector interests to implement short and medium-term actions. The vision will form a sound basis for the spatial and physical development framework to guide the updating of the Outline Planning Schemes. In summary the following key objectives for the conurbation are proposed:

- A revitalization of the capital city and town centres by introducing improvements to the public realm, innovative public transport and traffic management measures and a range of social, cultural and community facilities to create more attractive, safe, accessible and inclusive urban environments in which to live, work, study and enjoy.

- An enhancement of urban environment and amenity by guiding new development proposals to the most sustainable locations whilst conserving the amenity of cultural heritage assets, street patterns and neighbourhoods and promoting high quality design for major developments and redevelopments.

### **SP1 Urban Regeneration and Growth (SP1)**

At the strategic level there should be a focus of development based on a hierarchy of mixed-use centres with the three economic hubs of Port Louis, Ebene and Cote D'Or Smart City providing the catalyst for economic growth. In the Conurbation, Urban Centres will continue to play an important role in the day to day lives of residents and provide focal points for development.

In many of the existing centres, renewal will be required. To address this there should be a strong emphasis on enhancing the quality of the urban fabric, provision of facilities and open space to enhance the quality of life in the urban area. The Urban Centres should be the focus for urban regeneration with an emphasis on providing mixed use development.

There should be better connectivity by foot, cycle, and public transport to Urban Centres, Local Centres and Urban Terminals at metro stations with enhancements in public realm and bus connectivity.

#### **Reasoned Justification:**

The Conurbation is the key urban cluster, providing the focal point for economic activity and provision of services. It is also home to nearly half the population of the island. It has seen significant investment in physical and social infrastructure with the first phase of the Metro System providing significantly enhanced connectivity. By focusing development in the Conurbation the existing role of Port Louis can be enhanced whilst also building on the economic success of Ebene Cyber City to make a more mixed-use centre. The medium to long term opportunities presented by Cote D'Or Smart City will provide space for much of the urban growth anticipated in this plan period.

Urban Centres benefit from an existing level of service and strong sense of place from which to enhance their economic and social role. Quality of place is a challenge in many of the Urban Centres where competing demands on space often marginalise pedestrians with a loss of accessible footpaths and public spaces. Enhancing the built fabric through sensitive redevelopment and reuse of sites and buildings is required in many of the Urban Centres.

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The success of the Urban Centres is dependent upon them improving the safety of footpaths and public realm. Also, due to limited car parking the need to improve access by non-car modes is critical. These actions are also needed to Local Centres and Urban Terminals at Metro Stations to fulfil their potential.

### Modification Justification

- Policy updated to reflect growth of conurbation with emergence of Ebene Cyber City and Cote D'Or Smart City as primary employment hubs.
- Role of Urban Centres to build on the investment in the metro line emphasised.
- Importance of high-quality public realm highlighted.

#### 4.2.1. The Role of the Capital City

Despite the emergence of Ebene Cyber City and potential of Cote D'Or Smart City, Port Louis will remain the primary location for Government Administration and leisure. It has seen competition from Malls has reduced its importance for retail and competition from other commercial complexes for office uses. Congestion is still a problem in central Port Louis. Heavy goods vehicles accessing the Port and heavy industry around Port Louis is also having a detrimental impact on the physical environment of the Centre. The Metro provides clean, convenient access from the central part of the Conurbation and this will extend to the south of the Conurbation when phase two is completed. Proposals are made to extend the system further which will consolidate the Capital's future role at the hub of urban growth.

The renewal around the waterfront has brought new life into the central area. It is important that this renewal continues through key urban renewal projects such as the redevelopment of Caudan and the Victoria Urban Terminal, the renewal of Immigration Square in a manner that respects and preserves the World Heritage Site of Aapravasi Ghat and the mixed use Les Salines development project incorporating the Port's new cruise line terminal.

The unique setting and architectural quality of Central Port Louis requires protecting from neglect and insensitive development. The tourism potential of Port Louis as a city of cultural and historical significance is not being fulfilled and this remains a challenge and opportunity both for Port Louis and the wider tourism sector.

## **SP2 Protect and Enhance the Role of Port Louis (SP2)**

Port Louis should continue its regeneration with further enhancements to its urban environment to fulfil its role as the nation's capital. It should continue to provide the location for most of the nation's key economic, governmental, and cultural institutions.

The following policy actions are seen as critical to the successful renewal of Port Louis:

- Integrated redevelopment of the waterfront; Renewal of the historic core, including Aapravasi Ghat.
- Redevelopment of Immigration Square/Urban Terminal, enhancement to Place D'Armes, connecting the city centre back to the waterfront.
- Renewal of urban fabric (buildings and public realm), including the protection and reuse of historic buildings and redevelopment of buildings in poor condition.
- Reducing the dominance of traffic, in particular heavy goods vehicles.
- Enhancing connectivity for pedestrians, particularly to the waterfront.
- 

### **Reasoned Justification**

The Area Action Plan (AAP) developed for Port Louis sets out the key planning objectives for delivering positive change. The role of Port Louis is changing with a need to reverse the loss of population by providing a different housing offer. Building on the enhanced connectivity of Port Louis by Metro is vital for the Capital City and the long-term success of the light transit system. Reducing the impact of cars and heavy goods vehicles is critical in enhancing the quality of the environment, with air and noise pollution a detriment to achieving a liveable city.

Retaining and enhancing the office sector can create a different offer for companies with the historic fabric, Capital City address and landscape setting creating the potential for a prestige environment. To fulfil the potential of Port Louis as a key economic driver, cultural destination and liveable space there is a need to enhance the physical environment of the Central Area and Waterfront. Connecting the Central Area to the Waterfront is vital in bringing different opportunities together, particularly with the continued development of the waterfront for retail, culture, leisure and residential uses.

### **4.2.2. The Role of Ebene Cyber City and Cote D'Or Smart City**

Ebene Cyber City has played a critical role in helping to diversify the economy of Mauritius, providing a focal point for the expansion of financial and administrative services. There are a number of vacant sites within Ebene that provide opportunities for further development. In addition there are opportunities for intensification of land on existing sites through well

designed and integrated infill development to further supports its role as a primary employment centre. A key objective for Ebene is to improve it as a place to work and enjoy through the expansion of commercial services and public facilities that workers can access either before, during or after work.

Cote D’Or Smart City is the primary urban expansion identified in the last National Land Development Strategy. A Masterplan Framework has been produced with several centres being developed by the Governmental para-statal organisation Landscape Mauritius. Cote D’Or Smart City is designed around a series of mixed-use centres and will play a key role achieving the Government’s Vision for sustainable economic development by in providing offices, MSMEs specialising research and development and , data-tech centres, as well as regional education, healthcare, sports and leisure attractions, retail offerings as part of the development of a series of new housing neighbourhoods.

### **SP3 Support the Growth and Diversification of Ebene Cyber City and Cote D’Or Smart City (*New Policy*)**

Further development of Ebene Cyber City and Cote D’Or Smart City should be pursued alongside enhancements in public transit accessibility and public realm provision for cyclists and pedestrians.

The following policy actions are seen as critical:

- Densification and diversification of land uses in Ebene Cyber City, with an emphasis on providing enhanced provision of hotels, apartments, retail, leisure, cafes and restaurants, personal services uses.
- Promotion of an extension to the metro line and metro station to serve Ebene and Reduit Triangle/ University Campus;
- Enhanced public realm in Ebene with a focus on providing safe and accessible network of footpaths and cycleways with connections to neighbouring developments.
- Provision of public transit connectivity to Cote D’Or Smart City and Moka Smart City, providing stations at key centres along the route.
- Development of Cote D’Or Smart City based on the approved Masterplan framework in a manner that upholds the core principles of the Masterplan whilst responding to the emerging market and economic development strategy.

### Reasoned Justification

Ebene Cyber City has emerged as a key hub for financial and professional services in Mauritius. Its economic success has led to both International and National companies setting up offices in the City's campus but this rapid growth has created connectivity and access issues with the surrounding motorway network as well as problems of internal congestion, public transport availability and pedestrian safety and comfort.. While vacant plots provide overspill car parking, buses are often full at peak times get caught in the congestion and are not generally available in the late evening/sun-down Enhancing bus connectivity through bus priority lanes and junctions is necessary and in the medium-term achieving connectivity to the Metro System through a new line and station at Ebene is a key priority.

Partly due to non-availability of buses out of office hours, the city is largely dormant with limited residential or leisure activity in the form of snack outlets, restaurants or bars. Diversifying Ebene's offer to create a true mixed-use centre is its biggest challenge going forward.

Cote D'Or Smart City has been master planned with firm proposals in place to add a series of employment parks, education hubs and mixed-use centres to the already established Multi-Sports Village. Cote D'Or Smart City has been developed based on established urbanism principles that provide a series of highly connected centres, surrounded by walkable residential neighbourhoods. Access to the conurbation by high quality public transit, including an extension to the Metro system is a key part of the master plan. To the north of Cote D'Or Smart City and forming part of the same strategic expansion area is the ENL Moka Smart City scheme. Moka Smart City will also provide employment and healthcare hubs, building on the existing facilities at St. Pierre and Moka. The St. Pierre By-pass is already operational and the development has the potential to connect to the Metro System in the medium term. Cote D'Or Smart City and Moka Smart City together were identified in the previous National Land Development Strategy as a strategic expansion zone within the Highlands/Illovo settlement scheme. It was identified as having opportunities to provide new settlement growth clusters within the wider conurbation. This opportunity still exists with the masterplan for Cote D'Or Smart City identifying significant housing supply opportunity that alongside Moka Smart City has the potential to meet most of the conurbations housing needs over the plan period.

#### **4.2.3. New Planned Communities**

Outside the planned Urban Extension and already approved Smart Cities there is not anticipated to be large scale new planned communities. For those new planned communities there is a need to provide a settlement structure that is based on principles of high-quality walkable self-sustaining neighbourhoods serviced by public transport.

**SP4 New Planned Communities (SP11)**

New communities should be master planned with the aim of becoming self-sustaining over the plan period providing:

- mixed-use walkable development to serve the needs of the new community and existing neighbouring communities by optimising local employment opportunities linked to the site's economic potential having regard to national economic drivers and priorities".
- high standards in the design, layout and landscaping of urban and rural development incorporating adaptive re-use of existing site buildings and utility services; and
- safe and convenient pedestrian, cycle and public transport infrastructure.

Regard should be had to the policies contained in the Built Environment Section of this new NLDS and guidance contained in the PPGs.

**Reasoned Justification**

Large scale residential- only developments do not meet the day to day needs of residents with regards access to local jobs, social infrastructure and convenience retail, while increasing dependence on the private car for most trips. Mixed-use development built around a defined centre create a sense of place and community, enhancing the liveability of the development and enabling the integration into the wider urban fabric as new facilities are used by existing residents.

Each major new planned development has the potential to enhance the overall built capital of Mauritius as well as expand the range of local employment opportunities to sustain community livelihoods by re-orienting local skills through continuing learning to meet new needs. It is therefore important that new development responds to the architectural and heritage character of the locality and its landscape setting as well as the climatic conditions of the site. Landscaping and open space provision should promote high quality aesthetic and contribute to the biodiversity of the Island.

By creating mixed-use walkable developments there are opportunities to reduce the need to travel by car. This is only possible if pedestrian and cycle facilities are provided throughout developments with a particular emphasis on the provision of safe routes and junctions. The impact of the car should be minimised throughout new developments through slow design speeds and with car parking either screened or set as part of landscaped streets or courtyards.

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Planning Policy Guidance contains more detailed guidance that forms part of the planning toolkit. It is therefore imperative that requirements and guidelines are met as far as practical and that the Planning Policy Guidance itself is kept up to date.

### Modification Justification:

- Policy has been updated to provide policy guidance on the design of any new settlement identified through the planning process.

#### 4.2.4. Strategic Gaps

In combination with medium and high-density neighbourhoods there is a need to provide space for nature within urban areas. These strategic gaps provide opportunities for residents to visually and physically connect to nature and the countryside, providing opportunities for exercise and well-being. The gaps are often based on natural eco-systems which can assist in managing water systems to prevent flooding whilst also providing wildlife habitats and green and blue infrastructure corridors.

#### **SP5 Strategic Gaps (SP12)**

Strategic blue and green networks/wedges shall be protected from built development by preserving river valley buffers, local collines and other key linear green/blue landscape features and nature-based networks that connect the urban area to the countryside. This should be done by:

- safeguarding appropriate open land from built development;
- preserving and enhancing landscape and open space features throughout the urban environment; and
- retaining strategic gaps and open spaces between settlements so that coalescence does not occur.

Development should not normally be permitted where it would be harmful to the natural and landscape character and setting of settlements, particularly in rural and coastal locations. Strategic Gaps and Blue and Green Infrastructure Networks should be identified in updated Outline Planning Schemes.



Reasoned Justification

Continuous urban development provides little opportunity for nature and access to natural environments. Natural systems can be disrupted and undermined. Recognising the value of natural systems and biodiversity on the lives of residents and liveability of towns and cities, the provision of Strategic Gaps promotes the integration of green and blue networks as an integral characteristic of Mauritian towns and cities. River valleys are protected from the perspective of water quality. This provision can be extended to the wider environmental and social benefits of providing access to nature.

Strategic Gaps can play a key role in creating distinction between settlements so that they retain their character and sense of place and should be identified in updated Outline Planning Schemes.

Modification Justification

- The policy has been strengthened to reflect the role that existing green and blue corridors play in connecting the conurbation to the countryside.
- The policy reflects the important role that blue and green networks play in natural systems.
- Importance of preserving the natural and landscape character emphasised.

4.2.5. Mixed-Use Developments

A key part of the spatial strategy is the provision of walkable neighbourhoods. Mixed-use development can support sustainable principles of reducing the need to travel whilst providing a focal point for neighbourhoods.

**SP6 Mixed Use Developments (SP8)**

Mixed-use development will be encouraged in Metropolitan, Urban and Rural Centres well served by public transport, particularly within walking distance of Urban and Rural Terminals. Developments should have regard to the existing building context in terms of density, height, massing and materials.

Reasoned Justification

Policy SP6 encourages mixed-use development in urban and rural centres subject to considerations around public transport accessibility and impact on neighbouring properties. Mixed-use development can make a contribution to a more sustainable land use pattern by

reducing the need to travel and creating opportunities for linked trips through providing work, retail and leisure opportunities close to where people live. It also fosters social inclusion by making it easier for people to access jobs and services without requiring a car and with an enhancement public transport network enables better connectivity to other parts of the island.

Mixed-use development also improves the viability and vitality of centres, benefiting residents through better choice and range of services and facilities and by creating a larger catchment population for the commercial activities. Well-designed development that takes into account the existing building context in terms of density, height, massing and materials can make urban and rural centres more attractive places to live and visit. Increased residential population creates activity in the evenings and at weekends providing a vibrancy and natural form of security otherwise missing in large single land use commercial locations. Mixed-use development is also more efficient in the provision of physical infrastructure where roads, footpaths, open spaces and utilities are utilised more effectively across the day and week.

### Modification Justification

- Policy has been updated to reflect new terminology.

#### 4.2.6. Vacant, Derelict and Underused Land

As urban areas evolve it is inevitable that some uses will no longer be required or suited to their urban setting. With economic and social changes this results in land becoming vacant or underused. For the successful evolution of an urban area the reuse of this land is critical as new life is injected into a neighbourhood rather than vacant land becoming an eyesore and detracting from the qualities of the neighbourhood which if left unchecked can lead to longer term issues of blight and degradation. Along with the development of land the revitalisation of derelict and underused buildings that can be redeveloped for alternative uses should also form part of the regeneration strategy.

#### **SP7 Development of Vacant, Derelict or Underused Land (SP9)**

The development of vacant or derelict land and sites within existing settlements will be encouraged if it does not lead to a reduction of urban green space or impinge on natural systems. The redevelopment of underused land will be encouraged if the planned scale and density of new development is in accordance with its urban context. Development that is out of scale with its context will not be permitted.

New development will be required to meet design guidance as set out in Planning Policy Guidance. Previously used land outside of settlement boundaries should only be developed

in exceptional circumstances where it can be shown that the development meets the needs of local residents or is in the national interest for tourism, energy or utility purposes.

### Reasoned Justification

With land as a finite resource, it is important that land is reused for a positive purpose, whether that be social, economic or environmental. Land within existing settlements already benefits from many sustainable requirements such as access to transport links, utilities as well as the services and facilities typically found in settlements. By reusing the land for development, this reduces the requirement for new greenfield sites to be developed in the rural area. It is however important that the reuse of land is done sensitively with the new land use(s) being compatible with the urban context. The design of the development should also have regard to the density, scale and height of the surrounding development. Where open space formed part of the previous use this should be retained or replaced as part of the redevelopment in accordance with Government standards of provision and biodiversity commitments.

### Modification Justification

- Policy title updated to broaden scope of land policy applies to.
- Importance of urban green space and need to protect natural systems emphasised.
- Policy updated to ensure that new development is designed to reflect its urban context.
- Previously used land outside of settlements only to be developed in exceptional circumstances.

### **SP8 Urban and Rural Rehabilitation (*SP10*)**

To encourage the renewal of run-down parts of towns and villages, rehabilitation will be permitted where buildings are no longer required for their original purpose and/or intensification of the site would not harm the local context. New development should be capable of being served by existing infrastructure and facilities.

### Reasoned Justification

TBC Despite rapid economic growth and programmes to enhance towns and villages there remain parts of urban and rural settlements that still require rehabilitation. Government funding initiatives including the National Regeneration Programme should be targeted to addressing issues in a comprehensive manner, looking at the overall liveability of the place. This may involve mixing funding initiatives to remove and/or rehabilitate blighted land and buildings, enhance social housing provision and improve public realm and service provision.

### Modification Justification

- Policy updated to ensure that new development is well served by existing infrastructure and facilities.

### 4.2.7. Centres

Urban Centres will continue to play an important role in the provision of goods and services for large parts of the conurbation. This is despite the expansion of retail mall provision over the past two decades. Urban and Centres remain the focal point for the provision of retail and services. With increased competition it is important that the mix of uses remains relevant to those who live and work near the centres and provide public realm that is safe and accessible.

#### **SP9 Urban Centres and Retailing (SP5)**

Major new retail should be located based on the sequential approach with priority given to Metropolitan and Urban Centres. Active frontages should be retained in existing centres with a focus on improving the pedestrian environment and providing improved access to car parking and public transport. Where major new retail has been developed on out-of-town sites, there should be consideration as to whether these developments can meet the needs of their local population, making them more accessible by foot, cycle and public transport and through the integration of new residential uses in and around the centres.

### Reasoned Justification

The urban centres within the conurbation have traditionally been the focus for shopping because these locations were well-served by a variety of transport modes including bus. However, the combination of increasing town centre traffic congestion, lack of public parking and a related deteriorating pedestrian ambience have conspired to motivate the development of free-standing convenience food stores and retail parks. The continued growth of the conurbation increases in disposable incomes and related to this, car ownership and use have exacerbated the problem. Since 2003 the trend towards peri-urban and out of town locations has seen the development of new malls along the motorway and expansion of older malls, with many located close to the motorway. Additions to the retailing stock at La Croisette on the M2 near Grand Baie in the north, Bagatelle on the M1 near Moka in the centre and Super U near Mahebourg in the south east, intensification and consolidation at existing commercial complexes has also occurred at La City/Trianon on the M1 near Quatre Bornes, Jumbo on the M1 at Phoenix, and Super U at Centre de Flacq on the A7, amongst others.

These significant developments, although expanding the range of consumer choice (mainly for those with access to personal transport), has drawn trade away from existing centres retailing and other related activities and which over time as experienced elsewhere, can lead to town centre decay and loss of investment. In this context, the Government's significant intervention in implementing the Metro Express new LRT service can be seen as a positive step in contributing and enhancing the vitality and viability of existing town centres. In recognition of this initiative more recently there has been a counter-trend towards in-town retail developments serving local consumers e.g. Intermart serving Ebene Cyber City business park and Winners serving Candos and nearby Victoria hospital at Quatre Bornes. The policy will continue to support retail investment in urban centres including redevelopment and densification of sites in and around, existing urban centres, particularly around metro stations.

To compete with the large malls, urban centres need to provide a high-quality public realm with convenient car parking options.

### Modification Justification

- Falling residential population, traffic congestion and poor ambience for shopping.
- Significant increases in out-of-town commercial complexes with parking space.
- Future growth and attraction of internet shopping and delivery services.
- Increased demand for a range of general and specialist retailing services, including from an aging population.
- Ensure equitable distribution of range of retailing facilities in urban and rural areas.
- Introduction of Metro Express and related mixed use Urban Terminals.
- Make optimum use of existing sites and buildings including shared or dual use before considering new sites.
- Revitalize and incentivize town and village centre regeneration, attraction and 24/7 ambience.

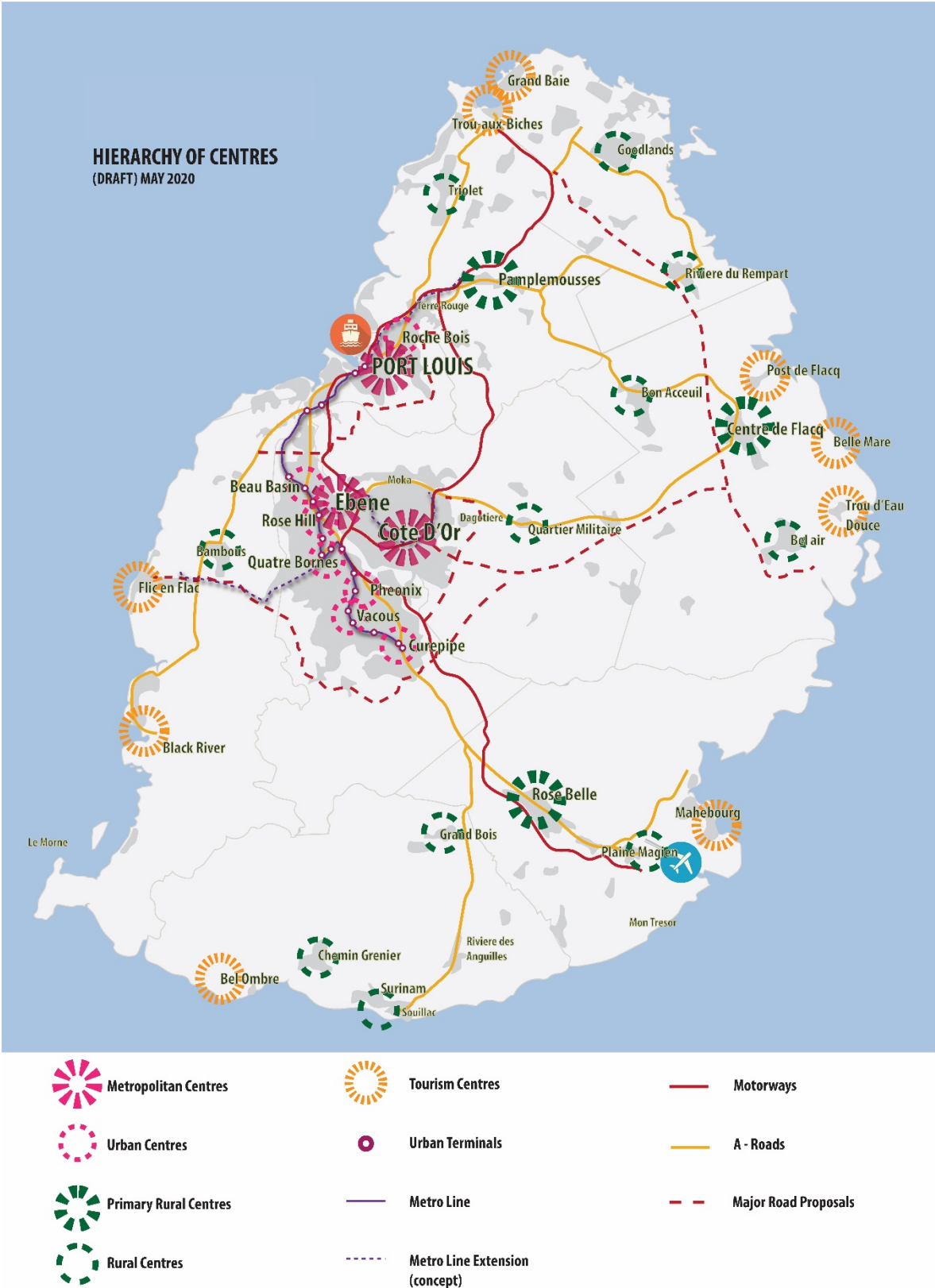


FIGURE 16 SPATIAL DIAGRAM OF HIERARCHY OF CENTRES

### 4.3. The Countryside

The countryside of Mauritius serves many purposes. It is home to an increasing number of residents as rural villages grow and what were once Rural Village Areas become urbanised. Land is dominated by agriculture and in particular sugar-cane cultivation. This does however mask a longer-term trend of sugar cane cultivation reduction across the island. In 2003, land under agricultural cultivation was estimated to be approximately 80,000 hectares, of which sugar accounted for 74,000ha (92.5%). By 2018 total land under agriculture had reduced by 25% to an estimated 60,000ha, while sugar cane land had decreased further to 51,454 ha (86.1%), reducing both in real and relative terms.

Rural poverty remains an issue with residents in rural areas more likely to be in lower grade employment or unemployed than their urban counterparts. Rural isolation is an issue for those without access to a private car with bus journey times to conurbation employment centres often more than double that of a private car.

Agriculture has changed from being a Mauritian industry to become part of a 'small-island-development-state' industry and is now part of a global industry. Aware that agriculture, the primary process in the food-chain, needs an effective processing component supported by efficient marketing structures if it is to maintain returns, farmers, growers and fishers have come to terms with being part of a demand- oriented market and are now sensitized to produce what the customers want rather than what they want to produce. There is also now the drive to become as self-sufficient as possible in what is consumed and so become more independent in terms of food supplies.

#### 4.3.1. Rural Regeneration and Growth

In future, attractive and diverse rural regions can offer major competitive advantages to realising high end growth in accord with Government policy. The regeneration of rural areas can be distinctive offering authentic landscapes to nurture high end working and lifestyle environments as well as producing high quality foodstuffs as alternatives to sugar and helping achieve food self- sufficiency.

The creation of a national Green Infrastructure framework that integrates scenic landscapes and other rural assets, agri-industry and authentic nature-based eco-tourism and educational tourism opportunities can help facilitate sustainable development, improve quality of life and retain high value innovative enterprises.

### **SP10 Rural Regeneration and Growth (SP14)**

Rural regeneration and growth will be focused in strategic towns and villages with the aim to stimulate community-based job creation, meet local housing needs and provide the focal point for social infrastructure to serve the wider rural area. Major economic investment and higher order facilities should be located in the Primary Rural Settlements. New retail should be located based on the sequential approach with priority given to town and village centres. Rural towns and villages should be promoted as walkable settlements with a focus on improving the pedestrian and cycle environment with through traffic removed from centres where possible.

Opportunities to integrate new residential uses in and around rural centres should be encouraged especially where existing sites are being redeveloped or bus terminal redevelopment schemes are being promoted under the Government's National Regeneration Programme.

Outside town and village centres, consideration should first be given to creating rural regeneration clusters by converting and re-purposing agricultural sector legacy sites and buildings before new greenfield sites are identified providing the proposed development:

- would not detrimentally impact the safeguarding of sites for State-significant development or the development of masterplanned new communities or area-wide rural regeneration schemes.
- would not detrimentally impact a national Protected Area as defined by the Ministry of Agro-Industry and Food Security (MAIFS), National Parks and Conservation Service.

#### **Reasoned Justification**

Unutilised lands and buildings in rural areas represent a waste of valuable resources and a missed potential for novel initiatives. Under the Government's National Agri-Food Development Programme a centralized land bank will be organised to monitor land use and land use changes, ensure food security, reduce dependence on imports and support the drive towards healthier lifestyles. It will also assist MAIFS to manage land settlements and other leased areas more effectively to ensure compliance with the provisions of lease agreements.



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Effective use of available land can include employment-generating initiatives in agri-tech to increase land productivity and sustainable production and ensure food and nutrition security; bio-tech and biological inputs in production systems; and tools to address labour shortage, improve post-harvest life and minimise food wastage.

Opportunities for conversion of surplus land or underused agricultural sector legacy buildings should also be considered. Proposals to adaptively re-use sites and buildings outside town and village centres to create rural conservation clusters should be permitted where they contribute to:

- community-based employment creation, or sustain local communities, skills and traditions,
- safe and convenient access by a range of modes including public transport, walking and cycling, and
- sufficient usable open green space in accord with national norms and Government aims for healthier lifestyles and climate change mitigation.

The policy underpins the use of the spatial hierarchy in rural areas. Optimizing investments in existing but underused or surplus agricultural sector sites and buildings for employment - creating uses can help sustain local communities by providing opportunities to re-establish traditional community skills including nature-based eco-tourism, agri-tech and agri-tourism.

### Modification Justification

- Changing demand stimulated by Government policy thrust towards high tech food-security initiatives.
- Need for incentives to support Rural Area Regeneration.
- Drive towards healthier lifestyles will generate demand for a range of health and well-being, and recreation and sports facilities in both the countryside and the coast.
- Optimizing investments in existing but underused or redundant sites and buildings for new employment creating uses to sustain local communities.
- Need to maintain established community skills and traditions for social cohesion.
- Policy underpins the use of the spatial hierarchy in the rural area.

### 4.3.2. Open Countryside

The open countryside is characterised by no or extremely low density scattered development, often related to agricultural production. Any development in the open countryside places a disproportionate pressure on the provision of infrastructure and facilities required to service the development whilst also often having a disproportionate visual impact on the landscape setting.

### **SP11 Development in the Open Countryside (*SP15*)**

There should be a general presumption against major new developments in the open countryside outside settlement boundaries as identified in revised Outline Planning Schemes.

Where sites in the open countryside have become surplus to long term sugar sector requirements or are no longer required to support national food security objectives as determined by the MAIFS, priority should be given to land and site rehabilitation in support of green infrastructure schemes. Schemes incorporating ecological restoration of ESAs or reforestation or proposals which contribute to preserving or enhancing the amount of publicly-available natural landscapes should be incentivised.

Where major new development proposals in the open countryside are of national interest and where suitable alternative sites are not available, the full environmental, social and transport costs of the new location and the alternatives considered should form an integral part of the decision-making process.

#### **Reasoned Justification**

Unutilised lands and buildings in rural areas represent a waste of valuable resources and a missed potential for novel initiatives. Under the Government's National Agri-Food Development Programme a centralized land bank will be organised to monitor land use and land use changes, ensure food security, reduce dependence on imports and support the drive towards healthier lifestyles. It will also assist MAIFS to manage land settlements and other leased areas more effectively to ensure compliance with the provisions of lease agreements.

Opportunities for conversion of surplus land or underused agricultural sector legacy buildings should be prioritized where they can contribute towards new job creation, or sustain local communities, skills and traditions. Effective use of available land can include employment-generating initiatives in agri-tech to increase land productivity and sustainable production and ensure food and nutrition security; bio-tech and biological inputs in production systems; and tools to address labour shortage, improve post-harvest life and minimise food wastage.

Initiatives that support climate change mitigation and adaptation objectives including incentivizing authentic inland eco-tourism and agro-tourism schemes that help conserve landscapes, heritage and wildlife and reduce pressures on the coastal zone should be encouraged. Restoration and reforestation programs that can help re-purpose abandoned agricultural land and preserve biological diversity should be promoted.

### Modification Justification

- Changing and increasing demand stimulated by Government policy thrust towards increased resource and energy- efficiency uses and food-security initiatives.
- Opportunities for re-purposing and retrofitting existing legacy sites and buildings to contain urban sprawl/ad hoc development and reduce demand for new greenfield sites.
- Support options for rural regeneration clusters that can help sustain local communities and traditional workforce skills, including retraining programmes.
- Maintain established rural linkages and travel patterns for social cohesion, with a focus on affordable and equitable access for all.

6-1 Draft National Land Development Strategy

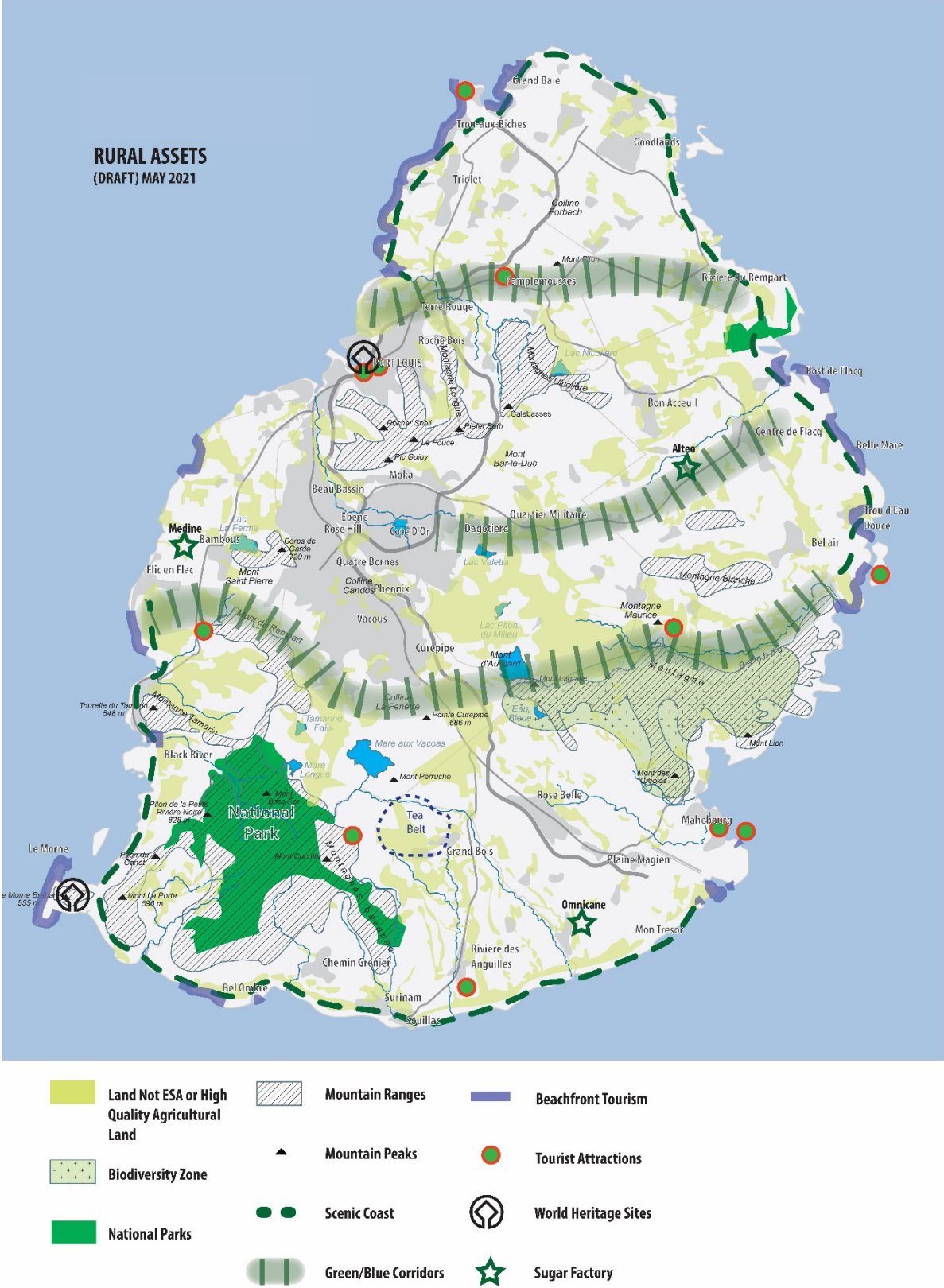


FIGURE 17 SPATIAL DIAGRAM OF RURAL ASSETS

## 4.4. The Coast

As a Small Island Development State (SIDS), Mauritius is particularly vulnerable to the negative effects of climate change and in particular along its Coast which is one of the environments most under pressure from human development. Large swathes of the coast have been developed for tourism and housing, restricting public access to beaches, and impacting on the natural systems and processes of the coastal environment. The coast is eroding with significant negative effects on land use and the economy. As a consequence, one of the main economic pillars, tourism, and the enjoyment of beaches are particularly under threat.

### 4.4.1. Coastal Development and Tourism

A more environmentally and socially responsive paradigm shift towards tourism and the coast is required to ensure that the qualities are retained and that coastal communities can continue to live and work in their traditional neighbourhoods. Redirecting major developments inland and preserving the coast's natural features not only will mitigate the impacts of climate change, but it will also provide a new thrust to the tourism industry as well as help nurture rural communities.

There is a need for more public spaces on the coast. Local coastal communities should be supported in developing the skills and in having the resources for a new coastal economy that will be sustainable and inclusive.

#### **SP12 Coastal Development and Tourism (SP16)**

Development should provide a balance between protecting the economic value of tourism with the need to protect and conserve sensitive coastal environments and traditional fishing communities. Proposals should follow a sequential approach to site election: existing resorts and settlements located in Tourism Zones will remain the focus for tourist-based coastal development and regeneration schemes in line with sustainable development principles, having regard to updated Planning Policy Guidance.

Outside coastal Tourism Zones in locations in or adjacent to settlement boundaries identified in Outline Planning Schemes, there will be a general presumption in favour of small-scale developments where these can be shown to promote job creation, meet local housing needs and provide the focal point for social infrastructure to serve the wider coastal area especially

where changes due to agricultural or blue economy sector restructuring and diversification are being experienced or can be anticipated.

In these cases, consideration should first be given to creating coastal regeneration clusters by converting and re-purposing agricultural or fishing sector legacy sites, providing the proposed development:

- would not detrimentally impact the safeguarding of sites for State-significant development or the development of area-wide coastal regeneration schemes,
- would not detrimentally impact a national Protected Area as defined by the Ministry of Agro-Industry and Food Security, National Parks and Conservation Service.

In all cases of new development in coastal locations, the provision of publicly-accessible and usable open spaces and the creation or upgrading of green pedestrian and cycle networks that enhance strategic and local coastal accessibility and help mitigate climate change effects should be prioritised.

### Reasoned Justification

There is a need for more inclusive distribution of publicly accessible spaces on the coast such as public parks and beaches. Much of the Pas Geometriques which are a national public asset, are controlled by the leaseholders (hotels and campements) and are not accessible to the public. At the same time there is a need to protect the coastal assets including wetlands and sand dunes from the effects of sea level rise and coastal erosion.

Policy support for the coast should therefore focus on i) protecting coastal landscapes while ensuring public access to promote awareness of environmental preservation; and ii) maintaining a balance between regenerating and enhancing existing coastal zone settlements and tourist facilities, and coastal asset conservation and management (including agriculture, blue economy/ fishing and heritage assets), taking climate change into account; iii) maintaining and extending established coastal linkages and travel patterns for social cohesion, with a focus on affordable and equitable access for all.

### Modification Justification

- Drive towards healthier lifestyles will generate demand for a range of health and well-being, and recreation and sports facilities in both the countryside and the coast.

## 6-1 Draft National Land Development Strategy

- Opportunities for re-purposing and retrofitting existing legacy sites and buildings to contain coastal sprawl/ad hoc development and reduce demand for new greenfield sites.
- Support options for rural regeneration clusters that can help sustain local communities and traditional workforce skills.
- Maintain established coastal linkages and travel patterns for social cohesion, with a focus on affordable and equitable access for all.
- Importance of the coastal environment emphasised in updated text with an expectation that the sensitive coastal environment will be protected.
- Focus on enhancing and regenerating existing tourism accommodation and facilities.
- Emphasis on the importance of following guidance in the Planning Policy Guidance.

### 4.4.2. Open Coasts

The 2003 NDS contains many important provisions for the preservation of the coast and its natural ecosystems, along with the public's right to enjoy these. By refocusing future tourism development opportunities inland and rehabilitating undeveloped sites on open coasts, this can help preserve natural landscape features and mitigate the impacts of climate change.

#### **SP13 Development on Open Coasts (*SP17*)**

On open coasts outside Tourism Zones and settlement boundaries there should be a general presumption against major new developments to provide a buffer against sea level rise, storm surges, coastal inundation and erosion.

To build resilience of the coast, priority should be given to land and site rehabilitation in support of green infrastructure schemes. Schemes incorporating ecological restoration of ESAs or reforestation or proposals which contribute to preserving or enhancing the amount of publicly-available natural landscapes should be incentivised.

Where major new development proposals on the open coast are of national interest and where suitable alternative sites are not available, the full environmental, social and transport costs of the new location and the alternatives considered should form an integral part of the decision-making process.

### Reasoned Justification

With the onset of climate change and the rethinking of the tourism industry in Mauritius which is no longer as attractive as before, the coastline as an environmental and economic resource needs to be preserved, protected and better managed because:

- it is the major natural venue for the local population to spend leisure time,
- the most vulnerable and complex suite of ecosystems,
- the gate to important sources of livelihood, while
- remaining a key asset of the tourism industry.

Incrementally creating coastal biodiversity zones and geoparks managed through public private and local community partnerships, ecological re-use of abandoned sugar lands and enhancing national and regional green and blue infrastructure networks and scenic coastal routes for public benefit can also contribute to improving mitigating climate change effects.

### Modification Justification

- To restrict further development in a sensitive landscape setting and ensuring that new development, where permitted, is of the highest quality with the lowest environmental impact.
- It is essential for the health and wellness of the population to have easy access to (preserved) natural environments. Similar to inland landscapes, the coasts, beaches and lagoons should be conserved and protected from loss of identity and be more accessible to tourists and locals alike.
- Drive towards healthier lifestyles will generate demand for a range of health and well-being, and recreation and sports facilities in both the countryside and the coast.
- Opportunities for re-purposing and retrofitting existing legacy sites and buildings to contain coastal sprawl/ad hoc development and reduce demand for new greenfield sites.
- Support options for coastal regeneration clusters that can help sustain local communities and traditional workforce skills.
- Maintain established coastal linkages and travel patterns for social cohesion, with a focus on affordable and equitable access for all.



## 4.5. Protecting the Best of Mauritius

### 4.5.1. Design Quality and Sustainable Development

Mauritius is blessed with many natural, cultural, and built assets. It is important that this capital is enhanced and not depleted over the plan period. This can be achieved through protecting the best assets, enhancing those with potential and ensuring that new development adds to the value of the natural and build capital of the island.

#### **SP14 Design Quality and Sustainable Development (*SP13*)**

The built and natural environment of Mauritius should be maintained and enhanced so that they are desirable places to live, meeting the day-to-day lifestyle needs of the residents whilst protecting the natural assets of the island. New development should have regard to detailed policies contained in Outline Planning Schemes and Planning Policy Guidance aimed to preserving and enhancing the environment of Mauritius.

#### Reasoned Justification

A range of Planning Policy Guidance notes and Technical Design sheets are in place to help ensure the delivery of high-quality development that meets relevant planning and design parameters appropriate to the type and location of each proposal. The role of the National Land Development Strategy is to elevate the importance of design in the decision-making process in the interests of better quality sustainable development.

A key objective of the Strategy is to promote liveable communities and good design is an essential component in achieving high-quality places where people want to live, work and visit. Quality design is fundamental to any sustainable growth or redevelopment strategy in urban, rural, or coastal areas.

#### Modification Justification

- Policy updated to reflect the important role of Planning Policy Guidance in ensuring design quality and sustainable development is achieved in Mauritius.

### 4.5.2. World Heritage Sites

Integrating the value of cultural and natural heritage in formulating strategic policies is critical. Invaluable natural and built assets should be preserved and protected from visually intrusive development. Since the publication of the last NDS, Mauritius has seen two sites designated as World Heritage Sites by UNESCO. Aapravasi Ghat in Port Louis was inscribed in 2006 and Le Morne in the south west was inscribed in 2008. Aapravasi Ghat was the site where over half a million indentured labourers arrived from India to work in Mauritius or be transferred to other parts of the world as part of what was called ‘the great experiment’ to replace slavery. Despite only half of the original site remaining, the site still has many original features of historical and cultural significance.

Le Morne Cultural Landscape is a prominent natural feature that is inscribed on the UNESCO list due to its association with resistance to slavery, where escaped slaves sheltered in small caves and on the summit of the mountain, escaping onward transfer into slavery.

#### **SP15 World Heritage Sites (*New Policy*)**

Development in World Heritage Sites and their settings, including any buffer zones, should conserve, promote and make appropriate use of cultural asset. Development should conserve and enhance the authenticity, integrity and significance of the World Heritage Site in accord with UNESCO guidelines and PPG 6. Outline Planning Schemes should safeguard both the site and its setting. Where available, World Heritage Site Management Plans should be used to inform the Outline Planning Scheme.

#### **Reasoned Justification**

UNESCO World Heritage Sites are recognised for their global cultural heritage significance and are key features of the country’s identity. As such Mauritius has made a commitment to protecting, conserving, presenting and transmitting to future generations the Outstanding Universal Value of World Heritage Sites.

The context of the two World Heritage Sites is distinctive with the qualities of each conditioned by the character and form of the surroundings as well as other cultural, intellectual, spatial or functional relationships. The context of each Site therefore needs to be carefully protected, managed and enhanced to ensure their attributes are secured and their future Outstanding Universal Value is not degraded or compromised.

## 6-1 Draft National Land Development Strategy

The need to revitalise the waterfront of Port Louis needs to be managed in the context of Aapravasi Ghat. Changes to the setting can have an adverse, neutral or beneficial impact on the ability to appreciate the sites' Outstanding Universal Value. The Area Action Plan developed for Aapravasi Ghat World Heritage Site provides the planning and design guidance for the historic waterfront of Port Louis and should form a key part in the design and decision-making process for all new development in the Site and its buffer.

Planning Policy Guidance 2: Le Morne Cultural Landscape' provides the design guidance for Le Morne World Heritage Site. The PPG also refers to Design Sheets, Design Guidance and Technical Sheets that have relevance to the World Heritage Site, namely:

- Design Sheets for Design for Sloping Sites
- Design Sheets for Residential Coastal Development
- Design Guidance for Hotels and Integrated Resorts Development
- Technical Sheets for Provision of Infrastructure.

### New Policy Justification:

- Revitalise and incentivise urban and rural regeneration including cultural heritage attractions on the coast and inland.
- Increased demand for a range of general and specialist leisure and cultural heritage services, including from an aging population.
- Ensure equitable distribution of range of cultural heritage facilities and attractions in urban and rural areas.
- Make optimum awareness and enjoyment of existing cultural heritage assets and their settings using environmentally sound technologies, smart mobility and traffic demand management measures.

### 4.5.3. Green and Blue Corridors

The natural landscape of Mauritius provides many opportunities for sustainable land uses that work with nature, utilising its qualities. Green and blue corridors extend across the Island, providing strategic corridors for flora and fauna.

#### **SP16 Green and Blue Corridors (ENV11)**

The creation of an integrated network of green and blue corridors that enables rural regeneration, supports environmental management and sustains community cohesion should be prioritised. Multi-modal connectivity between the conurbation and the economic, social, cultural and environmental assets of the countryside should be enhanced.

In coastal areas the creation of corridors that run perpendicular to the coastline should be explored in addition to the coastal route promoted in TM7 to improve inland tourism linkages and opportunities.

### Reasoned Justification

As a counterbalancing measure to the economic pull of the conurbation and the transport infrastructure investment already committed there, the new NLDS identifies and promotes the concept of integrated green and blue corridors to enable rural regeneration, environmental management and community cohesion through enhanced multi-modal connectivity between the conurbation and the countryside. The green and blue corridors would comprise both hard infrastructure (new greened highway and rural road ROWs incorporating cycleways and footpath networks) and nature-based infrastructure (river valleys, rivulets and streams, nature trails, hiking pathways and publicly- accessible sugar cane tracts).

Over the plan period an integrated network of green and blue corridors should be identified in updated Outline Planning Schemes and incrementally implemented through incentives and initiatives including a mix of public- private partnerships and rural regeneration initiatives. New or upgraded access would be created to stimulate agri-tech and food-processing MSME clusters, promote authentic eco-tourism, agri-tourism and educational tourism sites and signpost inland cultural heritage sites. Other potential nature-and water-based health, well-being and sports attractions including passive and active use and enjoyment of publicly accessible lakes, reservoirs and coastal landscapes should also be considered for inclusion.

### Modification Justification

- Increased emphasis on blue and green infrastructure connectivity creating a continuous network of corridors.
- Creation of strategic connections between the conurbation and the countryside.
- Promotion on green corridors that connect coastlines to the inland environments.
- Emphasising the benefits to flora, fauna and biodiversity enhancement of such corridors.

#### 4.5.4. Bad Neighbour Uses and Buffer Zones

Bad Neighbour Uses are identified as such as they can impact on the health and well-being of those living, working or undertaken leisure activities close to them. As urban areas and settlements have expanded the conflict between human settlements and bad neighbour uses has increased.

To address these adverse effects, Government proposed policies prohibiting sensitive land uses development within 1 km of a bad neighbour development including rock quarries and stone crushing plants. The 1km distance being known as a buffer zone. For clarification and in accordance with the UK Privy Council ruling on buffer zones this NLDS defines the extent of a buffer zone as a minimum of 1km distance from a bad neighbour land use as defined by the Ministry of Environment, Solid Waste Management and Climate Change (MESWMCC).

### **SP17: Buffers to Bad Neighbour Uses**

No sensitive land use will be permitted within 1km of existing bad neighbour uses.

No new bad neighbour uses will be permitted within 1km of existing or planned sensitive uses as defined in more detailed planning policy documents brought forward under the 1954 Town and Country Planning Act or the Planning and Development Act 2004.

The 1km buffer will be measured from the edge of the operational area of the existing or planned bad neighbour and the nearest plot boundary of the sensitive use.

Planning Policy Guidance should be updated to reflect the provisions of this policy, in particular the section on “Industry Adjacent to Sensitive Uses”.

### **Reasoned Justification**

Within the buffer zone around bad neighbour industries, sensitive uses including residential development, schools and health facilities will not be permitted. To permit such development would be to create a potential conflict between the new home- owners or occupiers and the bad neighbour use/operator. Such conflicts are to be avoided by prudent planning, emissions monitoring and operating licence conditions enforcement.

In the case of rock excavations and crushing plants these activities tend not to be sited next to each other but to be in separate locations. The buffer or development exclusion zone applies to both the place where the rock material is being won and the place where crushing, screening and stockpiling is being carried out.

In other cases, where practicable, new bad neighbour uses should be clustered on a single well accessed and serviced site, preserving the minimum buffer distance of 1km from sensitive land uses.

Where bad neighbour operations are being intensified at existing sites, consideration should be given by responsible authorities to incentivizing promoters and operators to use environmentally -sound technologies to mitigate adverse environmental impacts on existing nearby sensitive land uses.

Planning Policy Guidance relating to Industry adjacent to Sensitive Uses and Bad Neighbour Buffers should be amendment in line with the policy. It is particularly important that the guidance supports the policy position, removing the unclear and contradictory guidance to the buffer distance being “up to 1Km” and the 1km being “considered to be the minimum/maximum distance”.

### Modification Justification

- The Policy provides a single, clear strategic planning policy position on Buffer Zones and Bad Neighbour Uses.
- Policy protects the Privy Council decision on the legality of the 1km buffer, strengthening the presumption against development within 1km of the buffer.

## 4.6. Sustainable Transport

Sustainable transport can play an important role in meeting the vision and objectives of the National Land Development Strategy. Likewise, the location of development in the appropriate places can support the Government’s integrated transport strategy. Significant investment has been made in public transport since 2003 and the transformative Metro Express project that provides high quality transport connectivity through large parts of the conurbation. It is therefore imperative that the land use strategy leverages this investment and enables further expansion of the public transport network. By shaping the pattern of development and influencing the location, scale, density, design and mixed of land uses, the need to travel the distance required to travel and related energy consumption can all be reduced.

### SP18 Sustainable Travel Modes (*SP4*)

Major new developments need to be located and designed in a way that helps:

- reduce the need to travel.
- reduce the distance travelled, especially by car.

and in a way that enables mode shift from car to active travel modes and public transport.

Equitable accessibility and mobility for all communities is a policy objective. The policy target is to provide equivalent travel times by public and by private transport within urban areas. Extension of public transport operating times needs to be encouraged, as is extended provision of appropriate public transport in rural areas.

Strategies and policies need to:

- reduce the adverse impact of transport in the community through the provision of safe and better streets.
- encourage the switch to healthy travel modes with the development of comprehensive pedestrian and cycling networks.

Traffic demand management is needed in the Conurbation, to help reduce and control the ever increasing volume of motorised vehicles – in particular into and out of Port Louis at peak periods.

The integration of sustainable transport modes, particularly around urban and rural terminals, should be supported with a focus on investing in the public realm for those within walking catchment of the station, and cycle routes and bus feeders for those outside the catchment (walking catchment can typically be up to 800m for high quality public transport such as the Metro Express).

Traffic and environmental management schemes are needed to assist with the reallocation of road space in favour of sustainable travel modes in general, and regeneration uses in town centres in particular.

### Reasoned Justification

The integration of transport planning and land use planning is more important now than ever. With the investment in higher quality public transport and the need to tackle climate change, the promotion of sustainable transport modes to serve existing and new development is vital. Increased emphasis needs to be placed on non-motorised transport modes with linkages to built environment policies to enhance the public realm of centres and to enable safe walking and cycling from nearby residential and commercial premises.

The investment in the Metro Express has created a high-quality system that is made up of the tracks, stations and rolling stock. Public realm enhancement is needed to complement this investment, starting at the metro stations and extending outwards into the surrounding neighbourhood. The first mile is recognised as being particularly important in influencing

journey mode choices. People need to feel safe and comfortable at each end of their metro journey for the journey to be an alternative of choice to the private car. In addition to walking and cycling the integration of the bus network with the metro (including ticketing and fares) is also important in creating a seamless system.

### Modification Justification

- Policy updated to reflect role of public transport and in particular Metro Express on shaping land use planning.
- Greater support for walking and cycling as part of sustainable travel mix.
- Promotion of demand management as part of sustainable travel strategy.

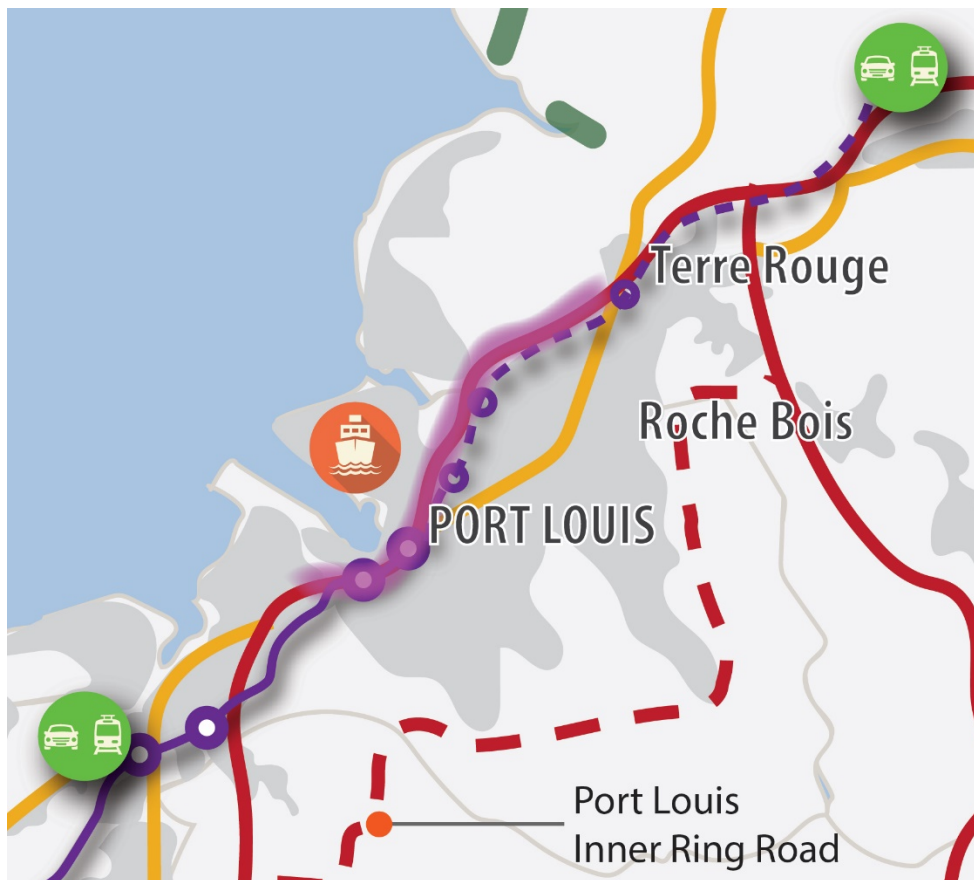


FIGURE 18 SPATIAL DIAGRAM: TRANSPORT AND MOVEMENT: PORT LOUIS INSET



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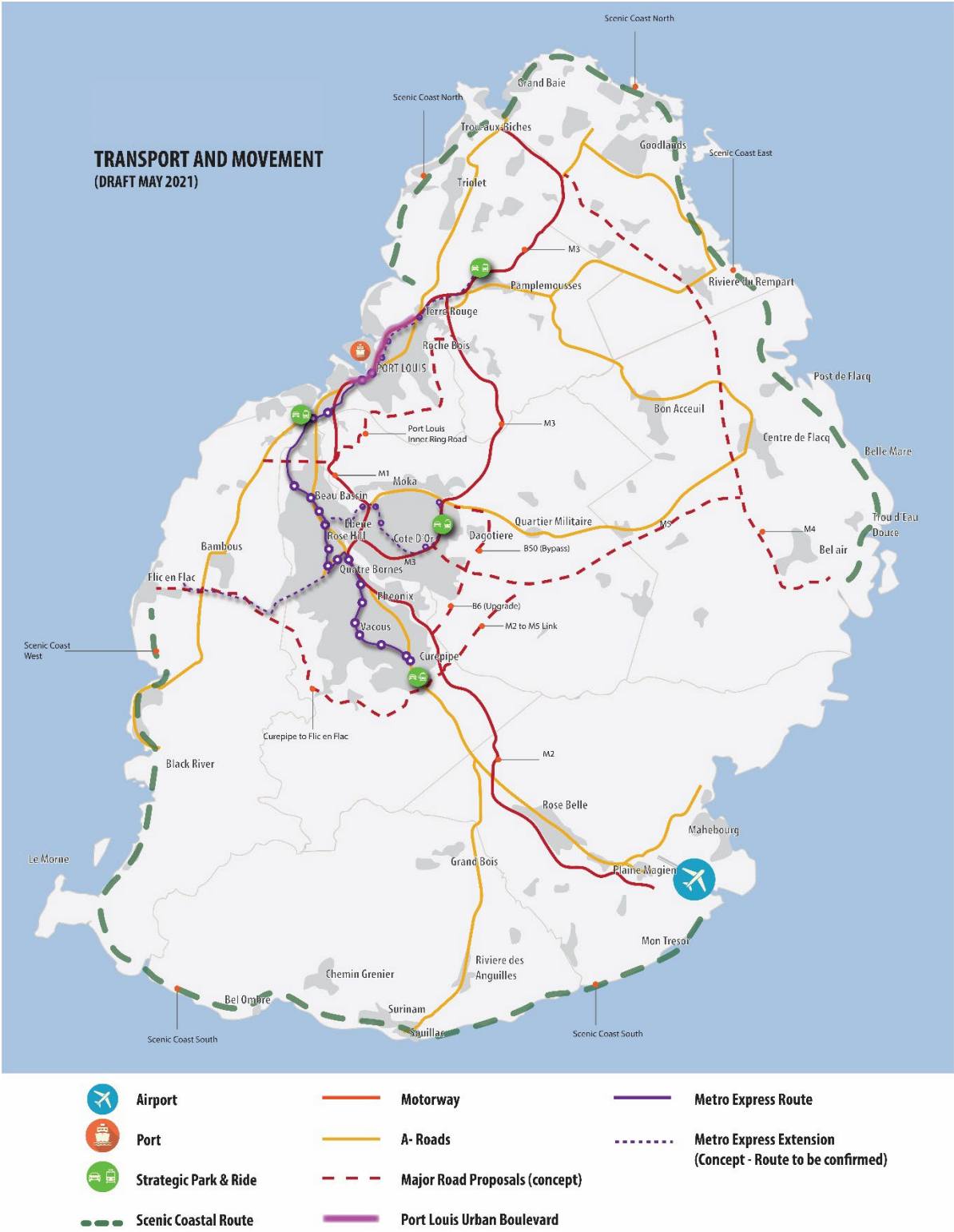


FIGURE 19 SPATIAL DIAGRAM: TRANSPORT AND MOVEMENT

## 4.7. Delivering Quality

There are several pieces in the planning toolkit that can contribute to the delivery of quality development and protection of protected assets. Additional guidance and policy can be provided through Planning Policy Guidance Notes or Area Action Plans. These may be based on policies, standards, development codes, urban design masterplans or frameworks. The tool chosen is based on the issue to be addressed and the resources available. Site based approaches such as codes, masterplans and frameworks are valuable in ensuring design parameters such as land use, densities and heights are controlled whilst ensuring that transport connectivity by different modes is integrated into the design process.

For larger developments and for development close to legally protected sites there is a need to ensure that development does not cause harm or damage to existing environments or infrastructure. In these instances, developers will be asked to provide Environmental and/or transport assessments to demonstrate the impacts of new development can be avoided or substantially mitigated.

### **SP19 Supplementary Policy Guidance (*SP18 and SP19*)**

Supplementary Policy Guidance in the form of Planning Policy Guidance or Area Action Plans can provide greater clarity for developers and planning officers. Developers should have regard to the detailed guidelines and requirements set out in Planning Policy Guidance in the design of new development. For larger developments, a master plan should be prepared to ensure that a multi-disciplinary area-wide approach to new development is undertaken. Additional policy and guidelines can be developed through the production of Action Area Plans where resources allow.

### Reasoned Justification

Supplementary Planning Guidance forms an important part of Planning Policy in Mauritius and form part of the National Land Development Strategy. They are designed to translate national policies to site specific situations, aiding architects, engineers and planners. Guidance notes are used by officers involved in development control decision making at central and local levels.

Action Area Plans enable an area-wide approach to planning for major developments and land use control measures. They should be drawn up for regeneration areas, town centres, rural centres, special use zones and tourism areas. In preparing such plans, consideration should be given to the integration of public transport, education, health and open space facilities. They should also incorporate the protection and enhancement of natural systems. They should also

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include adequate provision of utilities and access to the existing road system, implementing necessary upgrades identified through a Transport Assessment.

### Modification Justification

- Policy title has been updated to better reflect the position of Planning Policy Guidance and Action Area Plans in the planning policy hierarchy.
- Policy wording has been simplified to focus on the use and implementation of Supplementary Policy Guidance.

### **SP20 Environmental Reporting and Assessment (SP20)**

Requirements for EIAs are set out in the Environmental Protection Act 2002 and amendments. EIAs should be prepared by promoters at the project planning stage in consultation with Central Government and local authority agencies.

### Reasoned Justification

The intent of Policy SP20 is to reinforce the relationship between land use and environmental planning during the initial stages of the planning process. Environmental assessment is a technique which should be deployed through the feasibility planning and design stages of major projects to assist in identifying potential impacts and their mitigation, and to make realistic proposals to improve the project design in order to overcome or offset the negative impacts. It should also identify mechanisms for effective implementation, mitigation, monitoring, management and aftercare. Such actions will involve both public and private sector agencies without such co-operation the environmental assets of Mauritius will be irreversibly damaged.

Provision is made for the preparation of Preliminary Environment Reports and Environmental Impact Assessments under the EPA 2002. Parts A, B and C of the First Schedule to that Act identify projects for which Preliminary Reports (Part A) and EIAs (Parts B and C) will be required for submission to and scrutiny by the Ministry of Environment.

### Modification Justification

- Simplification of the policy in recognition of the Environmental Protection Act 2002 providing the legal basis of Environmental Impact Assessments and the scope for their use.

### **SP20 Transport Assessment (SP21)**

Where developments will have significant transport implications, Transport Assessments should be prepared by scheme promoters and submitted alongside the relevant planning applications for development. The coverage and detail of the Transport Assessment should reflect the scale of development and the extent of the transport implications of the proposal. For small schemes, the Transport Assessment should simply outline the transport aspects of the application. For major proposals, the assessment should illustrate accessibility to the site by all modes and the likely modals split of journeys to and from the site. It should also give details of proposed measures to improve access by public transport, walking and in appropriate cases cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.

Where proposals do not include a range of measures to improve the access to the site by non-car modes, the Transport Assessment should include an illustration of the potential mode split to the site if such measures were included.

### **Reasoned Justification**

Transport Assessments are an important part of the transportation planning process and help ensure that sufficient capacity exists to accommodate development without causing detrimental impact to the transport network. They will also identify where access is unsafe or inappropriate, particularly where larger vehicle movements are expected. Prospective developers are encouraged to hold early discussions with MPI and RDA to clarify the need and scope of any Transport Assessment. It is likely that those schemes that are part of the Development Plan (National Development Plan and Outline Planning Schemes) will require less scrutiny than those that are not.

The Transport Assessment will enable decision makers to better understand the impact of development on the existing transport network, identifying potential mitigation and improvements that are required. They should also help determine the level of car parking, taking access to public transport into consideration whilst also covering the connectivity by walking and cycling.

## 4.8. Climate Change and Climate Responsiveness

Climate change is an acknowledged fact, and its potential effects pervade all aspects of society and development. Climate change mitigation or adaptation must be incorporated into all development plans by all implementing agencies. Mauritius as a Small Island Developing State is exceptionally vulnerable to extreme weather events. Integrating Climate Change into Coastal Planning and Management in the Republic of Mauritius 2013 noted that “the effects of rising sea levels (that) will effectively shift the coastal zone in a landward direction. Thus, it is clear that a consideration of climate change is paramount in a comprehensive and inclusive system for coastal planning and management.”

In the short term more intense cyclones, higher storm surge, heavier rainfall, flash floods, landslides on steep slopes, longer periods of drought, water shortages, higher temperatures with associated health effects, and greater demands for air conditioning may all be expected. In the long-term sea level rise may pose a threat to low lying coastal areas and communities.

### **SP21 Climate Change and Responsiveness**

All potential impacts of climate change must be factored into long term planning decisions. This requires collaboration between all Government, private sector and community stakeholders on cross cutting issues in a Ridge to Reef approach to climate change and responsiveness.

In accord with international conventions on the amount of land that should be included in Protected Areas and climate change responsiveness measures, consideration should be given by responsible authorities to adopting a Ridge to Reef approach including:

- incrementally increasing the amount of land under afforestation,
- creating biodiversity zones and geoparks managed through public private and local community partnerships,
- re-use of abandoned sugar lands for ecological, educational or outdoor recreational purposes,
- enhancing and connecting national and regional green and blue infrastructure networks,
- expanding green space and usable open space provision in Smart Cities, expansion zones and planned new communities and major morcellement sites.

### Reasoned Justification

Need to reflect major changes in approach to climate change since 2003. There is a need to reflect major changes in approach to climate change since 2003. The National Climate Change Adaptation Policy Framework for the Republic of Mauritius 2012 aims at integrating climate change into core development policies, strategies and plans. The main objectives of this Framework are to enhance the resilience of key economic sectors, mitigate risks and damages to human settlements, infrastructure and avoid the loss of lives due to extreme climatic events.

As a signatory to the 2015 Paris Climate Accord Mauritius has a major commitment to limiting global warming. As of July 2020, the Climate Change Bill was under preparation to improve Mauritius's capacity to adapt to the growing negative impacts of climate change while promoting sustainable development.

Government and society need to become fully aware of the value of the services that ecosystems render. Coastal mangroves, seagrass and coral communities buffer the impact of sea level rise. In so doing, they reduce coastal erosion, reducing infrastructure rehabilitation costs. But to perform their services, they are also dependant on the wetlands, tidal marshes and sand dunes next to them, as they absorb and filter surface runoff of chemical fertilisers and pesticides. Their destruction through land clearing and construction cause mangroves, seagrass and corals to be directly impacted and thus more degraded by water surface runoff. These natural barriers against coastal erosion thus become weaker and eventually disappear altogether.

The concept of Ridge-to-Reef needs to be integrated in the new NLDS with consideration of, among other influences:

- the integration of the land drainage network to minimize drains discharging stormwater laden with pollutants directly into the lagoon.
- the integration of wastewater management to stop untreated or inadequately treated sewage from coastal urbanization getting into the lagoon (target of 80% of the population connected to the national sewer network by 2030).
- the integration of river reserves rehabilitation to reduce the sediment load in the lagoon.
- the integration of wetland conservation and restoration to protect beaches and the lagoon.



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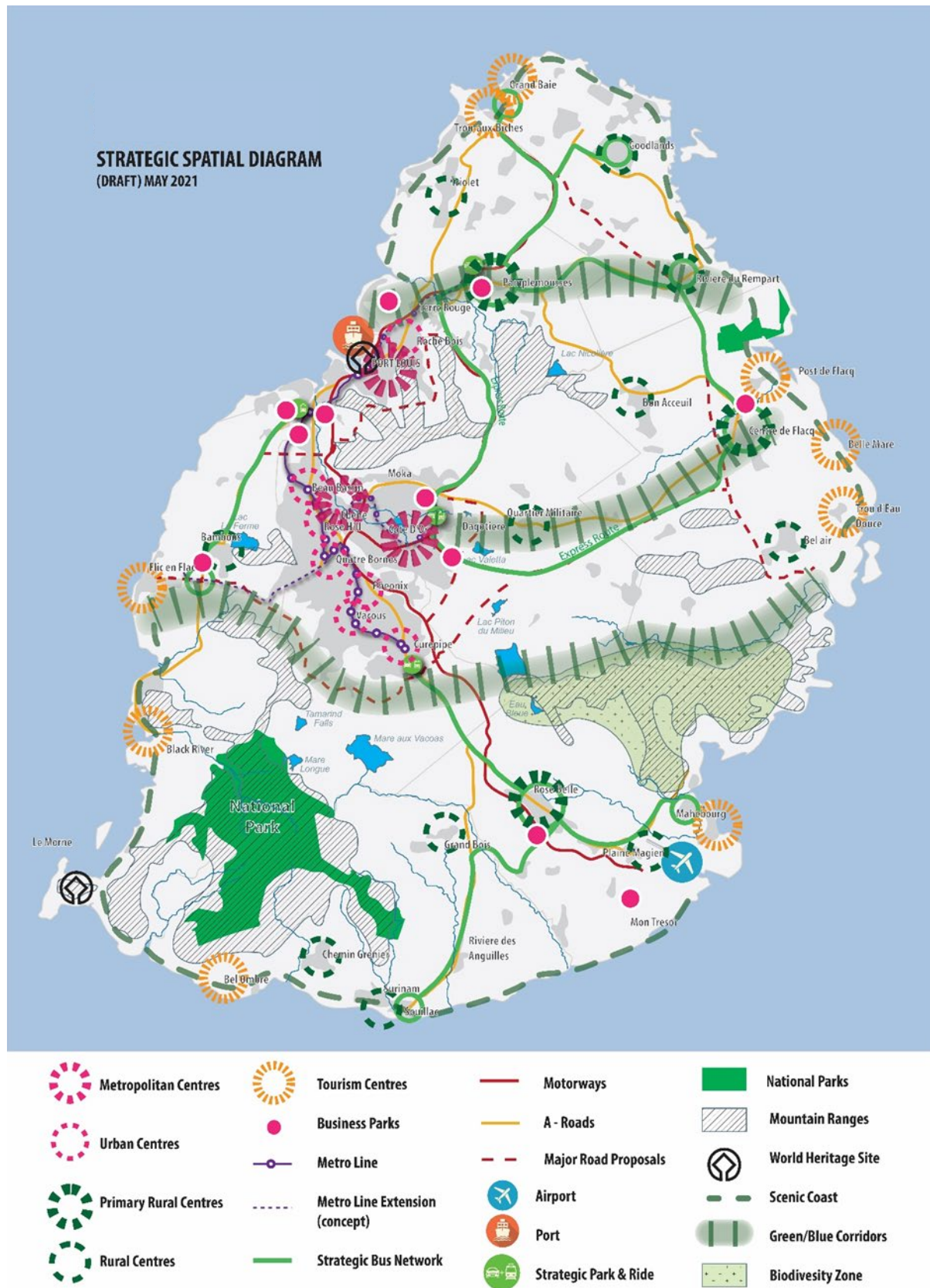


FIGURE 20 STRATEGIC SPATIAL DIAGRAM

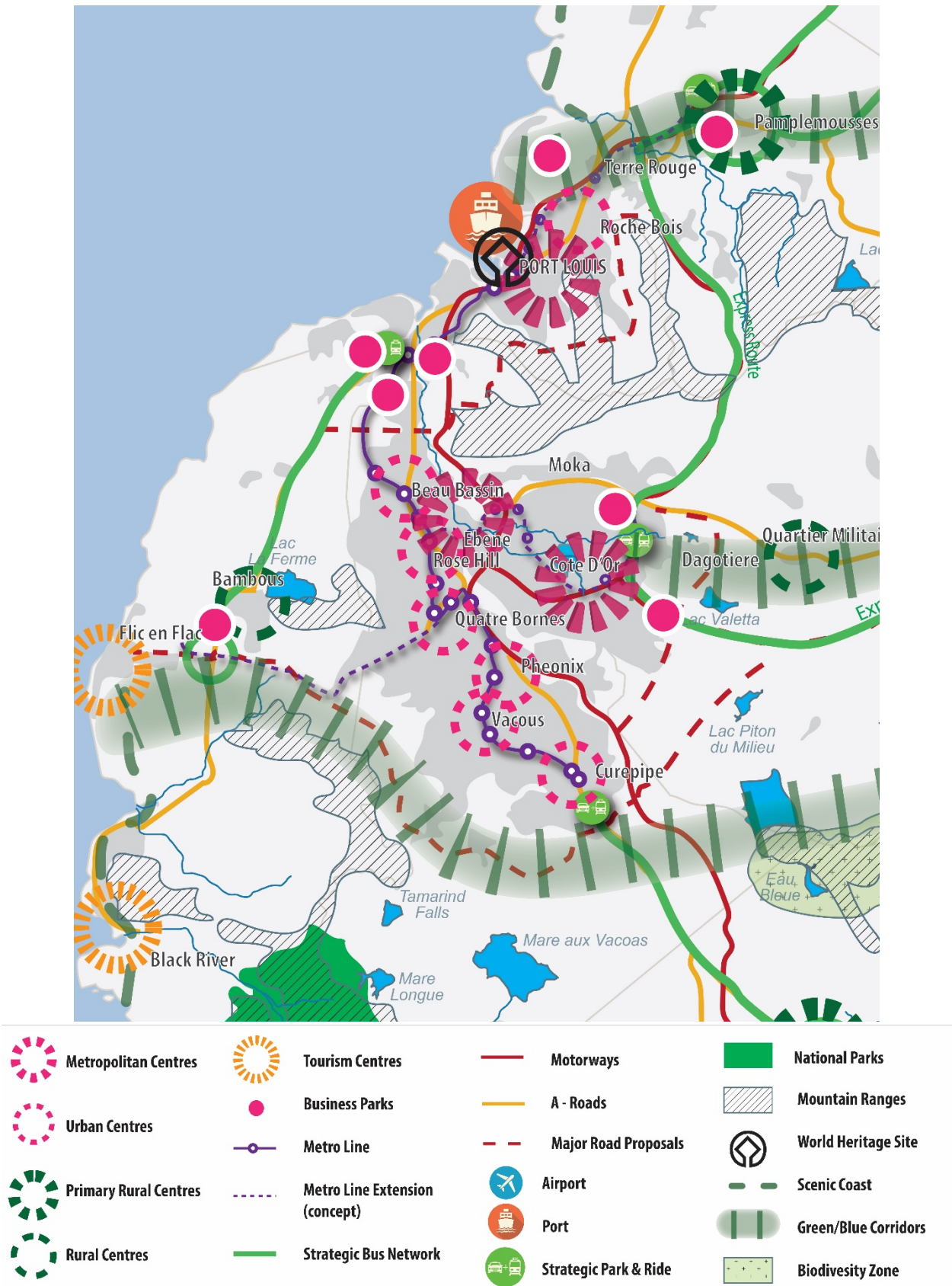


FIGURE 21 STRATEGIC SPATIAL DIAGRAM: CONURBATION INSET



## **5. Liveable Communities**

### **5.1. Overview**

Liveable Communities are community units at different scales that enable residents to access a range of housing options, meet their everyday needs in terms of work, education, healthcare, leisure (including open space) and public transport. Where possible facilities should be within walking distance (400m to 800m) of most residents or accessible via public transport which in turn is accessible via public transport at either end. This ensures that the provision of facilities is based on the neighbourhood unit. Most towns and villages outside the conurbation are at a scale whereby the walkability standards are achievable. Within the conurbation the traditional centres around which the conurbation has coalesced and developed provide the natural centres for the walkable catchments. In many instances these are being reinforced by the implementation of the metro line. It is important that new development in the form of urban extensions follows the same principles of providing a series of liveable, walkable communities. This section provides the policy framework for the delivery of liveable communities as part of the National Land Development Strategy.

### **5.2. Residential Land Strategy**

There is a need to balance the need to meet the housing requirements of Mauritius with the need to protect the environment whilst ensuring sustainable development. The policy seeks to provide support for investment in public transit infrastructure by locating development close to existing or proposed routes and stops. It also seeks to ensure that uncontrolled urban sprawl does not damage the landscape character of the rural area. Housing demand assessment (see section 2) has calculated that 47,000 new dwellings are required over the plan period with a further 23,000 required to meet unmet demand between 2011 and 2020. At an average of 25 dwellings per hectare this would see around 2,800 hectares of land developed for residential development. Increasing the average to 40 dwellings per hectare reduces this demand to 1,750ha.

#### **5.2.1. Residential Land Requirements**

A key part of the residential land strategy is to provide opportunities for more housing choice with higher density development constructed in the right places. Infill and redevelopment have provided a notable contribution to meeting housing demand. This is expected to continue with locations in the conurbation well served by public transport being promoted for urban

redevelopment. Development in these locations reduces the demand for greenfield sites, reinvigorates urban communities and makes best use of existing infrastructure.

### **H1 Residential Land Allocation**

The release of new sites for residential development should follow a sequential approach. Redevelopment of existing urban land and planned urban extensions will be prioritised, subject to meeting the provisions of Policy SP17 on Bad Neighbour Uses and Buffer Zones. There will be a presumption against development outside of limits of permitted development as identified by the Outline Planning Schemes.

#### **Reasoned Justification**

The supply of residential land already converted from sugar together with significant more supply in the pipeline, together with infill and redevelopment indicates there is no requirement for major new residential land allocations in the plan period. Significant investment in infrastructure has been undertaken by both the public and private sector and it is therefore essential that sites already serviced are built out. There therefore be a general presumption against development outside of existing settlements or land already identified for urban expansion in the Outline Planning Schemes. There are no proposals to reduce the limits of permitted development within the Outline Planning Schemes once renewed unless there are new overriding environmental reasons that would indicate that sites should not be brought forward for development.

The provisions set out in Policy SP17 on Bad Neighbour Uses and Buffer Zones override any provision set out in Policy H1. This is to ensure that no new housing development encroaches on the 1Km buffer zone for the protection of existing uses and future residents. This supports the existing protection given by Policy H1 as confirmed by the Privy Council judgement of 22<sup>nd</sup> January 2018 in *Beau Songe Development Limited (Appellant) v The United Basalt Products Limited and another (Respondents) (Mauritius)*.

#### **Modification Justification**

- Simplification of policy to reemphasise the sequential approach and general presumption against development outside of committed development sites identified in the Outline Planning Schemes.

### 5.2.2. Land Conversion Schemes

Land Conversion Schemes have taken many different forms over the past two decades. Together they have contributed to a significant proportion of land supply that has emerged over that time period with large areas yet to be developed. As a significant contributor to land supply in Mauritius it is important that land conversion schemes are brought forward in line with the land use planning principles outlined in the NLDS. Due to the nature of the sites original agricultural use, almost all the sites are located outside settlement boundaries. Preliminary discussions with the Planning Division of the Ministry of Housing and Land Use Planning should be undertaken prior to any conversion schemes being approved. This is ensure that the new development sites are broadly in line with the land use planning strategy.

#### **H2 Development within Settlement Limits (H4)**

Housing Proposals for sites located within settlement limits will normally be approved provided the site is integrated with the existing social, transport and utility infrastructure networks and does not lead to a reduction in the amount of green space in the settlement.

The development of previously developed land (brownfield land) within existing settlements will be supported if it does not lead to a reduction of urban green space or impinge on natural systems. New development will be required to meet design guidance as set out in Planning Policy Guidance and ensure that any contaminants are removed or mitigated to international best practice standards.

#### Reasoned Justification

The policy seeks to encourage the use of previously used and underused land in settlements whilst protecting green spaces from development. As the economic profile of Mauritius changes, old industrial sites will become available. It is important that such sites are reused for positive uses, including housing. Such sites can contribute to the residential land supply, reducing the need for greenfield development.

#### Modification Justification

- Policy has been amended to ensure that urban green space is protected from development and retained as a social infrastructure asset. Additional emphasis is given to the use of previously used land.

### 5.2.3. National Housing Development Corporation (NHDC) Schemes

The National Housing Development Corporation (NHDC) is the executive arm of the Housing Division of MHLUP, responsible for the implementation of the Government's social housing programme. The Ministry implements housing projects promoting home ownership for all Mauritians the scheme targeting families earning an income of up to Rs 30,000 through the NHDC Ltd, its implementing agency. Since the last NDS the type of housing units has been enhanced and now accommodate at least 2 bedrooms, 1 kitchen, 1 living room, 1 toilet and 1 bathroom. Social and recreational amenities are provided within the housing estates, where required, so as to better integrate the residents within these housing estates.

Home ownership is promoted through the Roof Slab Grant Scheme, encouraging self-help construction for those who own a plot but are unable to construct a concrete housing unit for financial reasons.

The level of subsidy for new housing units is dependent upon income with the lowest income households eligible for 2/3 subsidy on units with a sliding scale as household income increases. A ground lease is also applied to the plots with a similar sliding scale system in place, starting at just 1 MUR for those on the lowest incomes.

Since 2015 2,378 properties have been constructed under the scheme with 3,880 in the pipeline and a further 6,000 units on sites identified for housing.

### **H3 Land Conversion and NHDC Schemes (H2)**

Land committed in the Outline Planning Schemes for private and public sector residential development under the Land Conversion and NHDC Schemes will be prioritised. Additional land brought forward through the schemes should be located within or adjacent to existing settlements to ensure that schemes are fully integrated into the physical and social infrastructure of existing settlements, subject to meeting environmental and social requirements for new development.

### Reasoned Justification

Those on low incomes are more dependent on public transport and the ability to access basic goods and services by walking and cycling. It is therefore essential that they are integrated into existing settlements and have access to schools, shops, open spaces, and public transport. Integration will also ensure that the developments do not add additional cost to the public purse through increased cost of connection to the utility networks. Sites that have been

development and identified should be as physically connected as possible through the provision of safe pedestrian and cycle paths whilst new sites should be integrated from the outset.

### Modification Justification

- Policy expanded to ensure that the social needs of residents are met in determining the location of new schemes.

## 5.3. Designing Mauritius's Housing and Neighbourhoods

A fundamental part of sustainable communities is the creation and preservation of place where people choose to live. The design of individual housing units and neighbourhoods contributes to the collective sense of quality of place. New housing development should address the wider objectives of the NLDS, enhancing the environment of Mauritius as a whole. Many urban areas are characterised by dwellings with gardens, with the gardens providing urban greenery. It is therefore important that new development responds to and protects the characteristics of neighbourhoods.

Some neighbourhoods will require renewal over the plan period. Renewal can operate at different scales from the individual unit to complete neighbourhood renewal strategies. It is imperative that where renewal is planned the replacement dwellings and urban environment are built with the long-term needs of residents in mind, providing flexibility to respond to changes in working and travel demands. Supplementary Planning Policy Guidance provides more detail on requirements for new housing.

### H4 Residential Design

Housing developments should be of the highest quality internally, externally and in relation to their context and wider environment. New housing developments, including morcellements, should follow the appropriate design guidance as set out in Planning Policy Guidance subject to any additional policies as set out in the Outline Planning Schemes or Area Action Plans. Outline Planning Schemes should consider introducing policies to expand provision of green space and usable public open space in new housing developments and morcellements and avoiding over intensification through redevelopment or development in gardens where this can be locally justified. Residential sites and housing units should integrate climate change mitigation measures to reduce the impact of new housing.

### Reasoned Justification

Residential development is the dominant built form in Mauritius. It is also the development that impacts on the well-being of residents most. Housing can be built at different densities and in different locations but regardless of these factors it is important that housing is fit for purpose, provides safe and comfortable living with flexibility to adapt to changing circumstances. They should look to follow the principles of lifetime homes, providing living environments that can adapt to the resident's individual needs, particularly as residents get older.

They should also be adaptable to the challenges of climate change with a greater emphasis on environmental building standards, integration of renewable energy generation and provision of charging points for electric vehicles.

Residential development extends beyond the housing unit. Residential development should form part of a mixed-use neighbourhood that includes the provision of local retail services and access to open space and recreation. Climate adaptability is also important at the site level with sustainable drainage systems introduced as part of a wider water management and flood mitigation strategy.

### New Policy Justification

- The policy seeks to ensure that all new housing development adds to the built capital of Mauritius, providing housing that will endure for years to come.

### H5 Residential Densities

There will be a sequential approach to the provision of higher density housing applied in most settlements. Higher densities should be located within Urban Centres, with densities gradually declining as you move away from the centre. Greater design input for higher density development will be required to protect the existing urban character and amenity of the settlement. In Rural Centres higher densities will also be encouraged where it can be demonstrated that it does not impact on the character or setting of the wider settlement. Consideration needs to be given to building height and form and the appropriate provision of car parking for residents on-site.

### Reasoned Justification

Marginal increases in density can reduce the need for greenfield development, helping to reduce pressure on environmental sites. It also reduces infrastructure costs as more properties are served by the same length of roads, pipes, wires etc. Higher residential densities are also

critical to support viable public transport networks, with metro services requiring higher densities than bus services. By locating higher densities in Urban Centres, a density profile is established whereby more people are located within walking distance of shops, services, and public transport stations.

Increased densities do not automatically equate to the development of tall buildings. Some of the most densely populated urban settlements in the world are typically made up of four and five storey buildings, organised on a grid system. Where higher densities are proposed it is important that the development does not detract from the form and character of the surrounding development. The proposed built form, massing, site layout, external spaces, internal design, and ongoing management require increased scrutiny as density increases as these elements come under more pressures as density increases.

### Modification Justification:

- Policy updated to reflect new terminology and ensure that urban character, height, form and car parking requirement of new development are considered.

### **H6 Sustainable Neighbourhoods**

Both small scale and large-scale developments should provide a mix of housing types and sizes to encourage greater social diversity across neighbourhoods, thus enabling families to continue to live close together.

### Reasoned Justification

The policy seeks to ensure that as families develop and housing requirements change, residents can find suitable, affordable housing in the neighbourhoods they consider home. This helps to preserve family and community cohesion and avoiding the ghettoization of settlements, which can lead to local people being priced out the housing market.

### **H7 Neighbourhood Renewal**

Residential areas within existing settlement requiring upgrading are identified in Outline Planning Schemes. Redevelopment of settlements in situ is preferred to enable residents to remain within their existing neighbourhoods. A renewal plan should be drawn up to identify the most effective way of delivering renewal, whether that be at the street neighbourhood level. Where relocation is required prioritisation should be given to those dwellings that are

located in flood prone areas. If relocation is being considered the planning approach outlined in Policies H1 and H2 should be followed to identify suitable sites.

### Reasoned Justification

Much progress has been made over the past two decades in enhancing the living standards of those in the poorest neighbourhoods. Declining neighbourhoods undermines confidence in an area and places increased pressure on social schemes to address social and environment problems. In declining neighbourhoods there is little incentive to invest in the maintenance or upgrade of property as the underlying asset declines in value. This leads to further decline, resulting in a vicious circle. Breaking this circle through urban renewal is vital for the long-term health and well-being of the neighbourhood and its residents.

A general principle is to enable existing residents to remain in their existing neighbourhood wherever possible. They are the people with the most invested in the neighbourhood, both in financial and social terms.

There is not a one size fits all solution to renewal. In some instances, renewal can be done on a house-by-house basis. In other instances, it may be better to implement area wide renewal across a larger area if a more efficient redevelopment option is possible.

One of the key driving forces behind renewal, and in particular the removal of substandard properties is the danger of flooding. It is therefore important that all dwellings are located in safe areas away from danger (e.g. flooding, inundation, landslides) with at risk properties removed as quickly as practicable.

### Modification Justification

- Ensure that residents can remain in their existing neighbourhood wherever possible.
- There is not a one size fits all solution to renewal.
- Emphasise the importance of ensuring that all dwellings are located in safe areas away from danger (e.g., flooding, inundation, landslides).

## 5.4. Education and Lifelong Learning

Previous policy anticipated that, despite a projected decline in birth rates over the 20-year period, there would be an increase in pre-primary and primary schools to cater for deficiencies



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in certain areas, an increase in secondary schools as secondary education was to become compulsory for all, and an increase in tertiary education.

No. of Schools	Year		
	2003	2011	2019
Pre-Primary	1,061	1,081	817
Primary	278	291	302
Secondary	169	175	172
No. of Students	Year		
	2003	2011	2019
Pre-Primary	38,620	33,901	25,479
Primary	124,933	110,907	81,226
Secondary	100,447	111,753	103,315

Table 4 Total Number of Schools and Enrolments, Island of Mauritius 2003- 2019

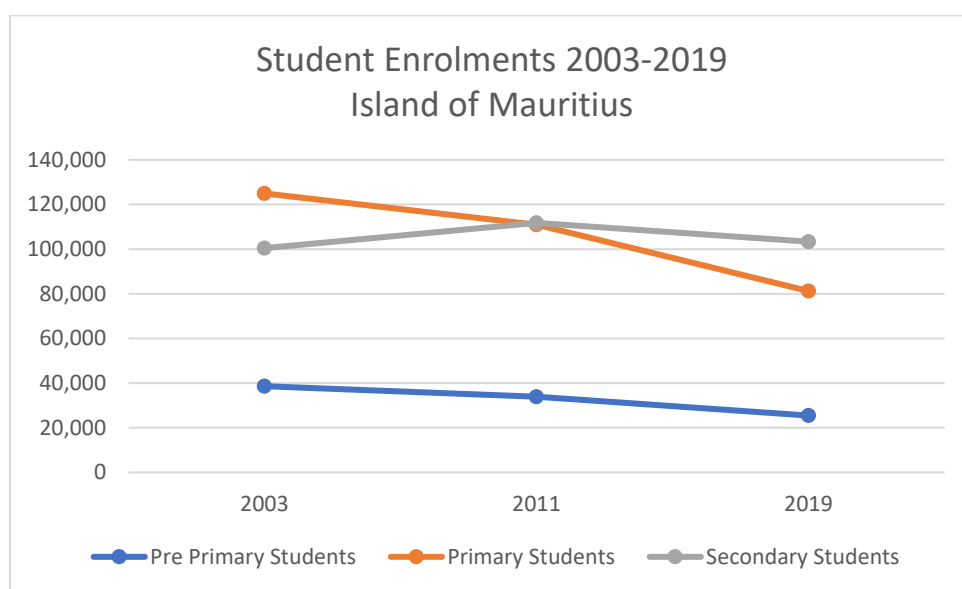


Figure 22 Student Enrolments 2003-2019 Island of Mauritius (Source: Statistics Mauritius)

Although the number of Government primary schools gradually increased since 2003 from 278 to 302 (+8.6%) the fall in the total number of children has led to a decline in primary school enrolments by nearly 44,000 or 35% by 2019. Over the same period the number of secondary schools and school enrolments has remained relatively stable (2003 - 169 secondary schools and 100,500 students, 2019 -172 schools and 103,000 students). In contrast to the situation in 2003 however, there are now more secondary school students than students at primary school (refer to Table 4). More children are also now going onto higher/tertiary levels of education at sixth form colleges and universities.

Government's aim is to secure an inclusive education system fully adapted to the new developmental needs of the economy and society. The Ministry responsible for Education, Tertiary Education, Science and Technology (METEST) is actively constructing or upgrading new schools with significant recent investment under a Rs 15 billion programme for the renovation, upgrading and refurbishment of over 70 primary and secondary schools. In primary schools upgrading will involve additional playgrounds and green and endemic corners to sensitize and stimulate interest in conservation and protection of the environment. Together with the deployment of wireless local area networks in secondary schools this programme will considerably add to the stock of modern schools and facilities across the country. In line with the education reform policy an Institute of Technical Education is to be set up and a National Skills Development Strategy 2020-2024 will be developed to address future skill requirements and policies such as industry 4.0 and after-school learning about national cultural heritage.

Where excess capacity can be anticipated at some larger school sites co-location of activities and shared use of space for sports or leisure facilities to be jointly shared with local communities should be considered, especially where sites are well-located with regard to a range of transport modes including public transport services, bus stands and parking facilities.

In smaller urban or rural town centre locations where school sites, access and parking are constrained, consideration could be given to consolidation of school activities on a nearby larger school site, with the smaller site being re-purposed to provide community facilities, pocket parks and children's play areas, providing the student catchments of the consolidated schools was not adversely affected in terms of travel patterns for the staff and students concerned.

Provision for new schools should be assessed in the context of demand, the updated settlement hierarchy and related range of public services and community facilities to be included relative to long term residential growth in designated expansion zones, new planned communities and approved Smart cities/growth zones such as Moka City, Cote D'Or Smart City and Tamarin, Black River, as well as current areas of deficit identified by the METEST.

### **5.4.1. Pre-Primary Education**

Pre-primary education provides an introduction to full time education for children although often provided in a non-educational setting such as community centres and halls. Due to the shorter hours and age of children it is often beneficial for such services to be delivered close to where parents live, reducing the time and cost of travel.

### **ED1 Pre-Primary Education**

Encourage and facilitate the provision of pre-primary centres by means of the following measures in order of preference:

- the shared use of existing buildings such as community centres, village halls, religious buildings and existing primary schools including re-purposed primary school buildings where future enrolment capacities are likely to exceed demand.
- the use of part of a private residential building or plot provided that the premises are of a suitable size and design to accommodate the maximum number of children enrolled.
- purpose- built centres on separate sites within residential areas.

In all cases of new development proposals should:

- include safe and convenient access via a range of modes including walking and sufficient parking and waiting area space including off-street car parking for staff.
- not detract from residential amenities of the area.

### **Reasoned Justification**

The Government's aim has been to offer the opportunity of pre-primary education to all children in the 3 to 5 year age group. Ideally, such education facilities should be attached to all primary schools but financial constraints mean provision will have to continue to be made in other premises by both public and private sectors. A considerable contribution is made by small private pre-primary centres on residential plots and this will continue to be permitted provided that certain conditions are met were demand can be sustained e.g. in areas of new growth and expansion.

In other areas where school enrolment rates are in decline, opportunities for shared use or adaptive re-use of existing primary school sites and buildings to accommodate pre-primary school needs should be considered, where such sites are well-located having regard to convenient access by a variety of modes, safe pedestrian links and adequate parking space.

By adapting and re-using existing school sites to enable pre-primary education services to be offered more efficiently, community linkages and school travel patterns can be maintained which enhances social cohesion and supports proposed urban and rural regeneration initiatives.

### **Modification Justification**

- Falling enrolments

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- Opportunities for re-purposing future excess capacity in some existing school sites and buildings.
- Support town and village centre regeneration.
- Maintain established community linkages and school travel patterns for social cohesion.

### 5.4.2. Primary Education

Access to good quality education is a key driver in house purchase decisions. Primary schools are considered a key facility in walkable, liveable communities with most students being able to walk comfortable to school. As demographics in different communities change, the demand for education facilities will change. Primary school numbers have already peaked in Mauritius resulting in many areas where demand for school places will be falling. How existing schools are maintained and the impact this has on travel demands and access to school will change.

#### ED2 Primary Schools

Locations for new primary school sites should be focused on sites which can be integrated within the settlement hierarchy and are designed to: i) serve new population growth and expansion areas including approved Smart Cities or ii) rectify existing disparities in school distribution.

In all cases of new development should:

- include sufficient space within the curtilage for sports facilities in compliance with national standards;
- incorporate safe access via a range of modes including walking and sufficient convenient parking and waiting area space including off-street car parking for staff;
- not detract from the residential amenities of the area during operation.

In locations where enrolments are falling and future capacity is likely to exceed demand, opportunities for the shared use of existing school sites, buildings and facilities should be considered, with the vacated sites and buildings being adapted for re-use by other activities, including community facilities.

#### Reasoned Justification

Due to a predicted reduction in school-age children and falling enrolments over the plan period there will be a general decline in demand for new primary school education, other than in areas of new growth and expansion or in areas where there are current shortfalls in provision of buildings or facilities. In these areas, provision for new schools should be assessed in the context of the settlement hierarchy and sustainable demand.

In other cases where school enrolments are in long term decline and excess capacity can be anticipated, consideration should be given to shared use of existing primary and secondary school sites where such sites are well- located with regard to convenient access by a variety of modes, safe footpaths and adequate parking space.

By adapting and re-using existing school sites, demand for new greenfield sites can be contained and more efficient use of public services and investments can be achieved in support of proposed urban and rural regeneration initiatives. The adaptive re-use of existing sites can also help maintain community linkages and school travel patterns which enhances social cohesion.

### Modification Justification

- Falling enrolments.
- Opportunities for re-purposing future excess capacity in some existing school sites and buildings.
- Support town and village centre regeneration.
- Maintain established community linkages and school travel patterns for social cohesion.
- Secure convenient and safe access by a variety of modes.

### 5.4.3. Secondary Education

Secondary schools are more spread out than primary schools, serving a wider catchment area. Access to school by walking and cycling should still remain an objective with older children able to travel further independently than their younger peers. With secondary school numbers having already peaked there will be many areas where demand for school places will be falling. Achieving a good spatial distribution of secondary schools will become increasingly challenging over the plan period.

#### **ED3 Secondary Schools**

Locations for new primary schools should be focused on sites which can be integrated within the settlement hierarchy and are designed to serve:

- i) new population growth and expansion areas including approved Smart Cities;
- ii) areas of existing deficit, as determined by the METEST.

In all cases, proposed sites for new secondary school development should:

- include sufficient space within the school curtilage for a range of sports facilities in compliance with national standards.

- incorporate safe access via a range of modes including convenient footpath and cycle routes and sufficient parking and waiting area space including off-street car parking for staff;
- not detract from the residential amenities of the area during operation.

In locations where enrolments are falling and future capacity is likely to exceed demand, opportunities for the merger of secondary school sites and buildings and the shared use of facilities should be considered, with the vacated sites and buildings being adapted for re-use by other activities, including community facilities.

### Reasoned Justification

Due to a predicted reduction in school-age children and falling enrolments over the plan period there will be a general decline in demand for new secondary school education, other than in areas of new growth and expansion or in areas where there are current shortfalls in provision of buildings or facilities. In these areas, provision for new schools should be assessed in the context of settlement hierarchy, sustainable demand and transport and infrastructure services capacity., co-location of new with existing secondary schools, sports and recreation facilities combined with community facilities should be considered.

In other cases where school enrolments are in long term decline and excess capacity can be anticipated, consideration should be given to co-location of primary and secondary school sites where they are well- located with regard to convenient access by a variety of modes, safe footpaths and adequate parking space especially where school sports and recreation facilities can be shared with local communities.

By adapting and re-using existing school sites, demand for new greenfield sites can be contained and more efficient use of public services and investments can be achieved in support of proposed urban and rural regeneration initiatives. The adaptive re-use of existing sites can also help maintain community linkages and school travel patterns which enhances social cohesion.

### Modification Justification

- Falling enrolments.
- Opportunities for re-purposing future excess capacity in some existing school sites and buildings.
- Maintain established community linkages and school travel patterns for social cohesion.

### 5.4.4. Technical and Vocational Education

As the country moves towards a knowledge – and data- based economy and society, there will be an increased demand for vocational courses, continual and e-learning, including from an aging population over the plan period. Though this demand will be addressed to some extent by the increased use of home-based internet and virtual technology studies, there is likely to remain some demand for physical premises for MICE activities (Meetings, Incentives, Conferences and Exhibitions) as well as regional specialist educational events on fir example climate change and eco-tourism topics. In these cases, sites should be well-accessed by a range of public transport services including metro facilities and that are close to a range of supporting social and community facilities.

Where physical premises are required, demand for adult and seniors’ education and vocational training services can be addressed through adaptive re-use of vacant school buildings where there is excess capacity or where urban and rural regeneration schemes around bus stands and metro stations release existing sites for new uses which can be integrated with convenient and safe public transport access and community facilities.

#### **ED4 Technical and Vocational Education Facilities**

Locations for new technical and vocational colleges should be focused on sites which can be integrated within the settlement hierarchy and are designed to serve:

- new population growth and expansion areas including approved Smart Cities.
- designated urban and rural regeneration zones.
- existing disparities in college distribution.

In all cases of new development safe and convenient access will be required to colleges, libraries and facilities for continual learning via a range of modes including public transport and convenient footpath networks with sufficient parking and waiting area space including off-street car parking for staff.

In locations where school building capacities are likely to exceed future demand, opportunities for adaptive re-use of vacant or underused buildings and facilities which are well- served by a variety of transport modes should be considered to meet technical and vocational education requirements.

### Reasoned Justification

Future demand will increase for tertiary, vocational, continuing and e-learning education facilities and services in well-accessed and serviced locations both in urban and rural areas. Demand will be generated both from existing residents including those of retirement age in regenerated town centres and primary rural centres as well as from newcomers in expansion areas and smart cities.

Access to libraries and facilities for continual learning need to be preserved and provided, though increasingly demand will be addressed through e-learning and internet -based services including study from home – a trend which will have been accelerated by the worldwide Covid pandemic.

By adapting and re-using existing sites, including vacant or underused school sites in town and village centres, demand for new greenfield sites can be contained and more efficient use of public services and investments can be achieved in support of urban and rural regeneration initiatives, especially where new or upgraded transport networks and service capacity have been provided or can be anticipated.

### Modification Justification:

- Move towards a knowledge-based economy and society.
- Increased demand for vocational courses and e-learning, including from an aging population.
- Opportunities for re-using some existing well-accessed school sites and buildings for vocational courses where future excess capacity is predicted.
- Revitalize and incentivize town and village centre regeneration.
- Maintain established community linkages and travel patterns for social cohesion.

#### 5.4.5. Tertiary Education

The Government is committed to a future knowledge -based economy and well-educated society, driven in part by the need for new high tech and ICT skills to address climate change and food security challenges, among others. To meet this demand, new accommodation or expansion of existing sites and campuses over the plan period at Reduit and La Tour Koenig is likely to be required, though this may be partly mitigated by trends in e-learning and home-based studies accelerated by the impacts of the worldwide Covid pandemic.

The University campus, college and laboratory complex at Reduit lacks connectivity to the conurbation metro system and suffers from local access and circulation problems. Expansion



space is constrained by a motorway intersection, high quality agricultural land and an attractive and valued environment. To address future demand on-site, solutions are required that provide high-capacity integrated public transport networks and services as well as safe and convenient footpaths and cycleways between university and college campuses and support facilities and services at Ebene/Cyber City and Rose Hill. In the longer term a strategy of integrated satellite education clusters supported by upgraded physical, social and ICT/virtual infrastructure should be considered to sustain growth in accord with Government policy.

### **ED5 Tertiary Education Facilities**

Locations for new universities and colleges should be focused on sites which are designed to:

- (i) serve new population growth and expansion areas including approved smart cities;
- (ii) serve designated urban and rural regeneration zones or tourism zones;
- (iii) rectify existing disparities in distribution.

In all cases of new development safe and convenient access via a range of modes including public transport, cycling and walking with sufficient parking and waiting area space including off-street car parking for staff will be required.

To provide for the continuing development and expansion of existing facilities in and around the University campus at Reudit, consideration should first be afforded to optimizing utilisation or retro-fitting of existing buildings with resource-efficient and environmentally-sound technologies including innovative transport technologies, before new greenfield sites are considered.

In the longer term, off-site development through satellite educational clusters and branch campuses of international institutions should be considered contingent on the implementation of a modal connectivity system linking Reudit campus with Ebene Cyber City, Moka Smart City and Cote D'Or Smart City.

### **Reasoned Justification**

As the country moves towards a knowledge-based and data-driven economy, there is a need to expand capacity and have a greater diversity of courses especially in the fields of new technologies and innovation. In this changing context, short term policy options for expansion should focus on ensuring resource-efficient and environmentally-sound utilisation of existing sites, land and building resources with a focus on local access, circulation and public realm improvements.

In the longer term, opportunities for further expansion beyond existing sites will be afforded through Government policy commitments to attract and integrate branch campuses of international institutions, potentially as satellite education clusters. Such development proposals should be considered in an area-wide context considering the need for a high level of multi-modal connectivity between locations (including Metro Express extension links in appropriate cases). A Tertiary Education Action Area Plan or Master Plan should be drawn up with the responsible University, College, relevant Government Departments and community stakeholders, to ensure an integrated long term development framework is in place.

### Modification Justification

- Move towards a knowledge-based economy and society, needing new skills to address climate change and food security challenges.
- Opportunities for reskilling/upskilling in post-Covid 19 situation.
- Increased demand for specialist courses and e-learning through introduction of branch campuses of international institutions.
- Maintain established community linkages and travel patterns for social cohesion.

## 5.5. Health and Well-being

The Ministry responsible for Health and Wellness (MHW) operates in five regions, each having a regional hospital supplemented by district hospitals. Previous policy identified the need for consolidation and expansion of hospital facilities in situ rather than building new hospitals on green field sites.

This policy has been maintained over the 2003 NDS plan period through upgrading of existing buildings and facilities at the Jeetoo Hospital (Region 1 - Port Louis, the SSR Hospital (Region 2 - Northern Region) and the Flacq Hospital (Region 3 - Eastern Region). The Victoria Hospital (Vacoas- Region 5) has also benefitted from the addition of a new wing to provide 700 beds as well as renovation and rebuilding of new facilities on site. The Jawaharlal Nehru Hospital near Rose Belle which serves the Southern Region (Region 4) has been provided with improved highway access to connect to the Motorway M1, while the Souillac District Hospital was rebuilt with quarantine facilities as proposed in the PSIP. Two new proposals were also included by the Ministry -a psychiatric hospital at Beau Bassin with 250 beds and a specialist hospital at Reduit for non-communicable diseases. A National Cancer Hospital is also now under construction along the Phoenix-Beau Songes Link Road near Solferino.

Improving health care services and creating a healthy lifestyle based on social, cultural and sports activities is a stated aim of Government. The Ministry of Health and Wellness is implementing a new 5 -year Strategic Plan 2020-2024 to ensure that the national health services can cope with new challenges. Government is allocating Rs 12 billion to the health sector over the next fiscal year to expand, diversify and modernise public health infrastructure with the mission statement “To support universal and affordable access to high quality health care for all” (source: Three-Year Strategic Plan 2019/20-2021/22 Embracing a Brighter Future Together as a Nation, Government of Mauritius, 2019). Specialised care homes for persons suffering from mental illnesses are an important part of the modernization package. A key policy issue is whether the existing system of strategically-located regional hospital complexes and specialist hospitals supported by district and local level health care centres can meet demand from an ageing population (range of specialist health and wellness services) and from a better educated community seeking to attain the benefits of healthier lifestyles and an improved quality of life.

### **HE1 Hospitals and Health Care Provision**

The continuing development and expansion of health facilities on existing sites at general hospitals, Public Health Centres and Medi-clinics should be supported by:

- adequate expansion space for a range of modern facilities and services.
- convenient access by a variety of modes including public transport.
- safe and well- lit footpath and cycling networks.
- sufficient off-street parking for staff and visitors.

Locations for new community health centres should be focused on sites which can be integrated with the settlement hierarchy and are designed to: (i) serve new population growth and expansion areas including approved Smart Cities and planned new communities, ii) serve designated urban and rural regeneration zones or tourism zones or iii) rectify existing disparities in distribution.

### **Reasoned Justification**

The enhancement of existing sites and facilities for general hospitals, Public Health Centres and Medi-clinics should consider the potential for long term growth given the anticipated significant increase in demand especially from an ageing population. Land and sites in highly accessible locations should be prioritized where public transport improvements have been made or are committed such as sites close to metro stations, bus stands/urban/rural terminals, especially where urban and rural regeneration schemes are being planned. In new expansion and growth

zones, including approved Smart Cities, provision of public health centres and medi-clinics can be complemented by private sector -led schemes which integrate health and wellness services with a range of sports, recreation and leisure facilities.

The improved accessibility afforded by these regeneration schemes will become an important locational factor for new or upgraded health services and community facility clusters that improve quality of life and are integrated with public transport, safe, convenient footpaths and quality green space. Upgrading existing sites and facilities can also help in maintaining established community linkages and travel patterns for social cohesion.

In new expansion and growth zones, including approved Smart Cities, provision of public health centres and medi-clinics can be complemented by private sector -led schemes which integrate health and wellness services with a range of sports, recreation and leisure facilities.

### Modification Justification

- Move towards a healthier lifestyle and inclusive society.
- Increased demand for a range of general and specialist health and wellbeing services, including from an aging population.
- Future growth in health and medical tourism and sports medicine.
- Ensure equitable distribution of public healthcare facilities in urban and rural areas.
- Revitalize and incentivize town and village centre regeneration.
- Enhanced provision of community health facilities, green footpath and cycleway networks and usable open spaces.
- Maintain established community linkages and travel patterns for social cohesion.

## 5.6. Community and Cultural Facilities

Sports, physical, leisure and cultural activities are all vital to quality of life. A lack of such facilities hinders the social and cultural life of the community. For sports, previous policy identified a hierarchy with three scales of provision – national, regional and local. At the regional and local levels, the Ministry responsible for Youth, Sports and Recreation implemented a programme of youth centres while local authorities and the National Development Unit (NDU) also implemented some small community facility schemes acknowledging there was a degree of overlap with the Ministry in this regard.

The provision of market fairs, multi-purpose halls and village halls forms an important part of the country's social infrastructure, while investment in sports facilities has occurred at all levels

across the country. The changing age profile and increasing interest in healthier lifestyles will however stimulate further demand for a range of modern community, open space, sports and cultural facilities, including major new expansion schemes, planned new communities and morcellements, though currently because of community asset management issues these have not always been provided in the past.

With the changing socio-economic profile and ageing population, the Ministry's refreshed mission statement seeks "To promote Mauritian arts and cultural values and encourage practice of sports" (source: Three-Year Strategic Plan 2019/20-2021/22 Embracing a Brighter Future Together as a Nation, Government of Mauritius, 2019). In support of this aim for example, a National Cycling Policy Framework is being developed to encourage cycling for leisure and recreation as well as for transport and tourism. Dedicated cycle lanes are to be incorporated into road infrastructure development plans.

Future policy directions laid down by Government include facilitating the implementation of the National Sports Policy including Sports Infrastructure by increasing accessibility, maximising utilisation and implementing a sports infrastructure maintenance policy, among other initiatives. Accessible sports and leisure facilities and usable open green space for all age groups should be included as part of major new residential developments including morcellements.

Accessible leisure facilities and usable open green space for all age groups should be included as part of major new residential developments including morcellements.

### **SC1 Community Facilities**

Locations for new community facilities including sports facilities should be considered in relation to the existing settlement hierarchy, levels of provision and areas of deficiency or where new population growth and expansion areas including Smart Cities are committed or planned.

In all cases of new community and sports facility development, provision should be made for safe and convenient access via a range of modes including public transport, cycling and walking, sufficient parking and waiting area space including off-street car parking for staff and adequate usable public open space for the population catchment.

In cases where provision of new community and sports facilities requires collaboration with the private sector, the provisions of the National Regeneration Programme and the

Investment Promotion Regulations 2018 including developer incentive schemes should be considered.

### Reasoned Justification

Government's drive towards a society which enjoys healthier and happier lifestyles will generate demand for a range of leisure, recreation and sports facilities as well as for modern community facilities, increasingly to serve an ageing population.

Equitable and inclusive provision of sites for new community and sports facilities should be considered in relation to i) the existing settlement hierarchy, ii) current areas of deficiency, iii) new growth and expansion areas including smart cities. In existing towns and villages, conversion or adaptive re-use of vacant or under-used school buildings or sites released through urban and rural regeneration schemes should be considered for much needed community and sports facilities.

For new community facility developments on sites not under public ownership, co-operation from the private sector will be required for which the provisions and incentives included in the Investment Promotion Regulations 2018 should be utilized. In all cases, sites should be well-located and accessible by a range of transport modes and safe, convenient footpaths.

To encourage Mauritians to practice a sport for a healthier lifestyle, accessible sports and community leisure facilities and usable open green space for all age groups should be included as part of major new residential developments including morcellements.

### Modification Justification

- Drive towards healthier lifestyles will generate demand for a range of recreation, sports and well-being services including sports medicine.
- Increased demand for a range of general and specialist community facilities, including from an aging population.
- Ensure equitable distribution of community facilities in urban and rural areas.
- Revitalize and incentivize town and village centre regeneration.
- Opportunities for re-purposing some existing well-accessed sites and buildings for healthcare services
- Enhance provision of community health facilities, green footpath and cycleway networks and usable open spaces.
- Maintain established community linkages and travel patterns for social cohesion.

### **SC2 Regional Sports Facilities**

Locations for new regional sports facilities should be considered in relation to the existing settlement hierarchy, levels of provision and areas of deficiency or where new population growth and expansion areas including Smart Cities are committed or planned.

In all cases of new regional sports facility development provision should be made for a high level of safe and convenient accessibility via a range of modes including public transport, green cycling and walking networks and sufficient parking for both sports participants and visitors especially at peak times and during major events.

In the longer term, as more activities are attracted to the emerging regional multi-purpose sports complex at Cote D'Or, consideration should be given to enhancing strategic public transport connectivity between the conurbation at Rose Hill, Ebene Cyber City, the Reduit Triangle, Moka Smart City and Cote D'Or Smart City.

In cases where provision of new community and sports facilities requires collaboration with the private sector, the provisions of the National Regeneration Programme and the Investment Promotion Regulations 2018 including developer incentive schemes should be considered.

#### **Reasoned Justification**

Government aims to position Mauritius as a reference for the hosting and attracting of international sports and cultural events. To achieve this aim and encourage a thriving sports economy will generate demand for a range of state-of-the-art sports, recreation and health and well-being services including sports medicine and sports tourism facilities.

In areas of strategic growth, such as Cote D'Or Smart City, where new or upgraded transport and utility networks and service capacity have been provided or are planned, co-location and multi-use of regional sports, recreation, leisure and educational facilities should be considered. Such an approach can lead to more effective use of resources and publicly-funded infrastructure, in locations that are well-planned and implemented as part of an area-wide development framework.

Clustering of a range of sports, recreation and community leisure facilities in strategic locations can also form the focus for new urban and rural growth clusters and tourism hubs, especially

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where these are linked to employment-creating activities such as agro-tourism, eco-tourism and education-tourism enterprises.

To achieve Government's aims for an inclusive, high income and green Mauritius, strategic sites for regional sports facilities will need to be well-located with regard to multi-modal transport networks including safe and convenient access by public transport, as well as green and blue infrastructure corridors that incorporate dedicated green cycling and walking networks.

### Modification Justification

- Drive towards healthier lifestyles will generate demand for a range of recreation, sports and well-being services including sports medicine
- Increased demand for a range of general and specialist sports facilities, including from an aging population
- Ensure equitable distribution of sports facilities in urban and rural areas
- Enhance provision of integrated sports facilities, green footpath and cycleway networks and usable open spaces
- Maintain established community linkages and travel patterns for social cohesion



## **6. Economic Prosperity**

### **6.1. Overview**

As the Government's aim of maintaining a high-income economy becomes more mature and advanced the demands on land and type of spaces will change.

Manufacturing remains a key part of the economy and a key part of the land supply strategy for the Economic Development Board (EDB) with a number of business parks, including High-Tech manufacturing and innovation labs proposed. As part of the global economy it is anticipated that much of the manufactured goods will be exported placing increased pressure on the Port and Airport and surrounding infrastructure. The plans for the expansion of both facilities with safeguarded strategic access will need to be considered as will enabling the development of manufacturing premises in locations close to skilled workforce pools while reducing the impact of heavy goods vehicles on residential areas and high profile sites.

As the GDP per capita has risen, so has the rise in consumption power. Continued increases in the number of registered vehicles, out of town commercial complexes, retail and leisure malls and the influx of international brands is evidence of this growth in consumption. The flip side of this is that the amount of goods that need to be imported, food, energy, goods has also risen. Mauritius has become less self-sufficient and more reliant upon the global economy than it ever has. In terms of food production there are a number of programmes and small-scale initiatives that seek to increase food production on the island. The ambitions remain however single digit percentage changes.

The development of Ebene Cyber City has enabled the major expansion of the service industry with supply keeping pace with demand. Further commercial floorspace is expected to be developed there as well as at Cote D'Or Smart City, and at other Smart Cities. There is desire to see new commercial offices spaces around the urban terminals, town centres and primary rural centres/bus stands. Developing such locations is more complex than greenfield sites so higher returns for developers will be required. Consolidation of retail and commercial uses around existing edge of town complexes can be anticipated to attract other related uses including business hotels, leisure and sports facilities, showrooms and factory outlets.

#### **6.1.1. Industry**

Employment in manufacturing activities in 2003 was estimated at 136,200 (27.5% of total employment compared with 267,400 or 54% in services (including, retail and wholesale). Within manufacturing, Enterprise Zone (EPZ) jobs made up around 60%. Jobs in secondary

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activities in general, principally manufacturing and including Small and Medium Sized Enterprises (SME), were predicted to remain relatively constant over the Plan period, (39% in 2000 and 36% in 2020), reflecting shifts from large scale manufacturing to smaller scale value-added activities coupled with growth in SMEs. Data from Statistics Mauritius shows that the prediction was somewhat over-optimistic as manufacturing employment had fallen by 18.2% to 111,400 by 2011 and by a further 12.5% to 97,400 in 2018 (Table 5). In 2018, manufacturing employment made up 17% of total employment compared with 68% in services (including retail and wholesale).

Reflecting these employment trends, only 260,000m<sup>2</sup> of manufacturing floorspace had been approved by local councils between 2008 and 2018, just over half of the 1990-2000 total (515,000m<sup>2</sup>) ( Table 5).

TYPE OF BUILDING	TOTAL FLOOR AREA PERMITTED (M <sup>2</sup> ) 1990 - 2000	TOTAL FLOOR AREA PERMITTED (M <sup>2</sup> ) 2008 - 2018	% CHANGE 1990-2000 TO 2008-2018
MANUFACTURING	515,000	260,000	-49.51%
SERVICES: RETAIL & TRADE (Wholesale/Retail, restaurant & Hotels)	1,745,000	1,388,500	-20.43%
SERVICES: OFFICES (Banking, Insurance & Real Estate)	300,000	544,500	+81.52%
TOTAL MANUFACTURING & SERVICES	2,560,000	2,193,000	-14.33%

Table 5 Building Permits for Non-Residential Building Types 2008-2018 (Source: Statistics Mauritius, Digest of Statistics, 2018)

Manufacturing is still the largest sector in the Mauritian economy contributing 13.9% (Rs54billion) of Gross Added Value in 2016 which is targeted to reach 81 billion by 2030 an increase of 50%. It currently contributes 12% to GVA and accounts for 17% of total employment. In 2018, the sector grew by 0.7%. During the period 2015-2018, the Other Manufacturing sub-sector, which caters mostly for the domestic market, was expanding at an

annual rate of 3.4% on average. On the other hand, the textile sub-sector had contracted on average by 4.1% annually during the same period.

### **6.1.2. Micro, Small and Medium Sized Enterprises (MSMEs)**

Much emphasis is being laid on building innovative, dynamic and resilient MSMEs. In 2017, SMEs contributed 3% of GVA and accounted for 49% of total employment. A 10-Year Master Plan for the SMEs sector was prepared in 2017 and its recommendations are being implemented in view of building a 'Nation d'Entrepreneurs'. Contribution of SME exports to total domestic exports has increased from 7.2% in 2013 to 10.9% in 2017.

A key feature is the drive to adopt new technologies and enter new market segments through product diversification and process re-engineering including precision engineering, technical textiles, medical devices, agro-processing and bio-technology. High growth SMEs and industrial parks, medical hubs, life sciences, wellness and medical tourism, knowledge education and higher education hubs and eco-and heritage tourism are also being promoted through Government strategies.

Côte d'Or Data Technology Park will lay the foundation for a data-driven economy and create the relevant eco-system to accelerate the innovation process from idea to creation. The Park will encompass 12 highly skilled and specialised centres from additive manufacturing to deep artificial intelligence, and provide the necessary support for start-ups, existing businesses and government services to achieve a major digital transformation.

### **6.1.3. Ocean Economy**

Mauritius has an exclusive economic zone of approximately 2.3 million km<sup>2</sup>. An additional expanse of extended continental shelf area of approximately 400,000 km<sup>2</sup> is co-managed with the Republic of Seychelles. Prior to the Covid 19 pandemic, the Blue Bay Marine Park Visitors Centre had been operational since June 2016 to nurture the conservation and protection of marine biodiversity.

As part of its new industrial and trade policies, Government will also focus on developing new economic pillars by aiming to further unlock the potential of the blue economy. To develop the fishing industry, the Mauritius Investment Corporation (MIC) will invest in joint ventures engaged in fishing activities and its value chain and an inland aquaculture scheme will be introduced. In addition, Government will enhance its support towards the development of a sustainable aquaculture and fishing industry through training for semi-industrial and industrial fisheries and skills enhancement of artisanal fishers.

## 6.2. Industrial Sites and Buildings

Traditionally much of the country's heavy and manufacturing industry, warehousing and wholesaling activities were attracted to strategic locations around Port Louis where close access to the port was critical, including to the north along the M2 motorway at Terre Rouge, Roche Bois and Riche Terre, and on the southern outskirts, at Pointe aux Sables/La Tour Koenig near the A1 and at Pailles on the M1. Access for workers to these locations has also been improved by the introduction of the Metro Express services south of Port Louis and in future from a potential extension northward from Immigration towards Riche Terre and Terre Rouge along the M2 corridor.

While access to the port (and airport) for export of goods will remain significant, demand for new industrial sites and buildings will also be driven by the move towards a modern high tech, knowledge -based and value-added economy and the accelerated use of the internet for shopping and home delivery services. Investors and executives often now require sites and premises that are well-located with regard not only to the highway network but also proximity to high standard education and health facilities, attractive mature landscape settings and range of community facilities.

Safeguarding of strategic connectivity and accessibility to secure storage, warehousing and distribution facilities at existing industrial estates, and at the international port and airport complexes should be prioritized in accord with updated Government Master Plans for the two international transport hubs.

### I1 Industrial Sites and Buildings

Proposals for industrial development should follow a sequential approach by considering locations in or on the edge of i) existing industrial complexes and estates and ii) urban and rural regeneration zones, before new sites are identified.

In existing industrial areas including the port and airport complexes and regeneration zones priority should be afforded to proposals that i) enable environmentally-sound upgrading of existing infrastructure and buildings including buildings that have been relocated from unsuitable locations; ii) provide opportunities for provision of serviced advanced units for MSMEs, where on-site space is still available.

In all these cases a high level of accessibility by public transport and highway connectivity will be required.

Where sites and buildings in existing industrial estates or urban and rural regeneration zones are not available or suitable, proposals for new industrial uses including high- tech manufacturing, knowledge-based and data technology business parks and agri-tech, aqua-tech and renewable energy incubators, should take into account:

- the suitability of land or buildings no longer required for sugar, food production or long- term agricultural uses;
- the availability of convenient local housing and social facilities;
- the availability of public transport and facilities for walking and cycling to access the site;
- the provision of sufficient parking and waiting area space including off-street car parking for staff and visitors;
- the availability of usable green open space within the site; and
- the safeguarding and maintenance of the amenity of nearby sensitive uses.

### Reasoned Justification

Under the National Land Development Strategy, a balanced approach to the spatial distribution of workplaces, homes and support services both in existing industrial estates and identified regeneration zones as well as new sites in urban and rural areas will be required to sustain long term and equitable economic growth. Key policy objectives are:

- Upgrading, renovating or re-using sites and buildings in existing industrial estates or urban and rural regeneration zones through use of resource -efficient and environmentally-sound technologies, to contain urban sprawl, reduce impact on the environment and maintain established journey to work travel patterns for social and community cohesion.
- Incentivising i) relocation of industrial land uses away from unsuitable sites and ii) provision of serviced advanced units for SMEs in existing industrial estates where there is spare capacity or in regeneration zones as part of integrated urban and rural redevelopment schemes in accord with the provisions of the Government's Investment Promotion Regulations and the need for integrated supply chain networks.
- Safeguarding and strengthening strategic transport linkages between the conurbation, main urban and industrial centres and the port and airport in accordance with updated master plans for the two international transportation hubs, to support national and international supply chains that underpin long term economic growth.

### Modification Justification

- Changing demand for knowledge economy-based industries and business parks and sites e.g., ICT/Data-tech and agri-tech parks.
- Creation of new industrial sites linked to upgraded highway and public transport infrastructure and communications technology improvements.
- Increase resource-efficient use of existing sites and facilities before considering new sites.
- Revitalise and incentivise regeneration of existing industrial areas.
- Maintain established community linkages and journey to work travel patterns for social cohesion.

### 6.3. Logistics

As part of the global economy, it is anticipated that much of the manufactured goods will continue to be exported, placing increased pressure on facilities, connectivity and accessibility to the International Port and Airport complexes. Existing supply chains and associated facilities will also be impacted by changes in traditional town centre retail patterns, edge of town commercial complexes and shopping malls and increasing use of the internet for home delivery service. Demand for strategically located new sites for storage, warehousing and distribution facilities in and around the edge of the conurbation and primary rural and coastal settlements and tourism hubs can be anticipated.

The Port Master Plan for 2025 sees the Harbour being transformed into a major transport and logistics hub connecting Europe, Africa and Asia with additional shipyard capacity as well fish unloading and processing facilities. Construction of a breakwater and island terminal to improve transshipment capacity is also envisaged. To complement this approach the 2040 NLDS incorporates updated policies for Port Louis CBD and Caudan waterfront regeneration including completion of the Inner Ring Road around the capital's CBD to improve HGV access to the Port and integration of the A1-M1 link near Bell Village and Portobello which will also improve access from La Tour Koenig and Pailles industrial zones.

Similar intentions are proposed for the SSR International Airport to become a regional logistics and aviation hub with a doubling in passenger terminal capacity and development of an Airport (Mon Tresor) Smart City and a cargo village. Growth of airport-related industries, including distribution, secure storage and warehousing for specialised products and high value, low bulk commodities can be expected in line with international trends for air cargo.

## **12 Storage, Warehousing and Distribution Facilities (*replaces 18, 19*)**

Proposals for storage, warehousing and distribution uses should consider opportunities for adapting and re-using existing vacant or underused sites and buildings in existing industrial areas, including the port and airport, before new sites are identified.

In supporting industrial growth, incentives should be provided to facilitate the relocation of warehouses and wholesale establishments out of unsuitable congested urban locations to more suitable sites and premises in established well-connected industrial estates, including the port and airport complexes.

Where existing sites and buildings are not suitable or cannot be adapted for re-use, new sites for storage, warehousing and distribution uses should be located in strategically- connected and serviced locations taking into account (i) the distribution of existing industrial areas and regeneration zones; (ii) proximity to existing settlements, smart cities and new growth and expansion zones.

In all cases of new development, the following will be required:

- Convenient and safe access via a range of modes including public transport, well-lit footpaths and cycleways and sufficient parking and waiting area space including off-street car parking for staff and visitors.
- Safeguarding and maintenance of the amenity of nearby sensitive land uses.
- Incorporation of resource-efficient and environmentally-sound technologies into new building designs.

### **6.3.1. Storage of Hazardous Substances**

The Government proposes to expand international port and airport activities including for cargoes as well as drive the new economic agenda for high tech knowledge-based enterprises including bio-tech and pharmaceutical products. A development strategy that aims for cleaner and greener outcomes is also put forward for the country and a centralised medical and clinical waste incineration project is planned to ensure better management of toxic and hazardous products. In this context, availability of existing and new sites for the safe and secure storage of hazardous substances which incorporate environmentally-sound practices and standards will continue to be a concern for responsible agencies.

#### **I4 Storage of Hazardous Substances (I10)**

To support the safe and secure storage of hazardous substances at existing industrial locations, including the port and airport hubs, consideration should be given to retro-fitting sites and buildings with modern environmentally-sound technologies to reduce safety risks, before identifying new sites.

Where safe and secure capacity still exists in existing industrial locations, including the port and airport hubs, consideration should be given to incentivizing the relocation of storage facilities for hazardous substances where these are currently in unsuitable sites.

New sites for storing hazardous substances should be well-located with regard to the strategic highway network, existing industrial estates, the port and the airport, and have regard to the proximity of residential and other sensitive land uses.

Safeguarding of strategic access and connectivity to secure storage, warehousing and distribution facilities for hazardous substances should be prioritised.

In all cases of new development, the following will be required:

- Safe access via a range of modes including walking and sufficient convenient parking and waiting area space including off-street car parking for staff, visitors and workers.
- The amenity of nearby sensitive land uses should be maintained and safeguarded.

#### **Reasoned Justification**

Increases in demand for secure storage for hazardous substances can be anticipated because of recent Government Master Plan proposals for the expansion of the international port and airport cargo activities over the period up to 2025 and beyond. Demand will also be stimulated by Government policy thrust towards enhancing the production of agri-tech, pharma-tech and other specialized process engineering products for the regional and international market.

By adapting and re-using existing sites and buildings for secure storage and warehousing for hazardous substances where there are already established supply chains and community safety and security mitigation measures in place, requirements for new sites in greenfield locations can be reduced.



To enable smooth and efficient distribution of hazardous goods between the conurbation's industrial areas, new storage and warehousing hubs and the international port and airport complexes, priority routes for heavy goods vehicles should be identified and monitored as part of the country's national disaster risk reduction management programme.

### Modification Justification

- Changes in demand stimulated by Government policy thrust towards high tech knowledge-based and food-security initiatives.
- Impact of internet shopping and delivery services combined with shortfall in conveniently-located peri-urban storage and distribution facilities.
- Increase resource-efficient use of existing sites and facilities before considering new greenfield sites.
- Consider opportunities for shared or dual use (e.g., warehousing conversions to MSMEs).
- Maintain established journey to work linkages and travel patterns for social cohesion.
- Secure strategic highway access for heavy goods vehicles and identify priority routes for hazardous cargo transport.

## 6.4. Micro, Small and Medium Sized Enterprises and Regeneration

To foster the emergence of innovative, sustainable and globally competitive enterprises, Government aims to create more technology accelerators and incubators targeting the Micro, Small and Medium Enterprise sector (MSME). This will require a balance of existing and new sites and premises that are well-serviced with modern telecommunication systems and well-accessed to a range of transport systems including public transport and supply chain linkages between existing centres, industrial areas and emerging regeneration zones. Opportunities created by the Metro Express system for improved commuter and worker access to MSME sites in the transportation corridors south of Port Louis and in future through a potential metro extension northward from Immigration towards Riche Terre and Terre Rouge along the M2 corridor should be optimised.

Consideration should also be given to adapt and refurbish existing buildings in both urban and rural settings including agricultural legacy buildings in mature landscape settings for use as meeting spaces, shared offices or conference and training centres.

### **15 MSMEs and Regeneration (*New Policy*)**

Proposals for new MSMEs should consider opportunities for shared use or repurposing of existing buildings and facilities in existing industrial areas, urban and rural centres or emerging regeneration zones before new greenfield sites are identified. Priority should be afforded to MSME locations where a high level of connectivity and accessibility is available or will be provided at or near Metro stations, urban/rural terminals and traffic centres.

In rural and coastal locations accessible and serviced but abandoned or underused agricultural sector legacy sites and buildings should be considered for adaptive re-use for MSME activities including agri-tech and aqua-tech as well as eco-tourism and agri-tourism.

Where existing sites and buildings are not suitable, proposals for new MSMEs including incubator units and other small and medium sized innovative knowledge-based and data-tech activities should be integrated with mixed use development schemes considering: (i) the proposed activity-based settlement hierarchy; ii) new population growth and expansion areas including approved Smart Cities; (iii) existing disparities in facility distribution.

In all cases of new development, the following will be required:

- safe access via a range of modes including walking and cycling and adequate, convenient parking and waiting area space including off-street car parking for staff and visitors.
- the amenity of nearby sensitive uses should be maintained and safeguarded.

#### **Reasoned Justification**

Government's drive towards new knowledge-based, data-tech and fin-tech services combined with the increase in the use of the internet for work, shopping, education and e-delivery services will impact requirements for future MSME sites and premises as more people work, shop and study from home. Where homeworking is not a suitable option there will be an increase in demand for affordable sites and premises including for start-ups and incubator units that have a high level of connectivity to ICT systems and accessibility to transport services as well as a range of local shops and support services.

Through Government programmes for public transport and town and primary rural centre terminal improvements and urban and rural regeneration promotion schemes, opportunities for adapting and re-purposing existing sites and buildings by introducing high-tech

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communication systems and services close to existing population, education and community facility clusters can be achieved to create a more sustainable live-work-play-study environment, while reducing the need for long journeys to work and maintaining social cohesion.

Incentivizing the shared or dual use of existing but underused sites or vacant buildings in existing industrial sites and estates where for example warehousing conversions can create more flexible spaces for MSMEs such as call centres as well as help maintain and optimize supply chain networks.

The release of abandoned agricultural land and buildings in peri-urban and rural areas for the adaptive re-use for modern, well-designed MSME buildings set in mature landscapes can provide for agri-tech, fin-tech and eco-tourism uses in accord with Government aims for a high income, green and inclusive society which can sustain local communities and contribute to healthier lifestyles.

### Modification Justification

- Economic downturn restricting public spending.
- Opportunities for re-purposing some existing sites and buildings in relation to public transport improvements.
- Opportunities for Area Regeneration and PPP in town and village centres.

## 6.5. Offices and Regeneration

While market demand for prime office space in Port Louis continues to reflect its status as the nation's capital city and centre of Government administrations, specialized services and private sector head offices, lack of or difficulty in acquiring suitable central area sites, traffic congestion and parking constraints and a deteriorating pedestrian ambience have motivated several public and private sector agencies to relocate to Ebene Cyber City as their office destination of choice.

Data from Statistics Mauritius shows that service sector employment in general has shown a significant increase over the period 2003 -2018 (+ 46.7% or 125,000 new jobs) while jobs in the category of other services including offices increased from 171,000 in 2003 to 254,600 in 2018, an increase of 83,600 or 49%. In terms of development activities, between 1990 and 2000, 300,000 m<sup>2</sup> of office floorspace had been approved by local councils. By comparison, between 2008 and 2018, some 544,500m<sup>2</sup> of office floorspace, showing an increase of 81.5% (refer to Table 5).

Upgrading the Caudan waterfront and implementing the Les Salines harbourfront project, the completion of the Metro Express and related Victoria and Immigration urban terminals and the use of the Port Louis Inner Ring Road to redirect heavy goods traffic to the port, would all help regenerate and uplift the CBD office ambience and amenity. Managing the flow of commuter traffic can also be achieved using restrictions on parking standards for office buildings, and higher public parking tariffs now that the Metro system is operational and acceptable feeder bus services are being put in place.

Development opportunities outside the national capital must also be encouraged to address Government aims for an inclusive and equitable society while new forms of demand will have to be met. Modern mixed-use environments are already being promoted through the Smart City programme (Beau Plan, Cote D'Or and Moka Smart City are examples) and these will create a demand for different types of office sites and buildings. At the same time there is potential for opening up niche markets as Mauritius strives to secure a position in the regional and international ICT, health/bio-tech, sports and education arenas.

ICT is a key sector of the Mauritian economy. In 2018, it contributed some Rs 25 billion, equivalent to 5.7% of the total Gross Value Added (GVA). The ICT sector grew by 5.3% in 2018 and is expected to expand further by 4.8% in 2019. There were some 800 ICT-Knowledge Process Outsourcing enterprises with a workforce of around 25,000 people in 2018. The sector has the potential to grow further with the development of Artificial Intelligence and Blockchain. By 2030, the ICT sector is expected to contribute substantially to the economic growth of Mauritius and employ around 50,000 people.

The Financial and Insurance Activities sector accounted for 11.1% of GVA and grew at 5.4% in 2018. Almost 25% of FDI inflows in 2018 were directed towards the financial services sector. In 2018, Global Business, a fundamental sub-sector of the financial services sector, contributed to 5.7% of GVA and grew by 4.0%.

### **O1 Offices and Regeneration**

Encourage the development of office space in urban and rural centres as one of the components of a sustainable and equitable regeneration strategy. New office developments should in the first instance consider locations where a high level of accessibility by a variety of modes including public transport is available to serve i) existing centres; ii) new population growth and expansion areas including smart cities; iii) urban and rural regeneration zones or iv) rectify disparities in existing distribution of office sites.

Opportunities for re-use/conversion of vacant or underused sites and buildings for new offices should be considered as important components of mixed use urban and rural regeneration schemes especially where these are being promoted in connection with improvements to public transport in support of the Government's National Regeneration Programme.

In all cases of new office development:

- Sufficient space within the development curtilage should be provided for a range of usable open space in compliance with national standards and Government aims for a healthier society;
- Safe and convenient access via a range of modes including walking and sufficient parking and waiting area space including off-street car parking for staff and visitors will be required.

### Reasoned Justification

To achieve Government aims for equitable growth and inclusive development, new sites for major new office developments in detached/isolated business parks in out-of-town locations should be discouraged. It is more desirable to create office environments that are active components of well-established towns and villages, self-contained new growth centres or mixed use urban and rural regeneration developments to reduce the need for new greenfield sites and enable more efficient use of public infrastructure and services including new public transport facilities.

Essential to the success of such operations, however, is achieving a balanced combination of office, residential and retail elements, in a mature mixed-use environment. Supporting these office environments there will be a need for housing, social and community services (schools, public health centres and sports facilities). A more integrated approach to office and retail development will also help maintain established community linkages and travel patterns for social cohesion. It is likely that clusters will tend to develop at strategic transport nodes including regenerated town and village centres and long-term planning should anticipate this trend.

In responding to Government policy thrust towards high tech knowledge-based initiatives there will be a demand for a new type of office environment. Call centres are typically flexible shed-like structures filled with highly sophisticated electronic, fibre optics, and infra-red equipment. Their built form requirement resembles warehousing more than traditional office space, but

the requirement is also for the landscaped environment of a business park, which can be provided as an integral part of rural regeneration schemes.

### Modification Justification

- Changes in demand stimulated by Government policy thrust towards high tech knowledge-based and food-security initiatives.
- Increase resource-efficient use of existing sites and facilities before considering new sites.
- Consider opportunities for shared or dual use (e.g., warehousing conversions to MSMEs)
- Maintain established community linkages and travel patterns for social cohesion.
- Secure strategic highway access for heavy goods vehicles

## 6.6. Retail

Previous planning policy recognized the traditional main “High Street” as a vital component of settlement life, with new developments being permitted to add variety as new stores and products were introduced in response to market demand. At that time, the principle of creating attractive local shopping centres serviced by public transport and other support infrastructure was to be encouraged with promotion of buildings to front streets so that the vitality of the High Street was enhanced. However, the combination of increasing town centre traffic congestion, lack of convenient public parking and safe footpaths has led to a deteriorating shopping ambience while the development of free-standing convenience food stores and retail parks on the edge of town has flourished. The advent of internet shopping and delivery services also has the potential to disrupt traditional shopping patterns and town centre high street offerings.

Data from Statistics Mauritius shows that there were 96,400 jobs in the retail/wholesale sub-sector in 2003. By 2018 this number had increased by over 41% to nearly 138,000. In terms of development activities, between 1990 and 2000 1,745,000m<sup>2</sup> of floorspace for trade (including retail, warehousing, hotels and restaurants) had been approved by local councils. By comparison, between 2008 and 2018, some 1,388,500m<sup>2</sup> of floorspace for retail and trade had been permitted, showing a decline of 20.4%, likely reflecting consolidation and intensification of activities at existing sites as suitable new urban site become more difficult to acquire and assemble (refer to TABLE 3).

Significant new retail developments, although expanding the range of consumer choice (mainly for those with access to personal transport), can also adversely affect traditional town centre

shopping and related activities and which over time as experienced elsewhere, can lead to town centre decay and loss of investment. Since 2003 the trend towards peri-urban and out of town locations has seen further additions to the retailing stock including for example at La Croisette and Riche Terre on the M2 in the north, Bagatelle and Solverino on the M1 in Moka and near Mahebourg in the east and south east respectively, as well as intensification and consolidation at existing commercial complexes at La City/Trianon on the M1 near Quatre Bornes, Jumbo on the M1 at Phoenix and Super U at Centre de Flacq on the A7, among others.

The extension of peri-urban commercial complexes incorporating new or upgraded shopping malls, increases in disposable incomes and car ownership and more recently changes in shopping habits due to the increasing use of internet and delivery services will all contribute to accelerate this trend, while local shops struggle or disappear, especially in depopulating rural areas.

In this context, the Government's significant intervention in implementing the Metro Express, urban and rural terminals, upgraded bus stations and taxi stands and increased bus feeder services can be seen as positive steps in underpinning the future vitality and viability of existing town and district centres. The redevelopment of major bus station sites centrally located in town centres into urban and rural terminals by the Ministry of Local Government and Disaster Risk Management (MLGDRM) will create opportunities for modern market fairs, commercial spaces and food courts as well as leisure and entertainment facilities.

To ensure inclusive and sustainable development outside the conurbation counter measures will be required that reinforce rural regeneration initiatives including small and medium sized retail developments serving local communities' needs. New or increased demand for convenience and niche market shopping from bus and metro users and commuters as new integrated terminals are planned and developed can be anticipated. Conversions of vacant retail stock for MSME incubators, that create local jobs or for much -needed social housing for an aging population should also be considered.

### **SH1 Retail Hierarchy Facilities (*SH1, SH2, SH3*)**

Establish a balanced hierarchy of retail facilities at national/metropolitan level, urban town centre level and rural district and village centre level taking into account: (i) the existing settlement pattern; (ii) urban and rural regeneration zones; (iii) new population growth and expansion areas including smart cities; and (iv) existing disparities in distribution. Loss of

shopping floorspace at street level in existing town and village centres should be discouraged.

The continuing change and evolution of retailing facilities and shopping patterns in town and village centres, regeneration zones and areas of growth and expansion can be anticipated over the plan period. Safe and convenient access via a range of modes including public transport, cycling and walking and the provision and maintenance of upgraded local community facilities including usable open space, safe seating and public toilets, street lighting and cleaning services should be incentivized as integral components of urban and rural regeneration schemes.

Planning authorities should adopt a flexible approach to permit applications for change of use or adaptive re-use of sites and buildings in existing town and village centres, urban and rural regeneration zones and urban and rural terminal redevelopments. A mix of uses should be encouraged as part of area- wide development schemes being promoted through the Government's National Regeneration Programme to sustain local jobs and communities.

### Reasoned Justification

Falling residential populations, increasing traffic congestion and poor ambience for shopping combined with significant increases in out-of-town commercial complexes with parking space and future growth in internet shopping and delivery services are continuing to adversely impact traditional town and village centre retailing activity, with many premises lying vacant or underused.

Recognizing these negative trends on community life the Government has embarked on a significant transport infrastructure investment strategy with the introduction of the Metro Express and integrated Urban Terminals as well as enhanced bus and taxi facilities and market fayres to help revitalise town and village centre retail ambience. The Government envisages the (urban) terminals being developed, operated and maintained by the private sector with the expectation that the strategic location of existing bus stations will encourage promoters to implement mixed-use developments on these sites.

Future retail (and office) development should therefore be directed towards existing locations which have a high level of transport accessibility including existing town centres and urban terminals, urban and rural regeneration zones and new growth and expansion schemes including Smart Cities, in accord with Policy SP9. Retailing and other complementary developments including a wide range of MSME employment, leisure and entertainment



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facilities should be clustered to encourage competition – this produces benefits to consumers, reduces the use of the car as a means of transport and relatedly demand for new green field sites.

Making optimum use of existing town and village centre sites and buildings including repurposing vacant or underused retail sites for alternative local employment- generating uses including MSMEs or social housing units before considering new greenfield sites will also help reduce urban sprawl. A more integrated and flexible approach to mixed use office and retail development will also help maintain established community linkages and travel patterns for social cohesion.

Further guidance is provided in the Policy and Planning Guidance Note on Commercial Developments.

### Modification Justification

- Falling residential population, traffic congestion and poor ambience for shopping.
- Significant increases in out-of-town commercial complexes with parking space.
- Future growth in internet shopping and delivery services.
- Increased demand for a range of general and specialist retailing services, including from an aging population.
- Ensure equitable distribution of range of retailing facilities in urban and rural areas.
- Introduction of Metro Express and related mixed use Urban Terminals.
- Reduce urban sprawl/demand for new greenfield sites.
- Make optimum use of existing sites and buildings including shared or dual use before considering new sites.
- Revitalize and incentivize town and village centre regeneration, attraction and 24/7 ambience.
- Enhance provision of community facilities, safe footpath and cycleway networks and usable public open spaces.
- Maintain established community linkages and travel patterns for social cohesion.

## 6.7. Tourism Diversification and Growth

Refocusing future tourism development opportunities inland and preserving coastal natural features not only will help mitigate the impacts of climate change, this will drive a new future for the tourism industry. Encouraging tourism activities inland can help reduce pressure on the

coastal zone, with notably the development of eco-lodges and Agri solar farms by small planters on abandoned sugar field land and the development of more nature-based leisure activities.

However even with major initiatives for the development and promotion of alternative/inland tourism, beaches and the coastline are bound to remain the highlight of tourism. Important portions of the coast will be needed as a supportive resource to the tourism industry but the proportion allocated to resorts is excessive as it restricts to a large extent, public access to the beaches and coast as well as other types of operations/activities that could participate and contribute to the tourism industry.

Having on the one hand tourists isolated in resorts and on the other a country and population shaped to the needs of tourists is an ailing model. Instead, a merged model is evolving based on enabling a greater diversity of tourism within the country.

To address these issues the MTPA and the Tourism Authority are considering the green recovery of the tourism industry within a framework which should include:

- Authenticity –tourists will seek to go deep into the country/destination.
- Cultural encounters, discovery – which implies mingling with the local population.
- Ethical – seeking to contribute to the destination’s economy. Travellers will be making purpose- orientated decisions, often to serve one or more causes.
- Well-being – in an inspiring natural environment.
- Green – looking for facts about protection and sustainable initiatives.
- Experimental and transformational experiences – implying investigations into the heart of the country.

While tourism needs a variety of amusements, restaurants, cafes, and nightlife entertainment venues, these should be focused on existing major (Primary) Tourism Centres of Grand-Baie and Flic-en-Flac as the two growth poles for this type of commercial tourism with other smaller coastal towns and villages more oriented towards authentic eco-tourism and nature-orientated activities to sustain coastal communities and conserve natural environments.

### **TM1 Diversification of Tourism Offer**

Tourism developments that sensitively utilise and promote the landscape and cultural heritage of Mauritius will be encouraged. The reuse of heritage sites, historic buildings and museums that contribute to the cultural offer will be strongly supported as will facilities that promote active tourism. Accommodation that is integrated with the tourist offer will be encouraged providing the design does not detract from the heritage and cultural value of the

site. Business hotels should be located in Metropolitan and Urban Centres, and in Urban Terminal locations.

### Reasoned Justification

Landscape and cultural value of Mauritius needs to be protected and promoted carefully if Mauritius is to diversify and enhance its tourist offer to meet the changing demands of tourists. Landscapes and buildings that contribute to the cultural capital of Mauritius should play a larger part in the tourist offer, lessening pressure on the coastal sites and helping to distinguish Mauritius from its long-haul competitors.

Developing accommodations as well as purpose-orientated eco-tourism and leisure activities and attractions in unique and inspiring inland/countryside settings is a key orientation. In the past 2 to 3 years, several multi-purpose projects have been launched inland combining leisure, tourism, micro-farming and ecology or wellness-orientated activities. These should be encouraged and receive incentives for their contribution to the destination's product mix.

### **TM2 Tourism Development and Scenic Coasts**

Tourism -related developments on scenic coasts should be located in Tourism Zones, limited to Tourism Centres, existing settlements, resorts and major Campement sites. Settlement boundaries identified in updated Outline Planning Schemes should be changed only in exceptional circumstances to ensure the continuity of coastal community-life and social cohesion.

### Reasoned Justification

Tourism in Mauritius is largely concentrated around the coastline which is finite. Much of the readily accessible coastline has been developed with land -extensive resorts and international high-end hotels spread along pristine beaches. The settlements in these areas have developed a network of support services that enable the tourism offer to be of a high standard. The settlements themselves are part of the tourism offer and it is therefore important that the character and setting of these settlements is preserved and enhanced.

In order to protect pristine coastline whilst also encouraging the enhancement of the existing tourism offer on the coast, development will be limited to existing settlements, resorts and major Campement sites. This will ensure that important environmental sites and pristine coastline are protected, existing infrastructure networks and services are more effectively

utilised and the existing coastal tourist offer is refocused and upgraded through redevelopment of older or lower quality resorts, rather than new greenfield developments.

### Modification Justification

- There is significant capacity in permitted Integrated Resort Schemes that remains to be developed.
- The outward sprawl of Tourism Zone Settlements is restricted to help preserve the undeveloped coastline in areas of high real estate development demand.

### **TM3 Integrated Resort Scheme Development**

Developments permitted under the Integrated Resort Scheme (or their successors) should be integrated into the nearest community as far as practicable. This includes providing space for local enterprise (e.g., retail and personal services) to be provided.

### Reasoned Justification

The vision for the Integrated Resort Schemes was that they would complement and support local tourism whilst ensuring that the natural environment is protected. They are typically located on the edge of existing settlements and are often gated communities. This lack of social integration is to the detriment of the local economy in which they are located. Going forward it is important that the schemes are both physically and socially integrated with their host communities. A key part of this is providing opportunities for local enterprises to locate themselves in the development, serving both the development and wider community. This will lead to an enhancement in the quality of retail and services in those communities.

### Modification Justification

- There is significant capacity in permitted Integrated Resort Schemes that remains to be developed.

### **TM4 Campement Sites**

Within designated Tourism Zones, Campement sites should be considered for redevelopment for low density tourism uses when leases are renewed, providing they meet the set-back and design requirements of PPG1. When redevelopment opportunities arise the potential environmental role of Campement sites should be considered, particularly in relation to maintaining and repairing natural systems and providing strategic connection to and along

the coast. Redevelopment of Campement sites outside of designated Tourism Zones will be restricted to meeting local residential needs.

Where development falls within the buffer of an ESA, the application should be accompanied by an environmental management plan outlining the responsibilities for the protection of the ESA. Developments will be subject to the provisions of the Environment Protection Act 2002, including the preparation of a Preliminary Environment Report and an Environmental Impact Assessment where required.

### Reasoned Justification

Campement sites are a national asset, enabling some control over large swaths of the coastline as leases are renewed. Campement Sites have increased in popularity and therefore the underlying of properties has increased as the desire for coastal properties increased. The type of coastal development, the management of the coastal environment and access to the coast is governed by the Pas Geometrique Act. The environment, social and tourism economy role of Campement sites should form part of considerations around the future use of sites. Coastal environments are some of the most fragile environments and the most at direct risk from climate change. With sea level rises Campement Sites are at risk and it is therefore critical that the PPG on Coastal developments is adhered to with the high-water mark likely to change over time. There is a need for better management and control of Campement Sites within Tourism Coasts. The environmental footprint of tourism facilities on Campement Sites should reduce over time with a focus on better environmental conditions, repairing coastal habitats and natural systems where these have been damaged in the past.

### Modification Justification

- There is a need for better management and control of Campement Sites within Scenic Coasts
- The environment, social and community linkages and the tourism economy role of Campement sites should all form part of considerations around the future use of sites.

## 6.8. Design in Tourism Zones

The importance of design in Tourism areas has long been a feature of planning policy in Mauritius. This has been reinforced by the development of Design Guidance and Design Sheets for the different types of coastal development, including hotel and resorts and residential. Detailed guidelines have been established for parameters such as setbacks, plot coverage,

building heights. In addition, general guidelines around natural systems, dealing with topography are provided. It is important that all development in tourism areas complies with planning and design guidance to ensure consistency in quality of design and protection of key natural assets, including the coastline itself. The protection and management of ESAs, many of which are found in the coastal areas where tourism is concentrated, will have a direct influence on tourism activities and tourism development and therefore need to be taken into consideration during the design process.

### **TM5 Design in Tourism Zones**

The design, scale and form of development should maintain the character of the tourism zones to preserve their intrinsic character. The repair, reuse and adaptation of buildings with historic value is encouraged. The choice of materials and landscaping of the site should reflect the local character. New development should meet the requirements of the design policies and Design Sheet guidance set out in PPG1.

Policy TM5 should be seen as an integral component of SP14 Design Quality and Sustainable Development, but with specific reference to Coastal Developments where environmental and landscape sensitivity are of paramount concern.

### **Reasoned Justification**

The different Tourism Zones offer a slightly different character due to differences in the coastline, landscape setting and character of the coastal settlements. It is important that the features that make them so renowned internationally are preserved and protected from inappropriate development. To ensure that the character of the settlements in Tourism Zones is preserved and enhanced through redevelopment and design responsive new development. Tourism heritage assets should be protected in line with policies SP14 Design Quality and Sustainable Development and BE1 Character and Sense of Place.

### **Modification Justification**

- To ensure that the character of the settlements in Tourism Zones is preserved and enhanced through redevelopment and design responsive new development.
- Ideally, there should be by a quality heritage tourism label, with the Tourism Authority providing adequate training and support, local people could set up small scale hospitality enterprises that will meet the standards of the label.

## 6.9. Coastal Access

### 6.9.1. Coastal Access

Preservation of (the beauty of) coastal landscapes and the improvement of public access to them should be supported. This can be achieved via the creation of a network of green and blue scenic route corridors, by increasing the amount/surface of publicly available “natural landscape” state-owned lands under lease (mainly for game/deer-hunting), as well as by encouraging landowners in making them accessible on a controlled, commercial and/or purpose- orientated basis. Owners could also receive incentives from the state for rehabilitation/restoration works of ESAs or for “wilding” their plots to improve biodiversity and mitigate climate change effects.

#### **TM6 Coastal Access**

The creation of a green and blue infrastructure corridor around the coast remains a key policy objective. The corridor would comprise an integrated network of green roads and bridges, footpaths and cycleway ROWs and where publicly accessible, sugar cane tracts, inter-laced with sports/jogging routes, nature trails, hiking and woodland forest walks. The coastal corridor should be located above the high-water mark and the Coastal Frontage Area (as defined in updated PPG1). Where provision is not possible for safety or landownership reasons, the corridor should be re-aligned on the most convenient alternative route, keeping the diversion to a minimum.

Redevelopment of sites in the Pas Geometriques and Campement land should prioritise the creation, retention, and enhancement of the coastal corridor. On land identified as Public Beaches, only development that provides sensitively- designed visitor facilities, local access and conservation and enhancement of coastal biodiversity and landscapes that adds to the amenity and public use of the beach should be permitted.

#### **Reasoned Justification**

It is a critical component of the national strategy and essential for the health and wellness of the population that all Mauritians have easy access to (preserved) natural environments. Like inland landscapes, the coasts, beaches and lagoons should be conserved and protected from loss of identity and be more accessible to local communities as well as tourists.

Reference to PPG1 Design Sheet on Residential Coastal Development Key policy objective is to secure/maintain public access to public beaches of no more than 500m - 1km intervals.

### Modification Justification

- Policy has been updated to promoted better implementation of the concept.
- Utilise Pas Geometrique and Campement Sites to help achieve coastal access.
- Reference to PPG1 Design Sheet on Residential Coastal Development 'Key policy objective is to secure/maintain public access to public beaches of no more than 500m - 1km intervals.

## 6.10. Agriculture and Food Security

Historically the mainstay of the agricultural sector and the national economy at large, the future prospects for the sugar industry are generally not advantageous for reasons including decreasing revenue, increasing production costs, scarcity of labour, fierce international competition and financial constraints to growth. Given market pressures and changes in production quota regimes that have occurred over the past two decades, a significant amount of land under sugar has come under pressure for release to other uses. The way forward includes revisiting and reengineering the existing service- providing institutions in the sugar industry to respond to the new needs of stakeholders.

Land use is dominated by agriculture and in particular sugar-cane cultivation. This does however mask the long-term trend of sugar cane cultivation reduction across the island (Figure 23) . In 2003, land under agricultural cultivation was estimated to be approximately 80,000 hectares, of which sugar accounted for 74,000ha (92.5%). By 2018 total land under agriculture had reduced by 25% to an estimated 60,000ha, while sugar cane land had decreased further to 51,454 ha (86.1%), reducing both in real and relative terms (Table 6).



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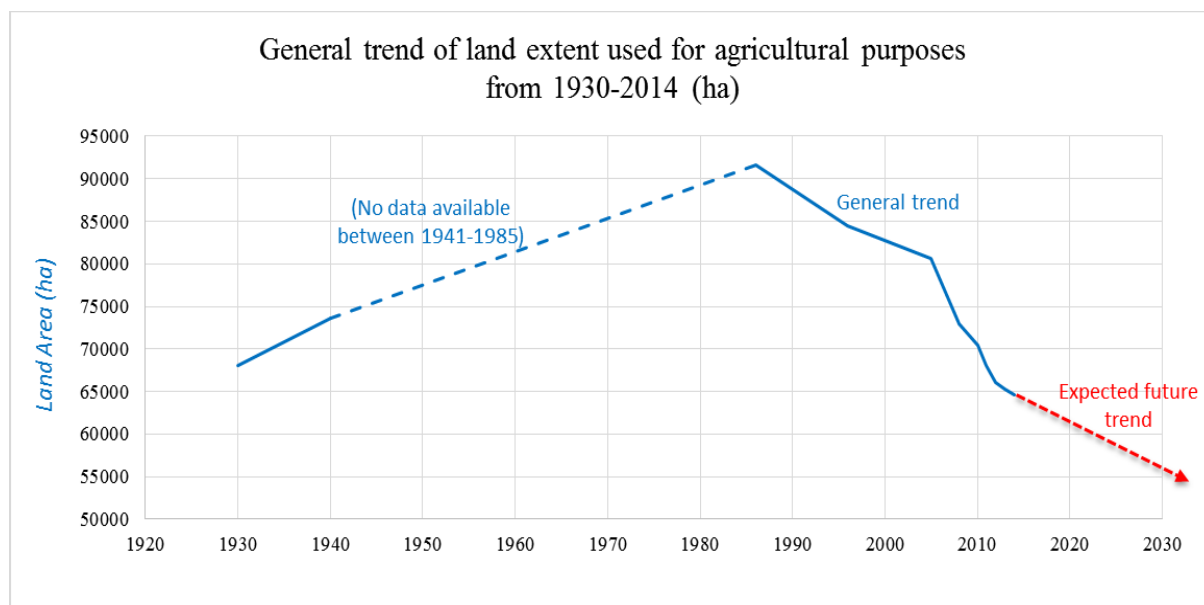


Figure 23 General Trend of Agricultural Land Use 1930-2014 (Source: Statistics Mauritius, 2014 Census of Agricultural Land Use 1930-2014)

LAND USAGE	2018 AREA (HA.)	2011 AREA (HA.)	2003 AREA (HA.)
Sugar Cane	51,454	59,724	74,117
Food Crops	7,646 (1)	8,200	4,980
Tea	656	651	681
Total Agriculture	59,756	62,872	80,157(2)
Agricultural Land under Irrigation	17,357	19,886	21,619
Forest (State)	22,066	22,140	22,068
Forest (Private)	25,000	25,000	34,540
Total Forest	47,066	47,140	56,608

(1) Area harvested

(2) Inc. Tobacco

Table 6: Agricultural Land Utilisation 2003-2018

## 6-1 Draft National Land Development Strategy

Between 2003 and 2011, agricultural land under irrigation had declined from 21,600 ha to just under 20,000ha; it had further declined by over 2,500ha to 17,350ha by 2018. Around 47,000 ha of land are under forest cover of which 25,000 ha are privately owned forest lands and 22,100 are state-owned; however only 6,550 ha of these private lands are protected by law as Mountain or River Reserves. Including Black River Gorges National Park and Pas Geometriques just over 8,000ha of state forest lands are protected as Nature or Islet Reserves.

Mauritius is a net food importer, with an overall self-sufficiency ratio of less than 30%. Main items imported include wheat, rice, oil, fresh fruits, meat and milk. Over the last 5 years, this gap has been rising, indicating an increasing dependency on imported food. Although there are a few irrigated networks, food-crop production continues to be largely rain-fed resulting in surplus vegetable production during the winter months and a shortage in the summer months. Over the last decade, production of selected crops namely tomato, green pepper and cucumber have started under soil-less, protected structures. There is also growing interest for mushroom production. In 2018, food imports accounted for 18% of total goods imported. Local production of food crops declined by 9.2% in 2018.

The share of agriculture in the economy, which stood at 7% in year 2000 was 3% in 2018. The sector contributed 7.3% of total exports of goods in 2018, down from 14 % a decade ago. The agricultural sector grew on average by 0.6% during the period 2015-2018. In 2000, agricultural employment comprised 54,300 (10.9%), of whom 54% were involved in sugar activities. By 2018 direct employment was 44,200. In the food crop sector, 8,000 small farmers cultivate food-crops on holdings averaging 0.25 ha, and a small number are now growing fruits and flowers for export markets. Some have embarked on vertical integration into food processing to add value to their produce.

Around 5,000 small farmers are active in the livestock sector producing milk and meat. While the corporate sector is heavily involved in the sugar sector, it has diversified its portfolio to cover food crops, venison, poultry, animal feed and processed milk products. It is estimated that around 50% of agricultural production comes from the corporate sector.

In the agricultural sector the paradigm shift is towards better quality services and healthier lifestyle products which are convenient and affordable as consumers become more demanding and knowledgeable about their food production. There is also an insistence on sound environmental practices, promotion of biodiversity and sustainable use of natural resources to ensure the livelihoods of future generations of farmer.

Key policies and challenges include:

## 6-1 Draft National Land Development Strategy

- Introducing a comprehensive National Agri-Food Development Programme to promote the farm to fork concept and reduce dependence on imports.
- Ramping up production of a larger volume and higher quality of quality food-crops to satisfy demand generated by higher per capita consumption of fruits and vegetables in support of healthier lifestyles and the needs of future inflows of tourists.
- Mitigating climate change effects that threaten conservation of agricultural land, national parks and forest biodiversity due to increasing numbers and variants of undesirable pests and invasive species.
- Encouraging smarter agricultural land use: strengthening schemes to cultivate abandoned lands and develop a comprehensive centralised land data bank to ensure optimal utilisation of prime agricultural lands.
- Preserving biodiversity: enhance forests and national parks through restoration and reforestation programmes and protect the unique flora and fauna from invasive species.
- Conducting a comprehensive forest inventory and provide basic amenities in natural parks to enhance eco-tourism.

After allowing for climatic and market risks as well as eco-friendly production methods, an annual increase of at least 4% in gross value addition from agriculture is targeted for the next decade.

### **AG1 Agricultural Land and Food Security (AG1, AG3, AG5, AG7, AG10)**

Agricultural land and buildings required to sustain long term sugar sector uses or for supporting national food security objectives as defined by the Ministry of Agro-Industry and Food Security (MAIFS) including designated organic bio-farming and sheltered farming clusters should be safeguarded from development.

Development of agricultural land and buildings which are surplus to long term sugar sector requirements or are not required to support national food security objectives should be permitted providing the proposed development:

- would create local jobs or help replace jobs lost in the agricultural sector.
- would help retain social and community cohesion.
- would help contribute to the Government's biodiversity commitments and mitigate the effects of climate change.

and the proposed development would not:

- form part of an Environmentally Sensitive Area (ESA) as defined by the MESWMCC, or
- form part of a Protected Area as defined by the MAIFS, or
- detrimentally impact the safeguarding of sites for State-significant development or the development of area-wide regeneration schemes.

### Reasoned Justification

The Government intends to introduce a comprehensive National Agri-Food Development Programme to promote the farm to fork concept, ensure food security, reduce dependence on imports and support the drive towards healthier lifestyles. This programme will require more land to be brought under cultivation, for which a centralized land bank of state and private agricultural land will be set up to match demand and supply for land that can be used for food production. According to estimates there are currently 7,000-10,000 acres of abandoned land that will could be placed on the platform for immediate use.

Unutilised lands and buildings represent a waste of valuable resources and a missed potential for novel initiatives. To assist the conservation and optimal utilisation of the country's limited fertile lands, the centralized land bank will be organised to monitor land use and land use changes. It will also assist MAIFS to manage more effectively land settlements and other leased areas to ensure compliance with the provisions of lease agreements.

Effective use of available land can include employment-generating initiatives in agri-tech to increase land productivity and sustainable production and ensure food and nutrition security; bio-tech and biological inputs in production systems; tools to address labour shortage, improve post-harvest life and minimise food wastage. Initiatives that support climate change mitigation and adaptation objectives including encouraging inland eco-tourism schemes to reduce pressures on the coastal zone and restoration and reforestation programmes to preserve biological diversity should be incentivised.

### Modification Justification

- New policy required to safeguard suitable land for long term sugar and food security purposes.
- Increased demand for a range of general and specialist food products, including from an aging population.
- Drive towards healthier lifestyles will generate demand for a range of agricultural services and products involving agro-tech, aqua tech and bio-farming activities.
- Ensure food self-sufficiency.

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- Provide equitable distribution and storage of food products in rural areas.
- Make optimum use of agricultural land and farm buildings.
- Consider opportunities for conversion of redundant or underused legacy buildings for new employment creating uses to sustain local communities.
- Revitalize and incentivize rural and coastal regeneration.

### **AG2 Development on Small Parcels of Agricultural Land (AG5)**

Development of small schemes on small pockets of agricultural land and buildings which are surplus to long term sugar sector requirements or are not required to support national food security objectives as determined by the Ministry of Agro-Industry and Food Security and should be permitted where they are required to sustain local needs in accordance with Policy AG1, providing the proposed development:

- would create local jobs or help replace jobs lost in the agricultural sector.
- would help retain social and community cohesion.
- would help contribute to the Government's biodiversity commitments and mitigate the effects of climate change.

and the proposed development would not:

- form part of an Environmentally Sensitive Area (ESA) as defined by the MESWMCC, or
- form part of a Protected Area as defined by the MAIFS, or
- detrimentally impact the safeguarding of sites for State-significant development or the development of area-wide regeneration schemes.

Opportunities for conversion of surplus land or underused agricultural sector legacy buildings should be prioritized where they can contribute towards new employment- creating uses and climate change mitigation including eco-tourism and agro-tourism to sustain local communities, skills and traditions.

### **Reasoned Justification**

The Government's comprehensive National Agri-Food Development Programme aims to ensure optimal use of available land for which a centralized land bank of state and private agricultural land will be set up to match demand and supply for land that can be used for food production.

Under this programme where small parcels of land are no longer required to support long term sugar requirements of for securing self-sufficiency in food production, small planters having up to 10 acres of agricultural land will be allowed to convert up to 10% of this land for residential or commercial purposes.

Such incentives can support or initiate rural regeneration schemes by optimizing investments in existing but underused or redundant sites and buildings for new employment creating uses while mitigating climate change effects. Encouraging small planters to consider authentic eco-tourism activities, nature-based eco-lodges and agri-solar enterprises on abandoned sugar parcels in order to reduce pressures on the coastal zone should be supported. By repurposing small parcels of land and buildings for other beneficial uses, established community skills and traditions as well as local travel patterns can be sustained for social cohesion.

### Modification Justification

- Changing demand stimulated by Government policy thrust towards high tech food-security initiatives.
- Need for incentives to support Rural Area Regeneration.
- Optimizing investments in existing but underused or redundant sites and buildings for new employment creating uses to sustain local communities.
- Need to maintain established community skills and traditions for social cohesion.

#### 6.10.1. Poultry and Livestock sub sector

The efficient operation of the livestock sub-sector which makes an important contribution to helping achieve the Government's food security objectives, but which is categorised as a bad neighbour land use continues to be hampered by complaints from nearby residents and related difficulties in complying with environmental regulations. The use of environmentally-sound technologies and resource- efficient sites and buildings can help mitigate these adverse effects.

#### **AG4 Poultry and Livestock (AG8)**

Applications for new premises for poultry and livestock- rearing need to be assessed in terms of future consumer demand as well as potential environmental impact on nearby sensitive land uses and the need for buffer zones. Requirements for the use of modern buildings and equipment in accordance with EIA licence conditions and operator monitoring of emission control norms will be important considerations.

Where applicants are seeking to intensify poultry and/or livestock- rearing premises at existing sites, consideration should be given by responsible authorities to incentivizing operators to modernize their premises and equipment with environmentally-sound plant and equipment to mitigate any adverse effects on the amenity of nearby sensitive land uses.

### Reasoned Justification

Poultry and livestock rearing is associated with problems of foul odours and inadequate waste disposal systems. Producers are concerned to minimise the adverse impact of their operations on local neighbourhoods while farmers should be allowed to continue animal rearing subject to appropriate environmental and emission control safeguards, in support of Government aims to achieve food security and self-sufficiency as far as possible.

Where operations are being intensified at existing sites and premises, consideration should be given by responsible authorities to incentivizing producers and operators to monitor and use environmentally -sound technologies to mitigate adverse environmental impacts on nearby sensitive land uses.

The location of new undertakings should be carefully controlled in accordance with Policy SP17 which seeks to establish 1km minimum buffer zones between ‘bad neighbour’ land uses and sensitive sites such as Protected Areas as defined by the MAIFS, as well as existing housing, community health and education facilities. The confirmation of a “minimum” distance of 1 km was confirmed in the recent Privy Council decision on the interpretation of the buffer zone.

### Modification Justification

- Changing demand stimulated by Government policy thrust towards high tech food-security initiatives.
- Revitalize and incentivize opportunities for achieving food-security objectives.
- Create opportunities for increasing resource-efficient use of redundant or underused buildings to sustain local employment opportunities.

### 6.10.2. Bio-Farming

The Government is implementing a new agricultural reform package which includes encouraging the shift to modern organic bio-farming and niche food production. The shift towards bio-farming will require new tools and models of development with standards and norms defined to encourage rural competitiveness and innovation and ensure the production of safe and quality food. Incentives will encourage the adoption of sustainable practices and agri-business ventures in processing food for local and export markets.

#### **Policy AG5 – Bio- Farming (AG10)**

Specialised agricultural clusters devoted to the pursuit of organic production should be protected from new development and encroachment from engineering works and identified

in revised Outline Planning Schemes in consultation with the Ministry of Agro-industry and Food Security.

### Reasoned Justification:

In accord with the Government Programme 2015-2019, the MAIFS strategy for the period 2016-2020 promotes the development of sustainable agriculture and organic farming through environment- friendly production techniques and efficient management of natural resources. The drive for healthier lifestyles and higher quality food products will also stimulate demand for bio farming which calls for special production practices. Designation of specific areas or clusters for such production will provide the necessary protection for farmers undertaking organic production from their immediate “non-organic” neighbours.

## 6.11. Irrigation

Water for irrigation, which is limited, is obtained from rivers, impounding reservoirs and boreholes in the Curepipe, Northern and Southern aquifers. Substantial investments have been and continue to be made into de-rocking, irrigation and mechanisation projects both by the Government as well as the private sector, with a view to increasing agricultural productivity and optimising labour requirements to achieve national targets for securing food self- sufficiency for the domestic market.

### **AG6 Irrigation and Urban Development (IR1)**

Land under irrigation or land that is required for future irrigation schemes to sustain long term sugar sector uses or for supporting national food security objectives as defined by the Ministry of Agro-Industry and Food Security and the Irrigation Authority should be protected from urban development.

Proposed development that is likely to impact or encroach on land under irrigation or land that is required for future irrigation schemes should not be permitted.

### Reasoned Justification

Irrigation schemes represent significant infrastructure investments, and the tendency of the Irrigation Authority is to lay emphasis on efficiency and effective use of available water resources to increase productivity of existing systems and resources. To sustain support for long term sugar sector needs or to help achieve national food security objectives, resource-



efficient use of existing investments in irrigation infrastructure should be safeguarded and optimized.

### Modification Justification

- Revitalise and incentivise opportunities for achieving food-security objectives.
- Create opportunities for increasing resource-efficient use of existing investments in irrigation infrastructure.

## 6.12. Fisheries

The Government intends to unlock the potential of the Blue Economy while implementing measures to protect the oceans, lagoons and their marine resources. Traditional in-lagoon fishing is no longer sustainable and so fisher groups in small coastal communities need to be supported with upgraded infrastructure such as landing jetties and support facilities including boat maintenance and storage, to grasp the opportunities offered by Mauritius' Exclusive Economic Zone (EEZ) and its extensive fish stocks.

In support of these measures the Mauritius Investment Corporation (MIC) is to invest in joint ventures engaged in fishing activities and its value chain to develop the fishing industry. In addition, an inland aquaculture scheme will be introduced.

### **AG7 Fisheries (New Policy)**

Provision of facilities for off-lagoon fishing will be supported in existing ports. The upgrading of jetties, quays, docks, maintenance areas and warehousing will be encouraged where these can contribute to sustaining local fisher communities.

### Reasoned Justification

To support Government aims for developing the fishing industry and sustaining traditional fishing communities, the policy promotes the expansion and modernisation of facilities that facilitate off-shore fishing to promote food security and economic development in the coastal regions.

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### New Policy

- Policy promotes the expansion and modernisation of facilities that facilitate off-shore fishing to promote food security and economic development in the coastal communities.

## 7. Natural Resources

### 7.1. Overview/Context

This section provides the National Land Development Strategy policy framework for Natural Resources. Mauritius is endowed with many natural resources which can be exploited for the benefit of the economy. Some, such as forestry, can be replenished with afforestation programs. Others such as minerals are non-renewable but can be extracted in a manner which makes the land use sustainable.

Other natural resources, such as aesthetically pleasing rock formations, must be protected and this is covered in Section 8 under Natural Environment.

### 7.2. Natural Resources

There has been increasing conflict between the winning, working and processing of natural resources in Mauritius as urban areas expand. Industries such as rock quarrying and stone crushing that were previously isolated are now more in conflict with urban development and in particular sensitive uses.

Although making an important economic contribution to helping achieve the Government's building construction targets, the quarrying industry is regarded as a bad neighbour and continues to be hampered by complaints from nearby residents and related difficulties in complying with environmental regulations. The use of environmentally-sound technologies and resource- efficient sites, infrastructure and machinery can help mitigate these adverse effects.

#### **NR1 Transport around Rock Quarries and Crushing Plants (NR3)**

The EIA process must consider transport impacts arising from the operation of rock quarries and crushing plants which may be more far reaching than the 1km buffer required in SP17. A traffic impact assessment (TIA) should be included in the scope of works of the EIA. Heavy vehicles accessing and egressing rock quarries and crushing plants should be restricted from using routes through residential areas and other sensitive land uses, town centres and sensitive environments including scenic landscapes.

### Reasoned Justification

The operation of a quarry or a rock crushing plant does not just involve the quarry site itself. Once rocks or other minerals have been extracted, either by blasting or excavation, they must be processed further and transported. Carry over of mud onto roads must be controlled by wheel cleaning facilities at the access point of the quarry. Trucks must not be allowed to leave the site without passing through wheel washing such as water sprays or wheel cleaning facilities such as metal grids at access/egress points to improve road safety. All transported materials must be securely covered.

### Modification Justification

- Policy updates guidance contained in the justification of the 2003 NDS policy.
- Potential nuisance and hazards from quarries extend to the roads as well as just the quarry site.
- Police must be instructed in how and why to stop lorries not complying with these regulations.

### **NR2 Close Out Plan and Afterlife of Quarries (*New Policy*)**

Proposals for new quarries should include a site closure and remediation plan as part of the BLUP and EIA procedures. The plan should give details on timing of the closure, fencing off of the perimeter, infilling of any ponds presenting a drowning hazard and rehabilitation to a permitted use consistent with the relevant Outline Planning Scheme. Permit conditions should include funding arrangements including provision by the developer or site owner of a bond or similar financial mechanism to be held by the responsible authorities until such time as the closure plan is adequately implemented according to the terms and conditions of the permit.

### Reasoned Justification

If an application is made for a new quarry to be permitted to commence operation then a total life cycle evaluation should be carried out before permission is given. The life of the quarry may be several decades and will last until the materials being extracted are exhausted or no longer economically retrievable. Once the materials are no longer being extracted the quarry operation may stop and the equipment be removed. However, the responsibility of the quarry operator does not cease at this point. They cannot just abandon the quarry and leave it to the elements. Abandoned quarries are a hazard to local residents, particularly children and an

eyesore. The initial application must contain a site closure plan. If properly planned, quarry sites can be put to beneficial environmental and economic uses following closure and remediation. Sites which have a clay layer in the base of the excavation can be used as sanitary landfills. Impounded water can be changed into ponds for recreational uses or become fish ponds. The edges of any ponds should be made gently sloping not steep to prevent children falling and drowning. Fencing around ponds, warning signs and life belts should be provided discourage children from swimming.

Any costs of site rehabilitation to becoming a useful amenity must be charged back to the operator. It may be appropriate to require the developer of a new quarry to lodge a financial bond with the authorities to be returned on satisfactory closure, or to be cashed in and used to implement any remedial measures by the authorities themselves.

Existing quarries should be required to submit a closure plan which is time bound, budgeted and enforceable with a clear explanation that if remedial measures are not implemented at cessation of quarry operation, then the authorities will take all necessary steps to render the quarry safe and back charge all costs to the quarry operator. If necessary legal steps can be taken to recover such costs.

### New Policy Justification

- When approving new quarries or an extension of a new quarry or monitoring the activities of an existing quarry, the total life cycle must be considered.
- Even when all materials have been removed and the quarry operation ceases, the quarry owner's responsibilities do not end. They cannot walk away and abandon the quarry.
- Abandoned quarries are a hazard and an eyesore. Quarry owners should be required to produce a comprehensive closure plan explaining what they intend to do with the empty excavation.
- If properly planned quarry sites can be put to environmental and economic beneficial uses following closure and remediation.
- Any costs of site remediation and land rehabilitation to ensure becoming a useful amenity must be allocated to the operator who can be asked to deposit a bond guaranteeing his performance.
- Failure to do so can result in the authorities taking necessary steps and charging incurred costs back to the quarry owner.

### 7.3. Forestry

Rapid economic development, limited land area, an increasing population and more lucrative alternative land uses such as housing development and ranching bring constant pressure to bear on forest lands. In 2003 there were 56,600ha of forests (state and private), prior to which time, some 10,000 hectares of forest lands had been cleared mostly for infrastructural developments, including built-up areas, roads, agriculture, reservoirs and dams. By 2014 the total extent of forest cover in Mauritius had fallen again, by another 10,000ha to 47,103 ha, representing about 25% of the total land area. Good quality native forest i.e.. having more than 50% native plant cover, is estimated to cover less than 2% of the island, with the remaining forests consisting of plantation forestry or highly-degraded vegetation invaded by alien plant and animal species, thereby posing serious threat to biodiversity.

These areas have now been converted to national parks, nature reserves or other Protected Areas. Large areas of degraded, upland native forests have since been re-afforested with fast growing exotics that form the bulk of the forest plantations.

The forest sector provides direct and indirect employment to some 5,000 people in forest resource management activities, biodiversity conservation, tree planting to provide soil cover in environmentally fragile areas, wood production and processing, wildlife capture and export, deer ranching and eco-tourism. The upland forests of Mauritius play a vital role in soil and water conservation and the production of rain-fed and irrigated agricultural crops at middle and low altitudes.

Besides wood, there are non-wood products consisting mainly of venison, feral monkeys, fruits, fibres and medicinal plants. Due to limited land resources, timber exploitation in Mauritius is set to be phased out, and the focus shifted to conservation, non-consumptive uses and sustainable forest management. The contribution of the sector to the Gross National Product is estimated to be about one percent. This is a gross under-estimate since the ecological services of forests, now deemed to be of considerable value, are not considered in National Accounts.

The Government Programme 2020-2024 highlights the creation of three new endemic forests and the restoration of existing ones, which are to be accessible for hiking and nature walks. The tree planting programme is aimed at increasing tree cover throughout the island; existing legislation and policies will be reviewed to increase tree and forest protection; special care will be taken of environmentally-sensitive areas such as watershed and steep slopes; biodiversity and ecosystem services will be enhanced; and the general public will be educated on the importance and value of the trees and forests.

Consideration should be given to incentivizing landowners and stewards (large estates and small planters) to increase tree cover and the restoration of degraded forest lands which are essential to maintaining vital eco-systems, protecting and conserving soil quality and help retain stormwater run-off to reduce the risk of flooding for the benefit of the general population.

### **NR5 Forests (FO1)**

Protect, conserve and restore endemic forests, planting schemes and tree cover in mountain and river reserves, private and state- owned forest lands and degraded forest areas and in other areas identified in the national Protected Area Network in order to comply with the international Convention on Biological Diversity.

Funding should be secured through national and international sources (for example via the National Environment Fund) to increase and enhance tree cover.

Where State control of forests is the best management mechanism to ensure forest longevity while protecting particular rare and endangered species, acquisition of significant private forest lands when in the public interest should be incentivized in accordance with the provisions of the Ministry of Agro-Industry and Food Security and the Conservator of Forests (MAIFS/NPCS) Wetlands Bill (2020).

Permit conditions in favour of public interest should be used where new development schemes are considered to benefit from a backdrop of tree cover or utilise tree cover as part of the ambience of a leisure or recreational experience (for example in hunting chasses).

Potential sites for tree planting and re-afforestation should be identified in revised Outline Planning Schemes in consultation with the MAIFS and the Conservator of Forests. All reasonable steps will be taken to prevent and control Invasive Species which may endanger forests, habitats, ecosystems and indigenous flora and fauna.

This Policy should be seen as an important instrument of Policy AG1 on Agricultural Land, Food Security and Diversification.

### **Reasoned Justification**

Forests are invaluable assets harbouring a rich biodiversity, and they protect watersheds and environmentally sensitive areas. They need to be protected from degradation, conserved and further enhanced. Given their roles in mitigating climate change impacts, management will aim

at increasing tree cover and will favour non-consumptive uses and those activities that are sustainable, less destructive and more rewarding in the long term.

A modern lifestyle and rising incomes also increase, demand for leisure and recreation in natural surroundings. Eco-tourism is on the rise. More and more people are visiting the forests for leisure activities such as shooting, fishing, jogging, camping, picnicking, collecting wild fruits, watching wildlife and, as a result, are expecting better facilities and services from the forest sector. Recent Government announcements for the creation and restoration of endemic forests to be accessible for hiking and nature walks reinforce these aims.

Funding from new development or redevelopment (for example via the National Environment Fund or Wetland Bill/Act ) should be considered to increase and enhance tree cover and offer a financial incentive for owners to maintain natural assets which would benefit all Mauritians.

Alternatively, State control of forests could be considered as a suitable management mechanism to ensure forest longevity and protection of particular rare and endangered species. Holistic incentivization mechanisms and permit conditions should be used particularly if new developments benefit from a backdrop of tree cover or utilise tree cover as part of the ambience of a leisure or recreational experience (for example in the hunting and shooting reserves).

### Modification Justification

- Government policy thrust towards increased resource- and energy- efficiency uses and food-security initiatives.
- Support sustainable management of forests to enhance social, environmental and economic functions.
- Support options for rural regeneration activities that can help sustain local communities and traditional workforce skills.



## 8. The Natural Environment

### 8.1. Overview/Context

This section provides the policy framework for the protection and enhancement of the natural environment. Environmentally valued and sensitive sites are often protected by primary legislation with the planning system providing an additional level of protection and the framework against which development decisions can be made. In addition to the terrestrial environment the lagoons fall within the scope of the National Land Development Strategy.

### 8.2. Environmental Management

Mauritius has a rich biodiversity spread across its many ecosystems and strenuous efforts are made to protect this. As a country Mauritius has ratified the Aichi Biodiversity Target 11 of the Strategic Plan for Biodiversity 2010-2020 which calls for Parties to achieve by 2020, at least 17% of terrestrial and inland water areas and 10% of coastal and marine areas to be protected by legislation. In 2020, the Protect Area network in Mauritius was around 4% of the terrestrial land area. The Strategic Plan for biodiversity places particular importance on biodiversity and ecosystem services, which are conserved through effectively and equitably managed, ecologically representative, and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the wider landscape and seascape. Although the Strategic Plan sets targets, these can only be achieved through effective environmental management. This requires cooperation and liaison between many interested and involved parties. Previous studies have identified Environmentally Sensitive Areas (ESAs) and these form a basic building block in the process by which sustainable development is encouraged and yet valuable natural assets remain protected. One of the many tools available to be used in the protection of ESAs is the EIA process. In addition to this, many agencies can play a significant role in successful environmental management within their existing and current rules of engagement providing appropriate resourcing, coordination and implementation measures are in place.

#### **ENV1 Environmental Management (ENV1)**

Within or adjacent to sites identified and approved by the Ministry of Environment as Environmentally Sensitive Areas (ESAs) there will be a general presumption against development. Any development proposed within or adjacent to ESAs will be required to first obtain an Environmental Impact Assessment licence under the Environmental Protection Act

2002, prior to seeking a development permit. Environmental Management of the ESA must be stated and agreed as part of the EIA process. Those sites which are not formally identified as an ESA but are of ecological value should be identified and considered during the EIA process and shall be subject to the same protection as those sites identified as an ESA.

For those sites currently not identified and approved as ESAs or of ecological value, but which are identified in the Protected Area Network, the precautionary principle should be applied to the determination of planning permits.

Environmental Management is a cross sectoral issue, and a holistic approach must be adopted. Environmental Management will be incorporated in traffic management (See Policy T4), control of noise and air pollution in urban environments (See Policy BE11 and BE12), handling of hazardous and toxic waste and (See Policy T7 and SW1) and climate change adaptation by control of Green House Gases emissions (See Policy T8).

### Reasoned Justification

There is a wide range of terrestrial and marine environmental assets located throughout the island of Mauritius that are under development pressure and environmental stress from a combination of factors including land use development and environmental change. It is vital for these national environmental assets to be protected for existing and future generations of Mauritians.

Continuing and enforcing protection and conservation of the most vulnerable natural environments, cultural heritage sites and scenic landscapes including Environmentally Sensitive Areas (ESAs) protected in legislation whilst setting out clear and unambiguous conditions for permitting development on other sites is an important challenge for responsible authorities. Mauritius has made a commitment on the international stage under the Aichi Biodiversity agreement and must be seen to honour this.

### Modification Justification

- Simplification and strengthening of the policy to ensure that all identified and approved ESAs are protected by the EIA process.
- Providing a level of protection for sites that have been recognised as containing environmental, scientific or cultural historic value as part of the Protected Area Network or a UNESCO World Heritage Site.
- Meeting Mauritius's obligation under the Aichi Accord.

### 8.3. Wetlands and Lagoons

Wetlands and Lagoons are important environmental assets that have been put under threat and stress due to poor agricultural and land use development practices. The infilling or diversion of wetlands not only damages important wildlife habitat but can lead to flooding of other areas due to the natural systems of which they were an integral part being disrupted. With the impacts of Climate Change the need to protect and restore wetlands is more critical now than ever.

Wetland restoration is the manipulation of a former or degraded wetland's physical, chemical, or biological characteristics to recover its natural functions. Restoration practices include: Re-establishment, the rebuilding of a former wetland; and Rehabilitation, repairing the functions of a degraded wetland. Wetlands protection is defined as removing a threat or preventing the decline of wetland conditions.

#### **ENV2 Wetlands (ENV2)**

Within or adjacent to sites that meet the Ramsar Convention definition of a wetland there will be a general presumption against development. Any development proposed within or adjacent to wetlands will be required to first obtain an Environmental Impact Assessment licence under the Environmental Protection Act 2002, prior to seeking a development permit. Environmental Management of the wetland must be stated and agreed as part of the EIA process. Where removal of wetlands is unavoidable then creation of an equivalent "offset" must be considered.

#### **Reasoned Justification**

Although there is a general presumption against most forms of development within or adjacent to wetlands, there may be cases where new development in close proximity to wetlands can support a vulnerable site's future management, maintenance and funding to enhance its ecological value. In such cases, including areas or sites that may qualify in the future as wetlands protected under the Ramsar Convention, an environmental management programme between the developer and responsible authorities should be agreed, funded and implemented as part of the EIA process. Creation of offsets managed by the private sector should be an acceptable amelioration factor.

### Modification Justification

- Simplification of policy to ensure that all sites that meet the criteria of a wetland are covered with a general presumption against development.
- Promotion of management of wetland as part of any development in close proximity to the wetland.

### **ENV3 Restoration of Wetlands (ENV3)**

The restoration of wetlands is encouraged in recognition of their valuable contribution to landscape and ecology. Many degraded wetlands exist on private property as well as on State land. Wetlands can provide many ecological functions such as birdlife habitats, water filtration and wave protection.

Private landowners and state enterprises will be encouraged to restore and/or manage wetlands and offer the services provided by them through for example PES (payment for ecological services, under the Wetlands Bill 2020) or other forms of incentivization (e.g., payment by a wastewater treatment plant for allowing effluent to discharge across the wetland or selling tickets to birdwatchers).

Similarly, degraded wetlands on state land will be restored as an economic benefit due to their carbon sink properties.

Participation by NGOs, communities, schools and individuals will be encouraged.

### Reasoned Justification

Active encouragement of private owners to participate in wetlands protection can help in creating biodiversity zones managed through local community partnerships (e.g., payment by WMA/wastewater treatment plant for allowing effluent to discharge across the wetland or selling tickets to birdwatchers). Wetlands protection and restoration can also contribute to expanding and enhancing national and regional green and blue infrastructure networks in accord with Government biodiversity commitments while increasing the number of sites that may qualify for Ramsar status.

### Modification Justification

- Broadening of benefits of wetland restoration and management and those who can play a part in implementing the policy.

## 8.4. Coastal Zone Management

The coastal environment is one of the most fragile environments in Mauritius and the area most at risk from climate change. It is also one of the main attractions in the tourist industry as well as the foundation of the coastal economy. (See Policy TM6 and Policy Ag7). The practice of Integrated Coastal Zone Management (ICZM) is an internationally recognised process for the protection and management of coastal environments. There is an Integrated Coastal Zone Management (ICZM) Division within the Ministry of Environment and they act within the ICZM framework.

In addition to controlling further intensive coastal development in areas which are currently saturated and overloading the natural carrying capacity of the environment, a paradigm shift to divert future development away from the coast and encourage inshore tourist hubs is proposed. This will relieve the pressure on the coastlines. There are many inland attractions based on natural beauty which can become the centre of new touristic enterprises (See Policy ENV5).

### **ENV4 Coastal Zone Management (ENV4)**

A policy of Integrated Coastal Zone Management (ICZM) will be followed. Within or adjacent to sites that are classed as a coastal zone by MESWMCC ICZM Division there will be a general presumption against development.

Any development proposed between the low water and highwater mark will be required to first obtain an Environmental Impact Assessment licence under the Environmental Protection Act 2002, prior to seeking a development permit.

Any proposed structure which interferes with the natural tidal water flow must obtain an Environmental Impact Assessment licence. Environmental Management of the coastal zone must be stated and agreed as part of the EIA process.

### **Reasoned Justification**

There is a general presumption against most forms of development within the coastal zone outside tourism zones and established settlements unless an EIA has been prepared, an environmental management programme agreed and an EIA license has been granted.

Over the plan period and beyond the potential impacts of sea level rise, storm surge and tsunami events on coastal communities and natural environment assets needs to be considered. In the long term development planning and disaster risk reduction programmes need to reinforce the requirement to diversify tourism away from coastal areas and towards inland sites and locations.

### Modification Justification

- Recognition that Integrated Coastal Zone Management is an important component of the country's Natural Environment Management programme through establishment of the ICZM Division within the Ministry of Environment, Solid Waste Management and Climate Change.
- Recognition that further coastal area tourism development at the expense of the environment is unsustainable and that developing alternative inland tourism and heritage sites is an integral means of mitigating these pressures.

## 8.5. Landward Coastal Area

High desirability of coastal property has continued to place pressure on the coastal area, particularly in what is known as the Coastal Frontage Area. Planning Policy Guidance in the form of Technical sheets has been produced since the 2003 NDS providing detailed technical guidance and criteria for development in the Coastal Area and which is currently under review by responsible authorities.

### **ENV5 Landward Coastal Area (ENV5)**

Development within the landward coastal area should follow the guidance set out in Planning Policy Guidance as updated relating to coastal development following the area- based approach to development with greatest protection and scrutiny given to development in the Coastal Frontage Area (a strip of land of a minimum 81.21m from the high water mark), followed by the Coastal Road Area and Inland area.

Development within the Landward Coastal Area should be of the highest design quality and holistically integrated into the local topography and landscape taking into account the socio-economic and environmental impacts on local communities and natural and cultural heritage assets.

### Reasoned Justification

There is a general acknowledgement that the coastal zone has reached a saturation point in terms of high- end hotel and resort sites, while the few public beaches that are accessible to the local population are often over-crowded and time-consuming to access particularly at festival times.

In order to avoid further loss or degradation of coastal public open spaces, future tourism activities should be re-directed to inland sites and locations. In such cases, development proposals will be required to follow the EIA process as many of the inland features such as visually- stunning rock formations are equally fragile and vulnerable as some coastal assets and their attractiveness can easily be destroyed by imprudent actions.

### Modification Justification

- Policy has been updated to reflect the detailed guidance contained in updated Planning Policy Guidance and to ensure that all developments follow this guidance.
- Reinforcing provisions in the new NLDS to redirect further tourism development to inland sites and attractions.

## 8.6. National Parks and Reserves

Protected national parks and nature reserves cover around 4% of the terrestrial land of Mauritius as provided for under the Native Terrestrial Biodiversity and National Parks Act 2015. Along with Ramsar Sites and Islets, National Parks and Reserves make up the existing Protected Area Network (PAN) of Mauritius. Most of this land is privately owned. The National Land Development Strategy endorses the on-going protection of these natural areas, which are recognised for their national significance.

### **ENV6 National Parks and Nature Reserves (ENV6)**

Major new development shall not be permitted within a National Park or Nature Reserve other in exceptional circumstances with the conservation and enhancement of these areas given priority.

Opportunities to enhance the valued characteristics of the National Parks including scenic landscapes should be identified by all stakeholders, demonstrating that the proposals offer

significant benefit to the natural beauty, wildlife, and cultural heritage of the area. Enhancement can include the treatment, adaptation, retrofitting, re-use or removal of non-conforming buildings, structures or uses.

### Reasoned Justification

Mauritius is party to international agreements (Aichi Accord) that seek to preserve and increase the percentage of land that is protected under Environmental legislation. The Protected Area Network (PAN) in Mauritius is around 4% of the terrestrial land area compared with Aichi Biodiversity Target (Target 11 of the Strategic Plan for Biodiversity 2010-2020) of at least 17% of terrestrial and inland water areas (and 10% of coastal and marine areas) to be protected by legislation.

To achieve the Aichi Biodiversity Target, sites that have been recognised as containing environmental, scientific, or cultural historic value as well as UNESCO World Heritage Sites need to be protected.

Mauritius has committed to reducing GHG emissions and so inhibiting climate change under the Paris Accord (2015). Incrementally increasing the amount of land under afforestation, ecological re-use of abandoned sugar lands and inclusion of green space and usable open space provision in new developments can all contribute to mitigating climate change effects by sequestering of carbon in vegetation.

### Modification Justification:

- Update of policy title to specifically cover National Parks and Nature Reserves.
- Need to strengthen the use of the EIA process in controlling such development.
- Promotion of enhancements to areas through adaptation and re-use of existing buildings and structures that add value to the area or removal of features or uses that detract from the quality of the area.

## 8.7. Landscape Character

Landscape Character Assessment is a recognised process that enables the identification and description of elements, features and use and provides a broader context for the assessment of new development that visual impact assessment alone. The Landscape Character Assessment can help inform strategic decisions around how land is managed and developed. The process can assist in tracking progress over time, recording whether landscapes are deteriorating, improving or have completely changed in character.



#### **ENV7 National Landscape Character (ENV7)**

All development should look to respond to the Landscape Character of its setting. For those developments requiring an Environmental Impact Assessment, they need to demonstrate how the development seeks to protect and enhance the Landscape Character of its setting. In areas of poor or ill-defined character, development should build on the positive elements that do exist having regard to the wider landscape setting of Mountains, River Valleys and the Coast. Visual Impact will be stressed as a Key Consideration in an EIA.

#### **Reasoned Justification**

Promotion of enhancements to landscape character areas through adaptation and re-use of existing buildings and structures that add value to the area or removal of features or uses that detract from the quality of the area should be encouraged.

In addition to natural and built assets, the importance of character areas that may be of social or cultural significance through traditional or historical activities should also be recognised. Utilisation of areas of outstanding landscape character for managing renewable energy supplies such as mountain range summits for pumped hydro storage are also important considerations in both the landscape character strategy and renewable energy programmes.

#### **New Policy Justification:**

- Landscape Character Assessment is a proactive tool for informing strategic land use and land management decisions.
- Visual impact will be required as a chapter in an EIA.

## **8.8. Pas Geometriques**

The Pas Geometriques, a strip of state -owned land (approximately 80m wide extending inland from the highwater mark) located around most of the coast, enables the Government to have an ownership and controlling mechanism for most coastal development. The land has recently been associated with tourism development but can have a much more holistic remit.

#### **ENV8 Pas Geometrique (TM6)**

The Pas Geometriques should be considered as a national resource that can help mitigate the impacts of climate change. To reflect this policy intended development on committed Pas

Geometrique land may only be intensified where it is within an existing settlement boundary as set out in the OPS or is located within a designated Tourism Zone and does not impinge on an ESA. Uncommitted Pas Geometriques land shall be protected from development.

### Reasoned Justification

Pas Geometriques are important national land designations that can help protect and enhance the coastal environment of Mauritius and combat the impacts of climate change.

With a mixture of coastal cliffs, beaches, meadows, in front of pristine lagoons and wild open ocean where sperm whales, sea turtles and rays can be observed, the Pas Geometriques from Le Bouchon to Bel Ombre offer unparalleled hiking, camping and nature experiences.

The role of the Pas Geometrique in managing coastal development extends beyond just tourism uses. The Pas Geometrique contains many ESAs and therefore plays an important environmental role that is reflected in the new position of the policy in the Environmental section of the NLDS and its greater emphasis as a resource in protecting the coastal environment and mitigating the impacts of climate change. Ownership of land gives an additional level of control over the location, type and scale of development. Pristine coastline can be protected from development pressures whilst damaged or threatened coastline environments can be slowly repaired through coastal management plans.

### Modification Justification:

- The policy provides more emphasis on the environmental role that Pas Geometriques can play. They are important national land designations that can help protect and enhance the coastal environment of Mauritius and combat the impacts of climate change.

## 8.9. Geoparks

Geoparks are UNESCO accredited sites where sites and landscapes of geological significance are managed for protection, education, and sustainable development purposes. They encourage a bottom-up approach to conservation and management, involving local communities in the decision-making process.

### **ENV9 Geopark (New Policy)**

The creation of a coastal public Geopark based on the model of the UNESCO's Global Geoparks should be explored along the south east and south coast between Le Bouchon to Bel Ombre with a view towards achieving UNESCO accreditation by the end of the plan period.

The extent of the South Coast Geopark should be defined by the Ministry of Agro-Industry and Food Security, National Parks and Conservation Service and incorporated in updated Outline Planning Schemes in consultation with the responsible Rural District Council, local landowners and community representatives.

### Reasoned Justification

Geoparks provide an additional level of protection to the environment. They also act as an indicator of high-quality environment as a positive natural asset which can be marketed on a global scale, offering international tourism opportunities on top of local environmental benefits. The establishment of a Geopark will provide a strong strategic policy basis for the management of land and development along the South East Coast whilst providing opportunities for international funding and recognition.

The Geoparks would be managed by the MAIFS National Parks and Conservation Service, in collaboration with local landowners and communities. A key principle will be the setting up of coastal passageways with inland links to connect local villages. Public access to coastal parks needs to be both guaranteed and managed at all times to ensure sustainability.

## 8.10. Marine Parks and Fishing Reserves

The Marine Parks have been established to protect the coastal resources of Mauritius and are aligned with the fishing reserves so that the marine ecosystem is protected. It is therefore important that the aims and objectives of both are recognised by the land use planning system.

### ENV10 Marine Parks (F1)

In addition to the requirements under the Environment Protection Act 2002, the aims and objectives of the BalACLava Marine Park Blue Bay Marine Park and the six Fishing Reserves (Port Louis Fishing Reserve, Poudre d'Or Fishing Reserve, Poste Lafayette Fishing Reserve, Trou d'Eau Douce Fishing Reserve, Grand Port Fishing Reserve – Zone A and Zone B and the

Black River Fishing Reserve) should be acknowledged in the assessment of any development which may affect the operations and environmental functions of such Parks and Reserves.

### Reasoned Justification

The policy is framed to restrict the taking of fish to within limits established by the Maximum Sustainable Yield and avoid overfishing which may pass the Tipping Point from which there is no recovery. . This in no way conflicts with the desired intention of protection the natural coastal resources such as avoiding of beach erosion, interfering with offshore current littoral drift or affecting the natural dispersion of rainfall run off, all of which are factors which may be in harmony at the present but if disturbed may lead to irrecoverable loss of a valued ecosystem.

Local communities including fishing communities can be involved to co-manage, monitor and maintain Marine Park protected areas relieving pressures for management on Government agencies.

## 9. The Built Environment

### 9.1. Context/Overview

This section sets out policies on a range of issues relating to the places and spaces in which residents and visitors live, work and visit. They are integral to achieving the island of neighbourhoods vision set out in this document. These neighbourhoods should continue to have a strong sense of attachment for their residents.

A country that takes care over its built environment is key to achieving a high standard of liveability. Mauritius should aim to be celebrated for the quality of buildings and streets, its promotion of the best of modern architecture and protection and utilisation of its built heritage, its protection and extension of green spaces and waterways, together with promoting environments that are healthy, safe and accessible to all.

### 9.2. Place Making

A strong sense of place can help differentiate one place from another, making it memorable and potentially more desirable. A sense of place is derived from a variety of features including the form, function, and structure of an area, place or street and the scale, mass, orientation and architectural style of surrounding buildings plus the setting within the wider landscape. In Mauritius, the coastal setting or views to mountains can play a major part in establishing the sense of place for new development.

#### **BE1 Character and Sense of Place (*New Policy*)**

New development should have regard to the existing form, function and structure of an area, street, or space. It should respect the scale, mass and orientation of surrounding buildings and seek to optimise views to the surrounding landscape whether that is a prominent single feature (such as a mature tree or historic structure), coastline or mountain. In areas of poor or little character new development should seek to utilise the positive attributes of surrounding neighbourhoods to enhance the overall character.

#### Reasoned Justification

Mauritius has a strong character and sense of place that is represented in its built form, natural landscape, streets, and spaces. Character is formed over a long time and changes according to the time of development and the economic, social, and environmental context in which the

development occurs. This is evidenced by the different character examples in Mauritius which include the scale, layout and distinctive architecture of central Port Louis, the vistas of the mountain ranges and coastline, the sugar cane fields of the highlands, plus the low-density villas with landscaped gardens in a grid street pattern of Quatre Bornes. New development needs to be mindful of the characteristics that contribute to the Mauritian sense of place and seek to incorporate these into the design of new developments.

### New Policy Justification

- Greater emphasis to be placed on preserving and enhancing the sense of place of the conurbation, towns, and villages of Mauritius.

#### 9.2.1. Lifetime Homes and Neighbourhoods

Dwellings and the neighbourhoods in which they sit should be adaptable so that they can meet the needs of residents as they go through life. The principle of lifetime neighbourhoods means that residents are not forced to move from their communities to fulfil a comfortable and meaningful life. The same design ethos can enable those with physical impairments to also remain in their communities through implementing inclusive or universal design principles. These principles ensure that people of all ages and abilities can access buildings and spaces with ease, moving around the streets in safety and comfort.

#### **BE2 Lifetime Neighbourhoods and Inclusive Development (*New Policy*)**

New development should be integrated into the surrounding neighbourhoods so that people can easily access social and community infrastructure, green spaces, blue/green corridors and public transport. Public spaces should be provided to enable people to live active, healthy lives and provide places for social interaction for all ages.

The public realm should be an inclusive environment suitable for all modes of non-motorised travel, including pushchairs and wheelchairs. Buildings should offer step-free access with minimal ramps and accessible entrances. New development should aim to meet best international practice for inclusive and universal design.

### Reasoned Justification

Successful neighbourhoods are characterised by the provision of a range of social and community facilities that support the day to day lives of residents and provide focal points for community interaction. At the neighbourhood level these are typically schools, leisure and sports facilities and open spaces. It is often difficult for new developments to justify the

provision of some or all these facilities due to the limited size of the development. It is therefore important that new developments are integrated into the existing built fabric so that residents can access the facilities. Likewise, larger development such as Smart Cities are often of a scale that can justify the provision of new facilities. Where this is the case, these facilities should be located so they are accessible to both new residents and existing residents of neighbouring communities.

The needs of residents change through their lifetime. By providing a range of facilities and ensuring that the public realm is accessible for all, neighbourhoods can continue to serve their residents throughout their lifetime without them having to relocate, losing important social ties to the neighbourhood. An accessible public realm enables access to all regardless of ability. This is not limited to those with permanent physical disabilities but covers those who are temporarily affected, have young children or through old age are experiencing restricted mobility. A public realm that can safely accommodate pushchairs, mobility scooters and wheelchairs is highly desired. This means reducing the number of steps and steep slopes and providing accessible alternatives where necessary in line with international best practice on universal design.

### New Policy Justification

- New policy highlighting the importance of providing a range of facilities and services to meet the needs of residents throughout their lives.
- Emphasis on the importance of providing urban environments that enable access to all regardless of physical ability. This is not limited to those with permanent physical disabilities but covers those who are temporarily affected, have young children or through old age are experiencing less mobility.

### 9.2.2. Streets and Spaces or Public Realm

The public realm is defined as all the publicly accessible space between buildings. It includes streets, footpaths, parks, squares, waterfronts, beaches, and riverbanks. It can be privately or publicly owned. The squares and walkways in shopping malls, metro and bus stations can all be considered as part of the public realm. The quality of public realm in many parts of the Island detracts from the quality of the architecture and landscape, with many footpaths incomplete or poorly designed. This undermines the quality of many places. Addressing the quality of public realm will help support regeneration of places and ensure they are places where people choose to live, work and visit. Most of the public realm in Mauritius will be in the form of roads and streets with the vast majority of these being residential streets expected to move only a small number of vehicles.

### **BE3 Streets and Spaces (*New Policy*)**

Streets and spaces should be designed in a manner where the needs of the pedestrian are placed at the top of the user hierarchy. This means providing a continuous and connected pedestrian network with adequate footpath widths in new developments and retrofitting them into existing streets, prioritising city, town, and village centres and in tourism zones.

Streets should be clear of visual and physical clutter, removing barriers, unnecessary signs and unnecessary or poorly positioned street furniture. Those areas of high intensity use, particularly where a high number of tourists are expected, should have a legible wayfinding system that makes people feel safe, comfortable, and able to navigate their way around. Street furniture needs to be of high-quality materials, have a clear purpose and maintain clear paths through spaces.

The provision of shade, through trees or shade structures is promoted, particularly in mixed-use centres. Landscaping in public spaces should utilise native or highly adaptive species that do not require irrigation during the summer months.

#### **Reasoned Justification**

The quality of the public realm has a significant impact on the quality of life of residents and perception of place for those living and visiting. The public realm is how residents reach their home or destination. Different locations will experience different intensity of use, with some areas being primarily movement corridors, for example in urban and rural centres, tourism zones and around metro and bus stations, whilst other areas will be quieter with the focus being on providing places to relax, sit, play, and dwell outside.

It is important that streets are designed and managed according to their built form context. Residential streets will have a different set of demands than busy urban centre streets with high number of pedestrians and vehicles. Regardless of the type of street there should be a greater emphasis on accommodating pedestrians and cyclists in a manner that is safe and free of impediments to movement in the form of excessive or poorly located signs and street furniture.

Greater emphasis is needed on the quality of materials used in the public realm. Poor quality materials detract from the quality of place and need replacing more frequently, placing a burden on local authorities.



The public realm should be as comfortable as possible which means choosing materials that reduce the urban heat island effect and providing natural shade of walkways and resting areas wherever possible. Dark materials such as roads and pavements absorb solar energy and release it back to the surrounding air as heat. The hardscape should be designed to seamlessly adjust levels between public and private spaces, ensuring all buildings can be accessed by people of all abilities. Vertical softscape elements such as trees provide more shading benefits over shrubs, lawns, and shrubs. Decisions about the use, extent, type, and placement of landscape should be based on the realisation of number of wider benefits relating to micro-climate, human health placemaking, traffic calming and need for irrigation. The use of native and indigenous species of planting is encouraged wherever possible as they reinforce the sense of place, can be grown locally and help to support native fauna.

Making the public realm safer, more comfortable, and more attractive will increase the number of people willing to walk and cycle for short trips and parts of their journey for longer trips supporting the use of public transport.

### New Policy Justification

- The quality of public realm in many parts of the Island are detracting from the quality of the architecture and landscape, and undermining the quality of many places. Addressing the quality of public realm will help support regeneration of places and ensure they are places where people choose to live, work and visit.

### 9.2.3. Density and Tall Buildings

Higher density developments can help reduce the need to travel and support an increased number of services and facilities within walking distance of residents. Tall buildings can form part of higher density developments, but tall buildings alone do not necessarily result in high density development as they may be located on large sites. It is important the positive and negative impacts of both higher density developments and tall buildings are considered together.

#### **BE4 Higher Density Development (SP3)**

Higher Density Developments should be located on sites within short walking distance (<400m) of an existing or proposed metro station and where the character of the area would not be affected adversely by the scale, mass or bulk of a high density development.

### Reasoned Justification

Maintaining and raising development density in the most accessible locations can help achieve a more sustainable development pattern with better integration of transportation and land use planning. It helps support the vibrancy and vitality of centres, reduces the need to travel and provides the opportunity to provide different house types that are typically not available on greenfield sites. The policy seeks to take advantage of the opportunities presented by the development of the metro system. Major new developments should be development with higher density nodes that can support future high quality public transport systems.

High Density Development reduces the overall land take for development, reducing the need for greenfield development. It makes better use of existing utility and road infrastructure in existing urban areas and reduces the extent of new networks in urban expansion areas.

### **BE5 Tall Buildings (SP7)**

Tall buildings are supported in urban centres around metro stations where the character of the area would not be affected adversely by the scale, mass or bulk of a tall building. Tall Building should be of the highest architectural merit. The positioning of tall buildings should not impact on local or strategically important view corridors or sensitive locations such as historic buildings and conservation areas. Tall buildings should not have a detrimental impact on the surrounding area in terms of microclimate or telecommunications. They should be near high quality public transport with the car parking requirements of tall buildings being assessed considering this increased access to public transport. Tall Buildings should be supported by a visual impact assessment.

### Reasoned Justification

Whilst high density does not always equate to high rise, tall buildings can be used as part of a positive plan-led approach to promote regeneration or and intensification of urban centres, particularly to make optimal use of the capacity of sites well connected by public transport. They can also provide reference points and legibility and of course landmarks.

Tall buildings of high architectural merit, located in the right place can make a positive contribution to the townscape of Mauritius and it's global perception as a modern high-tech economy. Conversely, they can have a detrimental visual, environmental and even social impact if they are of poor design and are poorly located. Additional design guidelines are contained in Design Sheet on Tall Buildings published by the Ministry of Housing and Land Use Planning.

### Modification Justification

- Locational criteria made clearer with impact of building on the character of the area to be a consideration.
- Visual impact of building to be a key consideration.

#### 9.2.4. National Monuments and Conservation Areas

A key part of the townscape and landscape character of Mauritius are the buildings of special architectural, cultural and historic interest that have been identified either as individual buildings or as part of a collective area of merit in the form of a Conservation Area. A total of 190 sites are listed on the National Heritage Fund's List of National Heritage Sites. Nearly half are in Port Louis District with the distribution by district set out below.

- Port Louis – 88
- Plaines Wilhems – 19
- Black River – 8
- Flaq – 12
- Grand Port – 19
- Moka – 1
- Pamplemousses – 29
- Riviere Du Rempart – 6
- Savanne - 8

#### **BE6 National Monuments and Conservation Areas (ENV8)**

The quality and local distinctiveness of the historic urban and rural built environment shall be maintained and improved by:

- Protecting all National Monuments, their settings and historic landscapes against demolition and inappropriate alteration or development. There is a presumption in favour of the preservation of National Monuments.
- Proposals for external or internal alterations or additions to National Monuments should respect the integrity of the buildings or structures, and harmonise with their special architectural, cultural, or historic features and character.
- Encouraging conversion of appropriate redundant National Monuments to new uses that do not adversely affect their special architectural, cultural, or historic value and as a means of securing their economic viability.
- The setting of a National Monument is a material consideration in the determination of development proposals.

- Preserving and enhancing the character of conservations areas by new development respecting the scale, massing, architectural style and use of materials characterised in the conservation area.

In applying this policy, consideration should also be given to the provisions of SP14 and SP15, where relevant, when altering, adding to, or converting National Monuments.

### Reasoned Justification

National Heritage assets are identified and protected under the National Heritage Fund Act, 2003 under the Ministry of Arts and Culture with a remit for the National Heritage Fund “To identify, valorise and promote our National Heritage”. Before the setting up of the NHF, the heritage of Mauritius was managed under the Ancient Monuments Act in 1944, which was updated in 1985 through the National Monuments Acts.

The preparation of specific development guidance for National Monuments and Conservation Areas is fully supported. Mechanisms for the acquisition, management and maintenance of National Monuments should be explored though the use of existing statutory devices such as the National Environment Fund and the Community Development Fund.

### Modification Justification

- Policy moved to new section on Built Environment.
- New clause on design and development in conservation areas.

### 9.2.5. Designing out Crime

Places that feel naturally secure and safe are more socially and economically attractive than those that feel unsafe. It is important that safety and security of users and premises are considered at the design stage utilising design features that take advantage of natural surveillance and creating defensible space through the orientation and layout of buildings.

#### **BE7 Designing out Crime (*New Policy*)**

Development should promote a sense of security without being overbearing or intimidating through the integration at the design stage of the following measures:

- Paths and routes should be legible and well maintained with adequate lighting at night.

- There should be a clear distinction between private and public space with natural surveillance of public spaces from the buildings.
- Places should be designed to create a sense of ownership over communal spaces.
- Developments should be designed to minimise on-going management and future maintenance costs of the safety and security measures proposed.

### Reasoned Justification

Measures to design out crime should be integral to development proposals and considered early in the design process, considering the principles contained in international best practice and guidance such as the UK's "Secured by Design Scheme"<sup>5</sup>. This will ensure development proposals provide adequate protection, do not compromise good design, do not shift vulnerabilities elsewhere, and are cost-effective. New development should be located and designed in such a way as to deter antisocial or criminal behaviour. Poorly designed buildings and surroundings can create feelings of hostility, anonymity and alienation which can have significant social, economic, and environmental costs leading to environments that are unwelcoming.

### New Policy Justification

- To ensure that safety and security are designed in at the outset to avoid the need for retrofitting of inappropriate security measures or need for expensive on-going management and maintenance.

## 9.3. Urban Green Network

The Urban Green Network plays an important ecological, natural systems, recreational and visual amenity role in the urban area. It plays an important role in the character of the urban area and overall quality of life of residents. Preservation of the green network and utilisation, where appropriate, for recreation is to be encouraged with the importance of continuity of links emphasised.

### **BE8 Open Spaces (ENV10)**

Major developments will be expected to provide open space for passive and active recreation in accordance with the Planning Policy Guidance. Natural features such as riverlets and

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<sup>5</sup> For further details see <http://www.securedbydesign.com/>

feeders should be integrated into open space networks across the conurbation and rural towns and villages. There is a presumption against the loss of existing open space.

Outline Planning Schemes should consider introducing policies to expand provision of green space and usable public open space in new developments and morcellements and avoiding over intensification through redevelopment or development in gardens where this can be locally justified.

### Reasoned Justification

Open spaces are important for the health and wellbeing of residents. They are particularly important for those who live in apartments and have no access to a garden. Open spaces have proven social, environmental, and economic benefits. They enable greater community interaction and make a neighbourhood more liveable, creating a better cultural and physical environment. They provide space for flora and fauna, providing space for biodiversity. They can also contribute to storm water management and climate change mitigation and reduce the heat island effect in urban settings. They can host events and activities, contributing to the local economy whilst also increasing values of properties near open spaces and act as a catalyst for more development reinvestment in the neighbourhood. The value of open space extends beyond residential areas, with commercial areas and healthcare settings realising the positive value of connecting to nature for wellbeing and recovery from illness.

Provisions for open space will be in accordance with guidelines set out in revised Outline Planning Schemes, updated Policy and Planning Guidance and any are specific requirements set out in approved Action Area Plans. Particular attention will be paid to the provision and maintenance of such areas through the application of implementation mechanisms. The potential use of funding through schemes such as the National Environment Fund and Community Development fund should be explored.

### Modification Justification

- Policy should apply to all major developments, not just residential.
- Integration of natural features into open space network encouraged.
- Protection of existing open spaces included.
- Contributes to Climate Change mitigation.

### **BE10 Urban Nature Conservation (ENV9)**

To identify, protect and nurture in all settlements, areas of open space for gardens, informal landscaped areas, new tree planting areas, and spaces beside watercourses.

#### **Reasoned Justification**

Within open spaces and landscape corridors, consideration should be taken as to how those spaces can contribute to nature conservation. Increasing wildlife habitats in urban areas is good for both humans and wildlife. Schemes that introduce native or naturalised planting is encouraged as are tree planting trees which can provide shade, habitats, reduce air pollution and contribute to the wider challenge of climate change.

The management and maintenance of nature conservation sites is important to prevent their degradation by invasive species or inappropriate human activities. The involvement of the public and private sectors and partnering arrangements will be encouraged in the implementation of such schemes. The utilisation of Corporate Responsibility Funds from private organisations and Government funding through schemes such as the National Environment Fund and Community Development Fund should be explored.

#### **Modification Justification**

- Policy updated to emphasise need to protect and nurture nature conservation assets.

## **9.4. Air Quality and Noise Pollution**

The quality and perception of an environment can be greatly damaged by air and noise pollution.

### **9.4.1. Air Quality**

Poor air quality in urban areas can severely impact on the liveability of a place and have long term impacts on people health. It is one of the key drivers for Governments and citizens to address carbon based pollution with subsequent knock on implications for climate change measures. Air pollution can result from a number of sources, with vehicle based pollution being particularly evident in the denser urban areas. Air Quality is not systematically monitored in Mauritius at present. Air quality monitoring provides useful data on traffic management issues and impacts arising from bad neighbour uses in urban areas.

### **BE11 Air Quality (*New Policy*)**

To improve the local air quality of town centres and main roads to create a more liveable environment through the following measures:

- Reducing traffic and traffic congestion through better traffic management
- Supporting the transition to low emission vehicles.
- Utilising landscaping and buffers to mitigate impacts on local air quality.

#### **Reasoned Justification**

Air quality is one of the key measures of liveable places. Failure to control air quality can lead to long term health issues, particularly amongst the young and elderly. Introducing a policy on Air Quality highlights its importance in creating liveable communities and the wider perception of place for visitors and investors. It is anticipated that clean air will become a key factor in lifestyle choices, and it is therefore important that Mauritius is seen to be actively addressing the issue.

#### **9.4.2. Noise Pollution**

Noise pollution can impact on people's homes, workplace, and open space. It can have an adverse impact on education premises and health settings whilst also undermining rural tranquillity and the enjoyment of the natural environment.

### **BE12 Noise Pollution and Soundscapes (*New Policy*)**

To reduce noise pollution and improve the soundscape of Mauritius through the following measures:

- Mitigating and minimising as far as practicable the existing and potential adverse impacts of noise on, from, within, as result of, or in the vicinity of new development.
- Separating new noise sensitive development from major noise sources, utilising distance, screening, and layout measures.
- Promoting new technologies and improved practices to reduce noise at source, and on the transmission path from source to receiver.
- Promoting the designation of quiet areas and spaces of relative tranquillity.



### Reasoned Justification

Noise management and the achievement of a healthy acoustic environment is an important contributor to the promotion of quality of life. Developments that are adversely impacted by noise pollution will not be desirable and will therefore not endure over the long term, resulting in a failure to achieve sustainable development. Sensitive uses such as residential, healthcare settings and education are more sensitive to noise than other urban uses, particularly at night-time when ambient noise levels are lower. Not all areas will have the same acoustic environment and not all uses will have the same acoustic sensitivities to noise. The provision should extend to nature conservation areas where important nature conservation sites containing noise-sensitive wildlife species. The introduction of some sounds can help mitigate other noise pollution, replacing one noise with a more pleasant noise. An example of this is the installation of water features which can replace the sound of nearby traffic.

### New Policy Justification

- There is increasing international recognition on the link between air quality and public health and quality of life. As a modern high income country, it is important that Mauritius takes steps to enhance air quality in its urban and rural areas.
- Noise pollution is also an increasing issue in many urban areas where traffic and construction/industrial noise can have a detrimental impact on health and quality of life.

## 10. Transport and Connectivity

### 10.1. Overview/Context

This section provides the policy framework for all modes of travel and connectivity in Mauritius. The delivery of a sustainable transport system is critical to achieving the core objectives of the Strategy. A system that delivers easy, safe and convenient access to employment, leisure and services in a way that balances economic, social and environmental objectives is required. The delivery and proposed expansion of Metro Express and the feeder services alongside wider investment in bus-based transport are a key structural element in the spatial strategy.

As an island, connections to the wider region and world are critical with the need to implement long term strategic plans for both the Port and Airport supported by the National Land Development Strategy.

### 10.2. Transport Strategy

To help meet Mauritius's contribution to reductions in greenhouse gases, to reduce travel time and costs and consumption of non-renewable resources, and to reduce local pollution related to transport and its adverse health effects.

#### **T1 Transport Strategy (T1)**

Reduce the need to travel and minimise the distance people need to travel – especially by car. Presumption in favour of developments that contribute to clustering, intensification, and mixed uses. Presumption in favour of developments that reduce distances and journey times between major trip generators and attractors.

#### **Reasoned Justification**

The Transport Strategy policy is required to help meet Mauritius's contribution to reductions in greenhouse gases. It also aims to reduce travel time and costs and consumption of non-renewable resources, to help achieve the benefits of transport more cost effectively and to reduce local pollution related to transport and its adverse health effects. To help provide appropriate and equitable accessibility for all communities and move towards equitable travel times by public and private transport within the Conurbation.

### Modification justification

- Rewording and sharper focus. Previous policy tactics were oriented toward a switch to public transport rather than reducing trip length per se. Mode shift is now dealt with under T2.
- Inclusion of guidance on location of trip generators and attractors, rights of way and on facilities in residential developments.
- Inclusion of support for home working (in light of Covid-19 experience), internet shopping and associated logistics.
- Guidance on deployment of new strategic highway links.
- Inclusion of the need for a holistic approach and multidisciplinary team working.

### **T2 Public Transport and Feeder Network – Spatial Accessibility (*T2 and T3*)**

Promote mode shift from private car – to walk, cycle and to public transport. Promote public transport projects that will help equalise travel times by private and public transport within the Conurbation.

Promote park and ride projects that will encourage mode shift within urban areas.

Identify and safeguard rights of way for public transport developments and feeder networks, including space for and implementation of widespread public transport priorities. Identify and safeguard rights of way for short, medium term and long-term pedestrian and cycle network developments.

Presumption in favour of transit-oriented developments that contribute to clustering and intensification near public transport stations, hubs, termini and stops in particular, and within public transport catchments in general.

Promote, and presume in favour of, transit oriented developments that contribute to clustering and intensification near public transport stations, hubs, termini and stops in particular, and within public transport catchments in general.

Support for the planned expansion of Metro Express to Curepipe with potential further expansion to Cote D'Or/St. Pierre via Ebene and Reduit to the east and northern extension to Terre Rouge/Pamplemousses.

### Reasoned justification

- To further help meet Mauritius's contribution to reductions in greenhouse gases.
- To help make more efficient use of road space.
- To reduce travel costs and consumption of non-renewable resources.
- To further help reduce local pollution related to transport and its adverse health effects.
- To help provide appropriate and equitable accessibility for all communities and move towards equitable travel times by public and private transport within the Conurbation.
- To reserve space and rights of way needed to enable and sustain an intensive programme of public transport improvements – including extensive bus priorities - delivering much increased journey speeds and enhanced reliability.
- To help expand public transport catchment areas by reserving space and rights of way for public transport, cycleway and pedestrian feeder networks to main line public transport routes.
- To promote shift to active modes by reserving space and rights of way for an extensive network of pedestrian and cycle routes.
- To reserve space needed for park and ride projects – in support of mode shift to bus or Metro.
- To support and develop public transport patronage, policies for land use treatment in and around public transport hubs, stations, stops and routes are introduced. Transit oriented development, intensification and clustering are specifically included as policy measures.
- This policy and safeguarding lays the ground for the implementation of sustainable networks (T5) and effective traffic and environmental management schemes (T4); and further supports Policy T1.

### Modification justification

- Previous NSD policies T2 and T3 have been combined into an upgraded T2 dealing with mode shift in general, not just public transport. So, the policy is extended to include walking and cycling.
- New target for public transport specified - the achievement of similar travel times for private and public transport users in the Conurbation. So, the policy continues to support the implementation of bus priorities but with greater emphasis on the widespread extent required.
- Previous policies were focussed on delivering an LRT system. This has been successfully achieved and now needs to be fully exploited as the backbone of the public transport system in the Conurbation. The new Metro system needs to be supported by feeder networks (bus, walk, cycle) and the bus feeders need to be supported by bus priority

measures – as a priority. Innovative measures, such as queue relocation, are needed where space is limited.

- Encouragement for more appropriate bus types is now dealt with in T5 as part of providing safe spatial and temporal accessibility.

### 10.3. Parking and Demand Management

To help control and minimise the adverse effects of ever increasing traffic volumes. Together with other policies, to use parking controls to help reallocate town centre road space to urban regeneration uses.

#### **T3 Parking and Demand management in the Conurbation (T4)**

Control, price and enforce parking and manage parking supply in the Conurbation in a way that will:

- encourage traffic peak spreading – in particular in and out of Port Louis;
- support and encourage mode shift and sustainable travel; and
- support Urban Regeneration policies in the Conurbation town centres, including reallocation of roadway and parking spaces to urban regeneration uses.

Hypothecation of profits and deployment of profits in support urban regeneration transport projects – walk, cycle, public transport and associated public open space.

#### **Reasoned Justification**

- To help reduce persistent traffic congestion into and out of Port Louis.
- To help reduce associated pollutants, greenhouse gases, road user costs and consumption of non-renewable resources.
- To manage, price and control car parking throughout the Conurbation in a way that will assist travel demand management in and out of Port Louis, and other town centres as congestion becomes problematic.
- To help and support Urban Regeneration policies in the Conurbation town centres.
- To help and encourage mode shift to public transport in support of Policy T2, and in further support of Policy T1.

### Modification Justification

- Previous parking policy (NDS 2003 T4) was mainly targeted at supporting the Metro project and urban renaissance zones. The revised policy uses parking supply, price, control and enforcement to help manage demand, specifically targeting traffic peak spreading.
- The policy extends support for mode shift to public transport to include other sustainable modes (walk and cycle).
- NDS 2003 recognised the potential for demand management in the Conurbation. Parking policy is now specifically deployed as a means of demand management – with the aims of peak spreading and mode shift. This will work together with T1 (reducing the need to travel, and reducing distance travelled).
- The previous policy stated a preference for on-site parking. However private off-street parking cannot be easily controlled, priced, or enforced - whereas on-street or public off-street parking can. Therefore, the new policy drops the reference to on-site parking.
- The previous policy medium term plan was to redevelop town centre parking for commercial/residential and other appropriate town centre uses. This policy action is retained, but for immediate application, and works in combination with policy T4. Policy T4 enables restructuring of road network hierarchies – with a view to reallocating road and parking space to urban regeneration uses.
- The previous policy aimed to harmonise parking standards and approach between Conurbation municipalities and avoid competition that may ultimately disbenefit one or all. The new policy proposes a means to achieve an overarching approach whilst maintaining stakeholder inputs.
- Hence the Conurbation wide parking strategy hypothecates the profits from parking charges and fines. These profits are redistributed to support urban regeneration transport projects.

#### 10.3.1. Traffic and Environmental Management

To help reduce or eliminate the adverse impacts of transport in the community better traffic management is required. This will also support Urban Regeneration, through safer and better streets whilst maintaining safe public transport penetration into traffic free areas for community convenience. The creation of pleasant pedestrian networks that are as traffic free as feasible whilst having regard to security concerns. As cycling becomes more popular in Mauritius, the creation of pleasant cycle networks that are as traffic free as feasible, whilst having regard to security concerns, is supported.

#### **T4 Traffic and Environmental Management (*T5A and T5B*)**

Include Traffic and Environmental Management Schemes (TEMS) in Action Area Plans, as a part of updating Local Plans, that emphasise:

- *better streets*, traffic calming and low traffic neighbourhoods;
- an enhanced pedestrian environment and networks;
- public open space;
- access to public transport;
- bus priorities;
- mobility access;
- parking schemes and controls;
- lorry routes, access and loading restrictions;
- cycling facilities or reservation of space for future facilities;
- redefinition of road hierarchies in and around town centres, in a way that releases and repurposes town centre roads and parking spaces for urban regeneration uses;
- new roads if required to facilitate any of the above; and
- road safety measures.

#### Reasoned Justification

- To help reduce, or ideally completely eliminate, the adverse impacts of traffic in the community.
- To support urban regeneration, safer and better streets whilst maintaining safe public transport penetration into traffic free areas, for community convenience.
- To promote the creation of pleasant pedestrian networks, as traffic free as feasible, whilst having regard to security concerns.
- As cycling becomes more popular in Mauritius, to promote the creation of pleasant cycle networks that are as traffic free as feasible, whilst having regard to security concerns.

#### Modification Justification

- Previously split into two policies T5A Traffic Management Outside Port Louis and T5B Traffic Management in Port Louis. Now combined into one policy T4. Policy extended to explicitly use traffic management as a tool for local environmental improvements – reducing the adverse effects of traffic and helping create people friendly spaces. This creates opportunities for pedestrianisation, better streets and low traffic neighbourhoods.
- The revised policy clarifies the scope of TEMS.

- The revised policy, explicitly includes review and reform of road hierarchy in town centres, and this creates opportunities for reallocation of road space to the public realm. In support of urban regeneration, integral environmental improvements become possible and urban design opportunities open up. This works in combination with T3 Parking.
- The completion of the Inner Ring Road (see T6 Justifications for more details) will create enormous opportunities for TEMS in Port Louis and in particular along the waterfront.

## 10.4. Transport and Land Use Planning Integration

The integration of Transport and Land Use Planning is critical to achieve the sustainable development goals. Through the integration of the two disciplines, the need to travel can be reduced and the modal choice of those needing to make journeys can be greatly increased. These two factors have environmental, social, and economic benefits for individuals and society.

### **T5 Safe spatial and temporal accessibility, new/improved and sustainable transport networks, opening up new parcels for development (T6)**

Plan and implement new, improved, sustainable and safe Integrated Transport Networks and infrastructure, on the basis of accessibility related to land use trip purpose and particularly in support of policies SP18 and T1 to T4, and which:

- dramatically improve safe provision for pedestrians, by direct and non-circuitous movements in the Conurbation, rural settlements and in tourist areas throughout the island;
- enhance sensitive public access to areas of natural beauty and recreation;
- develop cycle networks;
- support economic and social development - in particular in Urban Regeneration Zones in line with policy T4, and in Rural Regeneration Zones;
- further develop and enhance public transport networks island wide, encouraging mode shift and in support of policy T2;
- equalise public and private transport travel times in the Conurbation by reducing public transport journey times (in support of SP18). At the same time, relieve severe and prolonged congestion on the Conurbation highway network through demand management (T3) and through focused highway capacity enhancements that include bus priority measures (such as segregated busways or bus lanes and *bus advance*



associated with queue relocation) in support of T2 and working in synchronisation with T3 and T4;

- *open-up* land parcels in rural areas for new developments – in particular agri-tech, enhancing marketing and food storage capacity, and in support of Rural Regeneration;
- enhance freight and logistics networks in support of policy T1 (reducing the need to travel);
- maintain strategic access to the port and airport and between major centres of population and economic activity;
- respect, enhance and improve all environments adjacent to transport network infrastructure.

Encourage extension of public transport operating times thereby improving community accessibility throughout the day and evening. Enhance public transport penetration in rural areas – particularly serving the hinterland of Rural Regeneration Zones – in support of SP18 (equitable accessibility for all communities).

Encourage better bus layout designs – to cater for more types of potential user. Specifically cater for passengers with mobility issues, with baggage, passengers with young children and cyclists – in support of SP18.

### Reasoned Justification

To provide appropriate, equitable and safe accessibility and mobility for all communities, in support of SP18 and T1, T2, T3, and T4.

### Modification Justification

- This policy revises the previous 'T6 New and Improved Highways' and widens the policy to include all transport modes, taking an integrated approach. In particular, the revised policy emphasises the need for much improved pedestrian networks.
- The need for strategic transport networks (all modes) to support rural and urban regeneration is also emphasised.
- The purpose of transport networks, and in particular the highway network, is clarified and related to land use, trip purpose and in particular the need to serve transport policies SP18 and T1 to T4.
- Accessibility is related to land use and overarching policy. For example land uses and policies oriented to preservation and protection can either constrain or sensitively permit vehicular access.

- Temporal accessibility is included in the revised T5. Public transport users are severely limited by the focus of bus operations in the Conurbation on the peak periods. Bus timetables need to extend throughout the day and into the evening – particularly for the benefit of citizens without permanent access to a car.
- The revised policy includes encouragement for better layout design of buses – in support of SP18 ‘appropriate and equitable access for all communities’. The aim is to improve time-space accessibility profiles, and hence quality of life, for persons otherwise disadvantaged.
- As and when cycling begins to be taken up by Mauritians, buses can be adapted to easily carry bicycles, externally or internally. Equally the Metro can be adapted to carry bicycles internally.
- The revised policy includes safety. Transport network safety in general, and pedestrian safety in particular, may seem unrelated to land use – but dangerous and stressful access is a spatial issue and can reduce meaningful accessibility. It is not considered acceptable for the day to day movements of pedestrians, or any transport network users, to be dangerous. So safety has been introduced as a clarified requirement for all transport networks in the revised policy.
- Related to safety is severance. The highway network can create severance between communities and between communities and facilities – resulting in reduced accessibility, reduced ease of access and decreased interaction between severed areas. Without remedial action, this can result in increased danger to pedestrians – those still trying to interact between the severed spaces. In an extreme case of highway severance, accessibility by active modes can be reduced by up to 50%, and higher if access to public transport is cut too. This has a real impact on people’s lives in terms of access to shops, schools, health care and relatives. This is one of the reasons why emphasis is placed on *integrated* transport networks and the need to address all together – all modes working in sync.
- In short, the revised T5 reorientates and considerably expands the previous policy, and now includes safety issues.
- The help effectively implement this policy, one of the policy actions included in the NDS Action Plan considers a reorientation and extension of RDA’s existing remit and capability to include planning, design, implementation and maintenance of pedestrian, cycle and highway based public transport networks – in cooperation with Municipalities.

### 10.4.1. Strategic Land Transport Infrastructure

In support of strategic land use planning vision and policies, a series of strategic land transport infrastructure projects have been identified. These include road, Metro and Bus projects that aim to enhance connectivity to key employment hubs and destinations from all parts of Mauritius.

#### **T6 Strategic Land Transport Infrastructure**

In support of rural regeneration in the east and north-east, implement:

- East Coast Trunk Route (M4);
- East west link (M5);
- M1 – M5 link road in the medium term.

In support of regeneration in Port Louis:

- completion of the Inner Road and removal of heavy Goods Vehicles from World Heritage Site buffer zone with the introduction of an Urban Boulevard along the Port Louis Waterfront between the Victoria Square and Immigration Square.

Continuing support for the Metro and for extension to:

- Curepipe;
- with potential further extension to:
  - Cote D’Or/St. Pierre via Ebene and Reduit to the east;
  - potential further extension to Terre Rouge/Pamplemousses to the north; and
  - potential further extension to the Cascavelle area to the west.

Continued support for the enhancement of strategic Bus Routes connecting rural residents to their Primary Rural Centre and the Conurbations Metro System.

#### **Reasoned Justification**

To help achieve the objectives of transport policies T1 to T5. In support of rural and urban regeneration. Where appropriate, to help facilitate and consolidate Mauritius’s regional and international identity and vision. The East-West M5 will, in combination with the East Coast Trunk Route (M4), be effective in linking Rural Regeneration areas in the east and north east to the Conurbation. This improved linkage between the Conurbation, the East and the North East and will increase economic and social interaction between all three areas to their mutual benefit. It is envisaged that this increased interaction will help kick-start rural enterprise and the regeneration process. There is a likelihood that some settlements in the east/north-east could become dormitory like towns serving the Conurbation. However, together with other

rural regeneration measures, it is envisaged that this effect will be minimised. Together with the supporting measures, the proposals will be of overall net benefit for rural regeneration.

The proposed M1 – M5 link would create much improved access from the North East to the south and airport and much improved access from airport to tourism zones in the North East. This would help rural regeneration in the North East by creating greater accessibility and connectivity to key markets. The route is a less invasive and more environmentally friendly alternative than the South Eastern Highway previously included in NDS 2003 and subsequently cancelled. In addition, the route eases potential future congestion at the M3-M5 junction and together with other proposed routes, has all the benefits of the Strategic Eastern Highway proposed in NDS 2003, delivered at far less economic and environmental cost.

The revised policy includes further expansion of the Metro in support of urban regeneration, mode shift and the sustainable servicing of Conurbation growth areas. By creating a larger network more residential areas and capturing existing and planned employment hubs will be served by the Metro Express Network. This will further support modal shift and underpin the strong connection between land use and transportation planning.

Policy actions, outlined in the NLDS Action Plan, include actions and recommendations regarding how best to implement some of the T6 Strategic Land Transport Infrastructure. These actions include:

- Traffic and Environmental Management Schemes (TEMS) to evaluate how best to take advantage of the completion of the Inner Ring Road and urban design opportunities along the Waterfront and environs in Port Louis. For example, completion of the Inner Ring Road will facilitate the synonymous downgrading of the M1/M2 in Port Louis. This will create opportunities for environmental improvements and urban realm developments along the Waterfront and its hinterland commensurate Mauritius's vision as a regional hub and will enhance Port Louis's international status. In particular, the world heritage site at Aapravasi Ghat can be then set in a more appropriate context and be better exploited;
- TEMS to evaluate how best to extend the Metro to Cascavelle, possibly through Quatre Borne or Vacoas and, at the same time, how to bring about significant environmental and urban realm improvements for Quatre Borne or Vacoas town centre and environs;
- In association with the introduction of the Metro to each conurbation town centre, TEMS aimed at creating opportunities for regeneration projects and urban realm improvements;

## 6-1 Draft National Land Development Strategy

- Area wide Land Use and Transport Integration (LUTI) Study to investigate integration of transport and land use, policies and implementation programmes in the vicinity of Cote D’Or, Moka, Ebene, M1, M3, M5, M1-M5 Link and B6; and
- Although not included as strategic transport network infrastructure, route studies to investigate the implementation of sensitively designed coastal routes in support of local recreation, international tourism and tourism growth areas.

### Revised Policy Justification

- This policy continues to include support the East Coast Trunk Route (M4).
- The policy is extended to include other highway links that support Rural Regeneration:
- A new East-West link (M5); and
- An associated M1 – M5 link.

## 6-1 Draft National Land Development Strategy

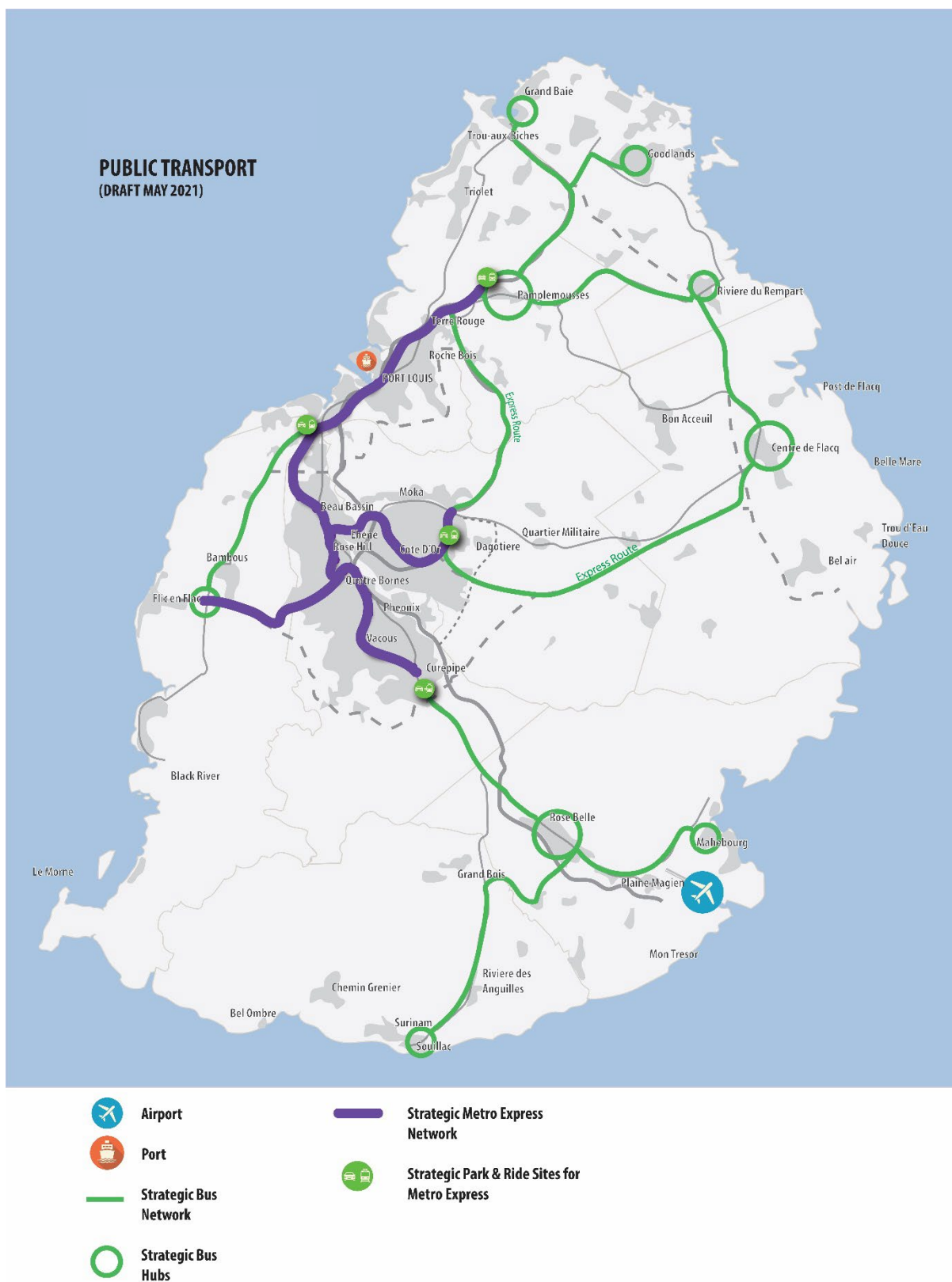


FIGURE 24 STRATEGIC PUBLIC TRANSPORT NETWORK

#### 10.4.2. Location of New Developments

To help locate new developments within public transport catchment areas, and in particular to identify the types of development appropriate for location on the strategic highway network.

##### **T7 Location of New Developments (*New Policy*)**

Locate new developments within public transport catchment areas and according to the principles of policies T1 and T2, and that are not contradictory to, nor undermine, policies SP4 and T3 to T6, excepting the following types of development, which may be located on sites at or near high-capacity junctions well served by the strategic highway network:

- developments that generate large numbers of heavy good vehicles.
- developments that enhance logistics networks and storage, including storage and distribution of agricultural produce and value-added products.
- developments needed for national security (including food security, emergencies preparedness, disaster mitigation and appropriate military uses).
- developments of national significance and that generate large volumes of vehicular traffic.
- Developments required for the storage and distribution of hazardous substances.
- developments in or near to and serving Rural Regeneration Zones, or near country towns adjacent to and serving Rural Regeneration Zones; and
- appropriate developments in or near to and serving Tourism Zones.

##### Reasoned Justification

To ensure location of new developments within public transport catchment areas, and in particular to identify the types of development appropriate for location on the strategic highway network.

This new policy focusses this issue into a single policy and sets clear boundaries with the aim to locate almost all development within the catchment of public transport. The policy promotes a holistic approach to the planning for major new developments with transport being a key consideration. Multidisciplinary team working is encouraged with the transportation impacts of major new developments considered at the earliest stage practical.

### **T8 Development Control and Developer Contributions (*New Policy*)**

Where developments will have significant transport implications, as determined by criteria specified in current PPGs, Transport Assessments (TAs) must be prepared and submitted alongside the relevant planning applications for development.

TAs must demonstrate how proposed developments make provisions for supporting Transport Measures that meet the requirements of policies SP18 and T1 to T9. Transport Measures will consist of transport services and/or transport infrastructure.

Where impact on the highway network is greater than that specified in current PPGs:

- the TA must, in addition, indicate how road traffic generated by and attracted to the development will be accommodated on the highway network.
- the criteria for assessing adequate provision of Transport Measures will be *no net detriment* to users of the affected highway network. *No net detriment* to users must be demonstrated over a forecast period or periods (a) as specified in current PPGs, or (b) in exceptional circumstances, as jointly agreed by the Ministry of Land Transport and Light Rail and the Ministry of Housing and Land Use Planning (the “Assessment Period”).
- the TA must specify Transport Measures that ensure *no net detriment* to road network users, with and without the development, over the Assessment Period.
- the TA must indicate the financial value of the proposed Transport Measures and planning consent will be conditional on independent verification of this value and receipt of funds by the authority, or authorities, responsible for the highways affected with a view to that authority, or those authorities, implementing the required Transport Measures.
- the TA must demonstrate the feasibility of implementing the required Transport Measures, in particular where additional land is required and where ownership issues may need resolution, or where utility diversions may be needed. Planning consent will be conditional on resolution of land acquisition requirements and resolution of utility diversion requirements.

Planning consent will be refused if a TA is not of an acceptable international standard – as determined by the Ministry of Land Transport and Light Rail and the Ministry of Housing and Land Use Planning. Consent will be refused if either Ministry finds the TA not to be of international standard.

#### Reasoned Justification

The policy seeks to strengthen development control and enforcement of Transport Assessment preparation and introduce a clear *no net detriment* principle in the delivery of major



development projects. It also seeks to ensure that developments meet the requirements of policies SP18 and T1 to T9 and to encourage the establishment of a mechanism whereby consent for developments that impact on the transport network include developer contributions.

For Transport Assessments to be effective they should be completed to a satisfactory international standard. Training of sufficient consultant, Government staff is encouraged to ensure that there is sufficient capability and capacity in both the production, review and evaluation of Transport Assessments. Resource and capability is also required to enforce consent conditions and successfully manage and deal with appeals.

The Government's PPG's and current Traffic Impact Analysis (TIA) Guidelines should be upgraded to include all modes of transport and including guidance on the application of Policies SP18 and T1 to T7.

## 10.5. Electric Vehicles

It is anticipated that in line with other developed countries and to meet climate change commitments, Mauritius will see a major increase in the number of electric vehicles on the road over the plan period. With range not an issue for journeys in Mauritius, the country is well placed to adapt to electric vehicle uses. The bigger challenge is to ensure sufficient capacity in electricity supply and availability of charging stations.

### **T8 Migration to electric vehicles (*New Policy*)**

Install electric car charging points in new developments, and when there is a change of use, in accordance with standards defined and guidance given in relevant PPGs.

Optionally, install on-grid and/or off-grid sustainable energy charging and storage systems for electric vehicle fleets or part fleets in accordance with guidance in relevant PPGs.

PPGs should be updated to:

- PPGs to include guidance and standards for the provision of electric vehicle charging points in new developments, for change of use and guidance for provision in existing developments.
- PPGs to include guidance on provision of on-grid and/or off-grid sustainable energy charging and storage systems for electric vehicle fleets (normally bus operators and commercial vehicle fleet operators).

### Reasoned Justification

There is anticipated to be widespread migration to electric vehicles over the NLDS period to 2040. New PPGs and development control procedures will be needed to help ensure a successful transition, with charging points being a requirement of most new developments. This will require an holistic approach and multidisciplinary team working in the design of dwellings, commercial uses and car parks to enable effective and efficient charging to take place.

## 10.6. Ports

The Mauritius Ports Authority (MPA) operates the port which lies within the city limits of Port Louis. Port Louis being the sole gateway of the country handles around 99% of the total volume of the external trade and contributes about 2% of the GDP. As such, ports play a major role in facilitating economic growth.

Despite the economic crises in the Euro-Zone and slower growth in emerging markets, the Port Trade Performance for year 2018 has remained buoyant with an expansion of 5.5% due to new records in transshipment and bunkering activities. The Total Cargo Traffic reached a new peak of 8,064,954 tonnes in year 2018, compared with 7,642,297 tonnes in 2017.

As per review of the Port Master Plan by consultant Royal Haskoning DHV, the report concluded that for the Port to be able to maintain and enhance its services, major upgrading works are required to the port infrastructure, internal road and amenities. It should be noted that the previous master plan was completed in early 2009 and the revised master plan focuses on likely development between 2015 and 2040.

The prescribed works were based on the projected increasing trade and for Port Louis port to be able to berth container vessels of more than 9,000 TEUs (Twenty-Foot Equivalent Unit) in the coming years and with regards to strong trade growth in the Western Indian Ocean and number of large developments at competing ports over the next 10-15 years.

In the latest Masterplan, the forecasts are also heavily related to an increasing need to upgrading the infrastructure within and outside the port area, with particular emphasis on the motorway corridors. Storage cargo outside the port area has the potential to improving port operations, attracting a wider customer base, allowing space for expansion and generate employment. The Jin Fei area, located at Riche Terre at 3km north of Port Louis has been designated for an extension of the port's free zone. A link road between Jin Fei and the port,

along with the input of the Road Development Authority, should avoid the congestion of the motorway, thereby reducing stress on the major transport corridor and economic growth around the Port Louis area.

Port operations should also be flexible and in line with the Ocean Economy Initiative set up by the Government, thereby ensuring an increased contribution by the maritime sector to the Mauritian economy. It should aim to be competitive in terms of port operations in anticipation of the trade growth in the Western Indian Ocean and large number of developments in competing ports over the next decade.

### **P1 Ports (P1)**

The integration of activities related to blue economy in Port development plans is encouraged. There is a need to integrate surface multimodal connections between port and adjoining areas including the urban terminals, Aapravasi Ghat and Les Salines area with a view of integration of the different activities.

#### **Reasoned Justification**

Mauritius is a tiny land mass surrounded by a vast maritime zone of 2.3 million square kilometres and an additional sea area of 396 000 square kilometres co-managed with Seychelles. As such, the blue economy of Mauritius represents an important untapped resource which has the potential for higher and faster GDP growth in the Indian Ocean region. In addition to trading opportunities, the blue economy offers environmental and social benefits which are yet to be exploited in Mauritius, particularly in terms of employment, research and development opportunities.

To cope with the anticipated growth and expansion, there is also a need to integrate surface multimodal connections between key areas such as the port, urban terminals, Aapravasi Ghat and Les Salines. Such framework also fits in well with the LRT plan and ultimately amplifies the impact of the different activities. For instance, Aapravasi Ghat as a world heritage site, the Urban Terminal as a tool for modern urban landscape regeneration, amongst others. With regards to Les Salines which has now been returned to MPA, the Port Master Plan, prepared in 2017 by Royal Haskoning DHV, makes recommendations for use as expanded terminals, tourist attractions, light industry, logistic centres amongst others and including support facilities.

### Modification Justification

- Greater emphasis on promoting the blue economy in Mauritius and mitigating the impacts of the port on neighbouring areas.
- Need to increase the contribution of the ocean economy to the Mauritius economy.
- Need to sustain industrial and commercial growth so as not to impede future developments.
- Need to take up on the key opportunity to modernise and interconnect adjoining key areas

### **P2 Ports and Environments (*Proposal P1*)**

A mobility study shall be commissioned to provide the multimodal mobility plans around the port and Port Louis waterfront including the urban terminals, Apravasi Ghat and Les Salines area with a view of integration of the different activities.

### Reasoned Justification

To further support Policy P1 and take up on the key opportunity to modernise and interconnect the adjoining key areas such as urban terminals, Apravasi Ghat and Les Salines, the need for a defined framework is identified.

Such framework should consider both the short term and long-term requirements for accessibility to the adjoining areas. It should further deal with the complexity of ensuring compatibility between the different activities and should be in line with the introduced LRT system.

### Modification Justification

- Promotion of a multimodal mobility study to examine operational issues and impact on sensitive environments, including Apravasi Ghat World Heritage Sites. The previous NDS classified this as a proposal rather than a policy.

## **10.7. Airports**

The SSR International Airport has currently 28 scheduled airlines serving more than 30 destinations. The passenger terminal currently handles an average of 1,640 passengers per

hour (both arrivals and departures) and has a capacity of 4.5 million passengers per year. The passenger traffic inclusive of transit has increased by nearly 31% since 2015 to reach 3.84 million in 2018 and as at today, the airport is found to be operating at 85% of its capacity and will attain 100% by 2023. Airports should be able to expand alongside growing tourism sector and to accommodate growth in numbers of passengers.

They also represent a gateway to economic growth and should be able to sustain commercial and industrial growth. In terms of performance, air cargo remains a very tough and competitive business. Changes in representations in main markets and review of the sales strategy saw an upsurge in production. High demand for perishables, pharmaceutical products and manufacturing goods contributed mainly to the growth. The air cargo volume recorded in year 2018 was of 62,000 tonnes, is expected to be around 68,000 tonnes in 2020 and will further grow to a forecasted amount of 100,000 tonnes by 2030.

Based on the current above-described situation which could potentially hinder economic growth, the Government adopted some strategic direction in line with the Vision 2030 and air transportation master plan to improve its global standard, safety for airside, the passenger handling capacity and air cargo volume which is essential for economic growth. To accommodate future such expansive developments, the current infrastructure will have to be upgraded, specially within the airport area, where all developments (aesthetic, drainage, utilities, lighting, roads) are regulated through the Airports of Mauritius Planning Policy document.

### **A1 Airports**

The Airport expansion zone around SSR International Airport shall be preserved for the provision of a second runway and surface strategic accesses provided on the eastern boundary of the runway.

#### **Reasoned Justification**

Airports (and ports) are national transport gateways to sustain future economic growth. To ensure its efficiency, the transport system in and out of the runways should not be a limiting agent. Given the long-term nature of the revised NLDS, it is paramount to ensure the presence of a planned expansion for long term airport growth.

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### Modification Justification

- The strategic access routes to the airport should be preserved in view of the expansion plans.
- Air traffic may require a future second runway and the land should be preserved.

## **11. Physical Infrastructure**

### **11.1. Overview/Context**

This section deals with the provision of a modern and efficient physical infrastructure network that will support economic growth, social wellbeing and help protect the environment. It recognises the importance of extending man-made systems where appropriate whilst maintaining and utilising natural systems where it is practical to do so.

### **11.2. Water Supply**

Mauritius is one of a few Sub-Saharan countries to enjoy good access to water resources. The island has an average rainfall precipitation of averaging 2000 mm annually. At the end of December 2019, approximately 99.5% of the population was connected to the potable water network.

The main source of potable water supply is from the groundwater (54%). The remaining 46% is derived from surface sources such as reservoirs, dams, river off-takes to enable it to meet the current population demands. The groundwater resources are from 5 main aquifers in Mauritius, representing around 429 boreholes whereby 133 for domestic (90%), 157 for irrigation (5%) and 139 for industrial (5%).

However, the island faces potential water shortages in the medium to long term because of increasing water demand exceeding the supply capacity, a situation impaired by a downward trend in mean annual rainfall. In addition, the fact that domestic and industrial sewage effluent is not adequately collected or treated, surface and groundwater resources are being polluted, including in the coastal zone (due to sea out-falls from the country's few sewerage treatment plants).

There is a considerable need to cope with a shift in water use with gradual conversion of agricultural land to other sectors, ideally through a regime which allows for a strategic use of available water resources in a way that best fits the economic and social needs of the country and ensures the best economic and social returns for the country.

Water collection and distribution should be able to address short, medium and long term water demand, in terms of mobilization of additional water resources to meet the sustained increase

in demand and the reduction of the Non-Revenue Water from the present level of around 50% to an acceptable level of around 20%.

### **WS1 Protection of Potential Dam Sites and Associated Catchment Areas (WS1)**

Land for dam sites should be identified in Outline Planning Schemes and protected from any development. The associated catchment areas should be identified and safeguarded against pollution, erosion, and deforestation.

The existing dam catchment areas should be protected from uses requiring nutrient rich fertilisers and harmful pesticides.

#### **Reasoned Justification**

The demand for water is projected to continue to increase in Mauritius and climate projections indicate reduced rainfall. To cope with the challenge, potential future deficits in water resources should be identified early and minimised. The associated catchments should be subject to strict guidelines and developments within them should be regulated. Prior implementation, potential developers should obtain an agreement with the Water Resources Unit so as to ensure the development does not pose a threat to the downstream water resources.

Healthy forest buffers significantly improve water quality, while enhancing groundwater recharge and also being important in hydrological cycles. On the other hand, the use of fertilisers and harmful pesticides, particularly at creeks, can significantly affect dam water quality.

#### **Modification Justification**

- Reference updated.
- Impact on water quality from fertilisers and pesticides noted.

### **WS2 Development Close to Boreholes (WS2)**

Development close to boreholes may be permitted subject to provision of a waterborne sewerage systems. Ground water quality monitoring to be implemented as part of major developments



### Reasoned Justification

There are five main aquifers in Mauritius that are harnessed to cater for water demand through 520 boreholes. However, the potential for further groundwater exploitation is becoming limited. Governments should assert themselves as guardians of the precious resource and it should be ensured that the planning guidelines set for residential and industrial developments within the vicinity of boreholes are strictly adhered to harness groundwater in a sustainable manner. Regular sampling and testing of both surface and groundwater is encouraged to safeguard freshwater resources against pollution. Hydrological studies which aim to improve groundwater potential is also encouraged.

### Modification Justification

- To prevent contamination from human settlements of underground aquifers.
- Allow developments only when they are connected to the sewage network and other measures are in place to avoid ground water pollution.

#### **WS3 Development above Aquifers (WS3)**

Extensive human settlements should be avoided on major aquifers except where waterborne sewerage systems are available and mitigation measures are implemented against sub-surface contamination. Existing Human settlements should be provided with waterborne sewerage systems. Industrial Activities should be prevented on areas overlying major aquifers.

### Reasoned Justification

If improperly constructed, used, and maintained, septic systems have the potential to be a significant source of groundwater contamination, particularly in extensive human settlements. In an era of continuous development, it is particularly important to mitigate the risk of groundwater contamination which can lead to waterborne disease outbreaks and other adverse health effects. The implementation of waterborne sewerage system helps safeguard the integrity of underlying aquifers although pollution risks are not eliminated. As such, the second measure is to ensure sufficient attention is paid to maintenance and rehabilitation. The third measure is to prevent industrial activities overlying major aquifers. These activities have the potential to lead to higher and more hazardous pollution loads.

### Modification Justification

- Policy updated in line with international best practice on developments above aquifers to enable appropriate development that safeguards the integrity of the aquifer.
- Need to cope with increasing development pressure while safeguarding aquifers.

## 11.3. Sewerage

The provision of adequate sewerage management is to improve public health and the environment. There is also a need to address arising environmental challenges related to economic growth, demographic growth, rapid changes to the utilization of water and land resources with the aim towards preserving the country's fragile environment.

### **ST1 Sewerage System (ST1)**

The provision of centralised sewerage systems should be accelerated in major settlement areas with an emphasis of reaching 100% coverage in 2040. Major Coastal settlements should be sewered as a matter of priority and the provision of sea water outfalls for disposal of treated water studied to mitigate nutrient blooms in lagoons.

### Reasoned Justification

The coverage of central water supply is close to 100% on the Island of Mauritius. The generation of wastewater is strictly related to the water produced and distributed through the water supply networks. Furthermore, the water consumption from industrial, commercial and institutional uses is bound to increase based on the increasing level of urban development. It is also important to mitigate threats to coastal ecosystems through discharge of untreated or insufficiently treated wastewater into the environment.

### Modification Justification

- Promotion of central sewerage systems in major settlements.
- To fast track coastal settlements which are fast growing such as west coast.  
Environment problems in lagoons of west coast due to nutrient infiltration

### **ST2 Sites for Sewage Treatment Works (ST2)**

New Centralised sewerage treatment facility should be identified to cover the west coast, the south and eastern area of Mauritius. Additional treatment facilities should be identified and

preserved in the north east part of Mauritius. Land should be preserved for extensions of the existing facilities at Saint Martin, Baie du Tombeau and Grand Baie.

### Reasoned Justification

Through the implementation of sewerage networks and centralised sewerage treatment facilities, the number of households still relying on on-site sanitation will be greatly reduced and the needs of future developments can be met. In addition, sites where it will be economically viable to construct sewage treatment facilities should be identified and safeguarded from development through buffer zones at an early stage. Although the Mauritius Wastewater Master Plan Study diagnoses that the existing treatment plants can cover the intended design periods up to the year 2033, it is highly recommended to preserve land for the extension of the existing facilities at St Martin, Baie du Tombeau and Grand Baie in the long term.

### Modification Justification

- More spatial specific guidance on sites for sewage treatment works based on stakeholder inputs.

### **ST3 Polluting Industries (ST4)**

All major polluting industries should be connected to a professionally designed and maintained sewerage system connected to a sewerage treatment plant.

### Reasoned Justification

Connection to a professionally designed and maintained sewerage system is important in ensuring that polluting industries do not cause undue harm to nearby habitats and downstream water networks and habitats. Proper control and treatment and waste enables the removal of harmful bacteria and the potential reuse of beneficial nutrients for agriculture.

### Modification Justification

- Reference to industrial waste processing policy removed as policy applies to all major polluting industries.

### **ST4 Septic Tank and Soakaways (ST5)**

In smaller settlements outside the conurbation and major settlements, and where centralised systems are not viable, the construction of septic tanks and soakaways need to be controlled to ensure they do not lead to pollution of property, watercourses and aquifers.

### Reasoned Justification

Septic systems are considered a potential source of groundwater contamination if improperly constructed, used and maintained. The provision of such facilities should ensure that wastewater is adequately treated and are in line with the soil conditions. In line with Policy WS3, on-site wastewater disposal is not recommended in extensive human settlements.

### Modification Justification

- Slight change in wording to emphasise the potential receptors of pollution from septic tanks and soakaways.

*Please note that the previous ST3 has been combined with policy I3.*

## 11.4. Drainage

Catchment areas for rivers in Mauritius are generally small. Only two are over 100km<sup>2</sup>, river gradients are steep and the courses are deep. However, over the last decade, flooding/water accumulation has become a national priority. In this respect, the Land Drainage Authority has been recently established by the Land Drainage Authority Act in 2017. The objective of this authority is to be responsible for:

1. The development and implementation of a land drainage master plan;
2. Coordinating the construction of drainage infrastructure by the local authorities, the NDU, the RDA and other relevant stakeholders; and
3. Ensuring that there is a routing and periodic upgrading and maintenance of the drainage infrastructure.

Per the Drainage Impact Assessment Guidelines, the effects of climate change are becoming more and more pronounced. Reference is also made to recent assessment carried out by the Ministry of Social Security, National Solidarity and Environment and Sustainable Development in relation to main causes of flooding, which revealed that flooding/water accumulation occurs as a result of high intensity rainfall events and a combination of the following factors which are inter alia:

- i) Changes brought by new development in term of sealing of ground and reduction in surface area for percolation and ground water infiltration;
- ii) Encroachment on floodplains of watercourses reducing carrying capacity of natural drains;
- iii) Construction along natural drainage paths, areas which are ex-backfilled wetlands and areas with high water table;

- iv) Hindrances to the performance of drainage systems like obstructions, siltation and encroachment by services amongst others, and
- v) Construction in low-lying areas without adequate drainage provisions

### **DR1 Design of Drainage System and Protected Watercourses (DR1 and DR2)**

All major developments should provide appropriate systems to ensure that they are adequately drained, that neighbouring developments are not adversely affected and the implications for the catchment area are considered in the planning of new schemes.

The provisions of the Rivers and Canals Act, 1863 prohibiting the construction of buildings within the buffer of rivers, canals, feeders and riverlets should be preserved.

#### **Reasoned Justification**

Through the identification of the impact of surface run-off from the catchment upstream as well as within the project, appropriate systems should be implemented to ensure that stormwater is managed and there is no negative impact on neighbouring developments.

In addition, special attention should be paid to developments along river courses, low-lying areas and depressions, so as to prevent the introduction of future high-risk areas. Local planning authorities should use defined Environmentally Sensitive Areas as basis for protecting developments and prevent loss of life.

#### **Modification Justification**

- Policies DR1 and DR2 combined and updated to reflect buffer restrictions on development for different types of protected waterway.

## **11.5. Solid Waste**

The Ministry of Environment, Solid Waste Management and Climate Change through the Solid Waste Management Division, is responsible for the protection of the environment and public health through a proper management of solid and hazardous waste.

Local Authorities are in charge of waste collection in both rural and urban areas. The collection is operated by private contractors, by the local authority itself or by a combination of both, based on specificity of the region and the cost efficiency of the service.

Collection routes and collection days are well defined, and schedules are adapted to avoid as much as possible any disturbance for the population. Some collectors have developed highly performing control systems with GPS tracking in order to follow-up on the quality of the service but also to monitor the fuel consumption. They have also developed continuous improvement systems in order to find solutions to issues limiting the sustainability and efficiency.

Other collection systems are organized for specific waste streams. Municipal/District Councils organize bulky waste collection in addition to similar initiatives at the national level.

There is no separation and collection of household hazardous waste.

Mauritius, with total population of around 1.3 million, generates about 1,488 tonnes of waste daily. In 2018, the total volume of wastes disposed at the Mare Chicose Landfill was 543,196 tonnes which is the sole landfill on the island. The waste generated and disposed in the landfill is on a rising trend.

A compost plant with a capacity of 300 tonnes of waste daily, set up by a private promoter, is also operational at La Chaumiere. An interim Storage Facility for Hazardous Wastes has also been constructed at La Chaumiere. Five transfer stations are available throughout the island. Waste collected by local authorities (except for Grand Port and Savanne District Councils) and other waste generators transit through these transfer stations where bigger trailers are filled to be sent for landfilling in Mare Chicose.

### **SW1 Sites for Landfill (SW2)**

The area around Mare Chicose Landfill should be preserved for future expansion of Mare Chicose Landfill and siting of leachate treatment facilities. a buffer zone of 1km around the expansion area shall be provided against human settlements.

### **Reasoned Justification**

In view of the saturation of the Mare Chicose Landfill and to prevent a major waste management crisis in Mauritius post-2019, the idea of raising the Mare Chicose Landfill to provide disposal capacity has been put forward. In view of future expansion, land around the landfill should be preserved and environmental monitoring should be ongoing to ensure that the natural environment remains protected.

### Modification Justification

- Government has been unable to secure other sites and local community opposition to landfills is strong. The village of Mare Chicose has been acquired and inhabitants relocated and compensated. The Policy shall aim at allowing future expansion of the landfill at Mare Chicose and allow a buffer for environmental reasons. Facilities for production and export of electricity generated from landfill gas are already in place at Mare Chicose.

## 11.6. Electricity

In the context of electricity supply, the Ministry of Energy and Public Utilities has as major challenge to ensure long term energy security by diversifying sources of electricity generation and cleaner energy. This can be achieved by developing an adequate and clean power generation capacity and by modernizing our electricity grid to ensure a reliable and secure electricity supply.

The Central Electricity Board is the sole electricity provider under the aegis of the Ministry of Energy and Public Utilities. It is responsible for the control and development of electricity supplies in Mauritius. The Utilities Regulatory Board is the utilities regulator.

Its main function is to prepare and carry out development schemes with the general object of promoting, coordinating, and improving the generation, transmission, distribution, and sale of electricity in Mauritius and build generating stations. It also collects license fees on behalf of the Mauritius Broadcasting Corporation.

As of June 2019, the CEB was producing around 40% of the country's total power requirements from its four thermal power stations and ten hydroelectric power stations. The IPPs are private electricity generators and produce electricity by burning bagasse, a by-product of sugarcane, in the crop season and coal during inter-crop season. During the former, less power is exported to the CEB's grid as some produced steam is sent to the nearby sugar factories for sugar production processes.

In 2018, around 79% of the electricity was generated from non-renewable sources, mainly coal and fuel oil while the remaining 21% were from renewable sources, mostly bagasse. The main energy source for electricity generation was coal (40%), followed by diesel and fuel oil (40%) and renewable sources (21%). In 2018, coal (52%) was the major fuel used to produce

electricity followed by fuel oil (29%) and bagasse (20%). Independent Power Producers produced around 57% of the total electricity. The peak power demand was 468 MW in 2016.

### **E1 Sites for New Power Plants (E1)**

Expansion areas around power plants shall be maintained free from developments. Existing power plants to be retrofitted to LNG or HFO as coal fired plant to be discontinued in the future. Such facilities to be planned with logistical facilities for transport of LNG or HFO. The 132 KV backbone to be expanded and provided with facilities for energy storage in line with the planned renewable production facilities.

#### **Reasoned Justification**

Electricity supply developments are leaning towards LNG or HFO and associated works such as tanks and interconnecting pipe network have already started. The gradual shift towards the use of cleaner energy technologies, such as Liquefied Natural Gas (LNG), amongst others is also in line with the latest strategy in the Renewable Energy Roadmap 2030. Planned developments should consider preliminary studies on the required logistical facilities to always ensure reliable and safe supply of electricity.

#### **Modification Justification**

- Policy updated to reflect latest strategy of Stakeholder.

### **E2 Service Corridors (E2)**

The need for service corridors and rights of way for power cable networks must be considered during the planning stage for major development projects.

#### **Reasoned Justification**

Corridors should be identified beforehand for the laying of underground cables and erection of overhead lines. High voltage lines will generally require wayleaves, while medium and low voltage lines laid across road reserves should respect setbacks and clearances.

## **11.7. Telecommunications**

ICT is a critical part of the infrastructure required to support a modern economy. As more jobs and services are reliant upon high level communications it is imperative that Mauritius provides the infrastructure required.



Mauritius is recognized as being a safe investment destination due to its long established tradition of socio-political stability, free market economy and good governance. Although the tourism and the financial sectors are well anchored in its traditional economic setup, the ICT sector— albeit a nascent industry a few years ago—has recently been propelled into its new role as the third pillar of the Mauritian economy. ICT has become one of the main pillars of the Mauritian economy. International ICT players, including Oracle, Microsoft, CISCO, HP, Orange, Accenture, Ceridian, KPMG, etc. are now present in Mauritius. These players operate a wide range of activities including software development, call centre operations, business process outsourcing, IT-enabled services, web-enabled services, sales, consultancy, multimedia development amongst others.

In the context of telecommunications, the Republic of Mauritius is currently served by a modern, digital telecommunications network, numerous mobile networks, and a limited number of other service providers. Many of the international companies have partnered with MT to increase internet penetration on the island.

### **TC1 ICT Infrastructure (*New Policy*)**

Work with providers and regulators to ensure the provision and delivery of the information and communications technology (ICT) infrastructure a modern and developing economy needs. Ensure adequate and suitable network connectivity across the island, including the provision of well located and well-designed telecommunications masts. Erection and operation of new mobile communication Towers shall be limited to areas outside of settlement boundaries. The telecommunication authority shall study the feasibility and make appropriate regulations to regulate deployment of telecommunication equipment on existing towers with different operators sharing existing towers on a priority basis. Ensure that networks are future proofed to enable the roll out of the latest technology through the preservation of sites and corridors.

### **Reasoned Justification**

It is recommended to partner up with service providers for continuous investments in the network infrastructure. Adequate broadband capacity, resilience, redundancy and route diversity of national and international connectivity will ensure the successful role of the telecommunications sector towards the ICT-driven economic growth.

### **New Policy Justification**

- There is a need to balance the needs of the economy and desire for connectivity with the visual impact of masts on the environment.
- Need to provide utility corridor space for broadband connectivity.

**TC2 Data Centres (*New Policy*)**

Ensure that when locating data centres suitable electrical power supply and security and resilience is available by locating them close to existing strategic electrical supply corridors.

**Reasoned Justification**

One of the main considerations in site selection for data centres is reliability and redundancy of power. Power supply also have direct cost implications which affect the economic viability of the projects. As such, data centres, setting up of IT infrastructure and electrical supply corridors should form part of an integrated and carefully planned framework.

**New Policy Justification**

- Data Centres are getting larger as demands increase for cloud storage and greater efficiencies are available with larger centres. The centres require a stable connection to electricity to be viable operations.

## 12. Appendix 1 – Conurbation Population 2000 – 2020

Districts	Cluster	Settlement/ VCA*	Population		Population	
			2000 Census	% of total	2020^	% of total
Port Louis	Greater Port Louis	Port Louis City	127,855	23	117,880	22
		North: Baie du Tombeau	12,011		15,301	
		Terre Rouge	8,736		11,210	
		Le Hochet	13,878		15,662	
		South: Pailles	9,954		9,895	
		Pointe aux Sables/La Tour Koenig	16,448		17,658	
	Sub Total	Greater Port Louis	188,882	34	187,606	34
Plaine Wilhems		Beau Bassin/ Rose Hill	103,872		103,452	
		Quatre Bornes	75,884		72,695	
		Vacoas/ Phoenix	100,066		104,317	
		Curepipe	78,920		78,251	
	Sub Total	Plaine Wilhems	358,742	66	358,715	66
Conurbation	Total		547,624	100	546,321	100

Island of Mauritius	1,143,069	100	1,221,921	100
Conurbation % of Island		48		45

Source: year 2000:CSO 2002, year 2020: Statistics Mauritius 2020,

\* VCA: Village Council Area ^ estimate mid July 2020

BLUP (sq. m) 2003-7		BLUP (sq. m) 2008-12		BLUP (sq. m) 2013-18		BLUP (%) 2003-18	
Res.	Non Res.	Res.	Non Res.	Res.	Non Res.	Res.	Non Res.
Port Louis City							
443,671	259,219	322,844	169,728	389,841	188,852	18	28
Plaine Wilhems							
1,802,493	601,332	1,488,536	528,133	2,018,121	445,514	82	72

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Conurbation							
2,246,164	860,551	1,811,380	697,861	2,407,962	634,366	100	100

## 13. Appendix 2 - Abbreviations and Glossary of Terms

Listed below are abbreviations and technical terms used in the National Land Development Strategy.

### 13.1. Abbreviations

AAP	Area Action Plan
AONB	Area of Outstanding Natural Beauty
ESA	Environmentally Sensitive Areas
FAREI	Food and Agricultural Research & Extension Institute
GIS	Geospatial Information Systems
ICT	Information Communication Technology
LRT	Light Rail Transit
MCIA	Mauritius Cane Industry Association
MACH	Ministry of Arts and Cultural Heritage
MAIFS	Ministry of Agricultural, Irrigation and Food Security
MEPU	Ministry of Energy and Public Utilities
MESWMCC	Ministry of Environment, Solid Waste Management and Climate Change
METEST	Ministry of Education, Tertiary Education, Science and Technology
MHLUP	Ministry of Housing and Land Use Planning
MIDSMESC	Ministry of Industrial Development, SMEs and Cooperatives
MLTLR	Ministry of Land Transport and Light Rail

MNICD	Ministry of National Infrastructure and Community Development
MOT	Ministry of Tourism
MSME	Micro, Small and Medium-sized Enterprises
MTPA	Mauritius Tourism Promotion Authority
NLDS	Mauritius National Land Development Strategy
OPS	Outline Planning Scheme
PPG	Planning Policy Guidance
RDA	Road Development Authority
WHS	World Heritage Site

## 13.2. Glossary of Terms

### Archaeological interest

There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

### Authenticity (World Heritage Sites)

Authenticity relates only to cultural properties and is about the link between attributes and Outstanding Universal Value. It is embodied in those characteristics that most truthfully reflect and embody the cultural heritage values of a place. They can be expressed in the variety of types of attributes listed in the definition of attributes (Operational Guidelines).

### Attributes (World Heritage Sites)

Attributes are tangible or intangible aspects of a World Heritage property which are associated with or express the Outstanding Universal Value (OUV) and can be the physical elements, the relationships between elements and/or time related processes. The UNESCO Operational Guidelines for the Implementation of the World Heritage Convention (the Operational Guidelines) indicate a range of types of attribute which might convey OUV, including form and

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design; materials and substance; use and function; traditions; techniques and management systems; location and setting; language and other forms of intangible heritage; and spirit and feeling. Attributes identified for a property should flow from the adopted Statement of Outstanding Universal Value.

### Biodiversity

This refers to the variety of plants and animals and other living things in a particular area or region. It encompasses habitat diversity, species diversity and genetic diversity. Biodiversity has value in its own right and has social and economic value for human society.

### Blue Network

Areas covered by water including the rivers, feeders, canals, reservoirs, lakes and ponds.

### Carbon dioxide (CO<sub>2</sub>)

Principal greenhouse gas related to climate change.

### Comparison retail/shopping

These refer to shopping for things like clothes, electrical items, household and leisure goods. Comparison goods are bought relatively infrequently, so consumers usually evaluate prices, features and quality before making a purchase.

### Conservation (heritage)

The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.

### Construction, demolition and excavation waste

This is waste arising from the excavation, construction, repair, maintenance and demolition of buildings and structures, including roads. It consists mostly of brick, concrete, hardcore, subsoil and topsoil, but it can contain quantities of timber, metal, plastics and occasionally special (hazardous) waste materials. Convenience retail/shopping These refer to shopping for everyday essential items like food, drink, newspapers and confectionery.

### Creative Industries

Those industries which have their origin in individual creativity, skill and talent which have a potential for wealth and job creation through the generation and exploitation of intellectual property

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### Density

tbc

### Designated heritage asset

A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.

### Development

This refers to development in its widest sense, including buildings, and in streets, spaces and places. It also refers to both redevelopment, including refurbishment, as well as new development.

### Development Plan

The National Land Development Strategy, Outline Planning Schemes, other Development Plan Documents and Area Action Plans.

### Development proposal

This refers to development that requires planning permit.

### Digital infrastructure

Infrastructure, such as small cell antenna and ducts for cables, that supports fixed and mobile connectivity and therefore underpins smart technologies.

### Energy efficiency

Making the best or most efficient use of energy in order to achieve a given output of goods or services, and of comfort and convenience.

### Environmental assessments

In these assessments, information about the environmental effects of a project is collected, assessed and taken into account in reaching a decision on whether the project should go ahead or not.



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### Environmental Impact Assessment

This Impact Assessment will set out a developer's assessment of a project's likely environmental effects, prepared in accordance with the Environmental Protection Act 2002. The EPA specifies the contents of the EIA.

### Family housing

A dwelling that by virtue of its size, layout and design is suitable for a family to live in and generally has three, four, five, or more bedrooms.

### Freight

A general term to refer to trips made for the purposes of delivering goods, enabling servicing activity or supporting construction.

### Green corridors

Relatively continuous areas of open space leading through the built environment, which may link to each other and to the rural periphery of other urban open spaces. They often consist of rivers, railway embankments and cuttings, roadside verges, canals, parks, playing fields and extensive areas of private gardens. They may allow animals and plants to be found further into the built-up area than would otherwise be the case and provide an extension to the habitats of the sites they join.

### Green infrastructure

Comprises the network of parks, rivers, water spaces and green spaces, plus the green elements of the built environment, such as street trees, green roofs and sustainable drainage systems, all of which provide a wide range of benefits and services.

### Green roofs/walls

Planting on roofs or walls to provide climate change, amenity, food growing and recreational benefits.

### Greenhouse gas

Any gas that induces the greenhouse effect, trapping heat within the atmosphere that would normally be lost to space, resulting in an increase in average atmospheric temperatures, contributing to climate change. Examples include carbon dioxide, methane and nitrous oxides.

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### Green space

All vegetated open space of public value (whether publicly or privately owned), including parks, woodlands, nature reserves, gardens and sports fields, which offer opportunities for sport and recreation, wildlife conservation and other benefits such as storing flood water, and can provide an important visual amenity in the urban landscape.

### Geoparks

Geoparks are UNESCO accredited sites where sites and landscapes of geological significance are managed for protection, education, and sustainable development purposes. They encourage a bottom-up approach to conservation and management, involving local communities in the decision-making process.

### Heritage assets

Valued components of the historic environment. They include buildings, monuments, sites, places, areas or landscapes positively identified as having a degree of historic significance meriting consideration in planning decisions. They include both designated heritage assets and non-designated assets where these have been identified by the local authority (including local listing) during the process of decision-making or plan making.

### Historic environment

All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.

### Household waste

Household waste includes waste from collection rounds of domestic properties (including separate rounds for the collection of recyclables), street cleansing and litter collection, beach cleansing, bulky household waste collections, hazardous household waste collections, household clinical waste collections, garden waste collections, and any other household waste collected by the waste authorities.

### Integrity (World Heritage Sites)

Integrity is a measure of the completeness or intactness of the World Heritage property and its attributes which express the Outstanding Universal Value it holds (UNESCO Operational Guidelines).

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### Metropolitan Centres

The highest-level centre in the urban area is the Metropolitan Centre. The three Metropolitan Centres of Port Louis, Ebene and Cote D'Or will drive national economic growth with a focus on strategic facilities and services, while adding and integrating new residential development to stimulate 24/7 living, working, studying, and playing. This centre typology is expected to have all the elements found in the lower order centres plus higher order (strategic) uses shown in Figure 7 such as central government institutions, regional and international commercial offices and iconic HQ buildings, national level as well as specialist niche leisure and entertainment attractions, large business hotels and comparison retail. The Metropolitan Centres should also have a high level of national accessibility with multi-modal transport interchange and specialist regional-level further education facilities.

### Mixed-use development

Development for a variety of activities on single sites or across wider areas such as town centres.

### Nature conservation

Protection, management and promotion for the benefit of wild species and habitats, as well as the human communities that use and enjoy them. This also covers the creation and re-creation of wildlife habitats and the techniques that protect genetic diversity and can be used to include geological conservation.

### Previously developed land

Land which is or was occupied by a permanent structure, including the curtilage of the developed land (although it should not be assumed that the whole of the curtilage should be developed) and any associated fixed surface infrastructure. This excludes: land that is or has been occupied by agricultural or forestry buildings; land that has been developed for minerals extraction or waste disposal by landfill purposes where provision for restoration has been made through development control procedures; land in built-up areas such as private residential gardens, parks, recreation grounds and allotments; and land that was previously-developed but where the remains of the permanent structure or fixed surface structure have blended into the landscape in the process of time.

### Primary Rural Centres

Primary Rural Centres play an important role in the rural area providing services for both the settlement and the wider rural area. The walking catchment for the Primary Rural Centre is typically 400m but due to their specific location and wider rural catchment, accessibility by car and public transport, would have a much greater reach. As a result, Primary Rural Centres will

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accommodate services and facilities not normally seen in settlements of their size. They will expect to host workspaces including agri-tech and eco-tourism incubators, large scale convenience retail, cafés restaurants, markets, small specialist retail, health centres and small hospitals. They are likely to be within walking distance of a secondary school and be served by a modernised and integrated bus terminal. The centres should be walkable with through traffic limited by enforcement of traffic demand management measures.

### Public realm

Publicly accessible space (public and private ownership) between and around buildings, including streets, squares, forecourts, parks and open spaces.

### Ramsar Site

Nature conservation site designated under the Convention on Wetlands of International Importance 1971.

### Recycling

Involves the reprocessing of waste, either into the same product or a different one. Many non-hazardous wastes such as paper, glass, cardboard, plastics and metals can be recycled. Hazardous wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.

### Renewable energy

Energy derived from a source that is continually replenished, such as wind, wave, solar, hydroelectric and energy from plant material, but not fossil fuels or nuclear energy. Although not strictly renewable, geothermal energy is generally included.

### Rural Centres

Rural Centres will have a walking catchment of around 200m but a much wider catchment for cars and public transport. The centres are important focal points for the settlement and surrounding rural catchment. They will typically have small office and commercial premises, including retail, together with small scale healthcare. A public space or local park will typically be provided. In some instances, a small market will be provided with an emphasis on selling local produce. The typical mix of uses is illustrated in Figure 10 **Error! Reference source not found..**

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### Sequential approach

Planning policies that require particular steps to be taken, or types of location or sites to be considered, in a particular order of preference. For example, retail, commercial and leisure development should be focused on sites within town centres, or if no in-centre sites are available, on sites on the edges of centres that are or can be well integrated with the existing centre and public transport.

### Social Infrastructure/ Community Infrastructure

Covers facilities such as health provision, early years provision, schools, colleges and universities, community, recreation and sports facilities, places of worship, policing and other criminal justice or community safety facilities, children and young people's play and informal recreation facilities. This list is not intended to be exhaustive and other facilities can be included as social infrastructure.

### Soundscape

The overall quality of an acoustic environment as a place for human experience. Soundscape design might include preserving, reducing or eliminating certain sounds or combining and balancing sounds to create or enhance an attractive and stimulating acoustic environment.

### Strategic views

Views seen from places that are publicly accessible and well used and make a significant contribution to the image and character of Mauritius at a national and international level. They include significant buildings or urban landscapes that help to define Mauritius at this level.

### Sustainable Drainage Systems/ Sustainable Urban Drainage Systems (SUDS)

Using sustainable drainage techniques and managing surface water run-off from buildings and hardstandings in a way that reduces the total volume, flow and rate of surface water that runs directly into drains, sewers and waterways.

### Townscape

An assessment of the urban form and its visual appearance which includes buildings, streets, spaces and particularly how the different elements combine to give a place a character that is distinct to a particular locality.

### Townscape Views

Designated views which focus on architecturally and culturally important groups of buildings that can be enjoyed from well managed public spaces.

### Transport Assessment

This is prepared and submitted alongside planning applications for developments likely to have significant transport implications. For major proposals, assessments should illustrate the following: accessibility to the site by all modes; the likely modal split of journeys to and from the site; and proposed measures to improve access by public transport, walking and cycling.

### Urban Centres

Urban Centres will be typically located at the existing Town Centres and provide the focal point for residents of that area. They are important places as they provide the sense of identity for residents in the conurbation. Unfortunately, many centres are not fulfilling their role as competition from Malls has resulted in many to spend less time in their town centres.

The centre will have a walking catchment of around 400m radius or 50ha. A wider catchment by car and public transport will be likely with catchments often overlapping. Some Urban Centres will also be the main centre for residents in the rural area in the peri-urban area just beyond settlement boundaries.

Urban Centres will be typically located at the existing Town Centres and provide the focal point for residents of that catchment area. They are important places with well-established buildings, bus stands and market fayres that provide the sense of identity for residents in the conurbation. Unfortunately, many centres are not fulfilling these roles and have lost trade to more modern and attractive edge of town shopping malls and commercial complexes which have increasingly attracted residents with cars, especially at weekends.

### Urban Heat Island

The form and density of buildings and their arrangement means that while more heat is absorbed during the day, it takes longer to escape at night. The temperature difference is usually larger at night than during the day. The Urban Heat Island effect is noticeable during both the summer and winter months.

### Urban Terminals

Urban Terminals refers to land immediately surrounding a Metro Express Station. They may or may not form part of a wider centre as established by the centre hierarchy.

### Zero-carbon

Activity that causes no net release of carbon dioxide and other greenhouse gas emissions into the atmosphere.

Zero-emission

Activity that causes no release of air pollutants and carbon dioxide or other greenhouse gases.