



# 1

## Introduction

An overall introduction to the Physical Development Plan (2023) including: purpose and basis, structure of the document, Vision and Principles, and current challenges and imperatives to which the Plan needs to respond.



> The Careenage, Bridgetown

## 1.1. Overview

This document constitutes the Physical Development Plan (2023) for Barbados. It provides a vision for the sustainable growth and development of the nation by setting out policies to guide relationships among land uses, built form, natural heritage, cultural heritage, mobility, and national infrastructure. It is also intended to be a framework to facilitate and guide investment, both public and private, in Barbados for the next 10 years to advance a green, prosperous, healthy and resilient nation.

Physical planning is undertaken in Barbados for the orderly and progressive development of land and to ensure that development furthers national goals. Physical planning as a government function is based on the Planning and Development Act (2019), as amended. The Act provides for the preparation of development plans relating to the whole island or to parts of the island. The Barbados planning system is based on the British system whereby land is allocated or designated for different uses.

The first Physical Development Plan for Barbados was published in 1970 and came fully into operation in 1976. Since that time, Barbados has experienced many important changes in the pattern of economic, demographic and physical development, making it necessary at intervals to carry out an island-wide review of settlement patterns and update the Physical Development Plan. This resulted in the adoption of an updated PDP in 1991 and again in 2003 and a draft PDP Update prepared in 2017. The concept of sustainable development emerged in the 1986 review, leading up to the 1991 Plan, and remains a critical Government commitment today as evidenced by Barbados' adoption (2015) of the United Nations Global Sustainable Development Goals as contained in the 2030 Agenda for Sustainable Development, and its signing of the New Urban Agenda (2016) and the COP 26 Glasgow Pact (2021).

Today, Barbados remains the only nation in the Caribbean region to have a current national physical development plan. This Physical Development Plan (2023) is a critical chance to strengthen this policy and investment framework in order to respond to the key opportunities and concerns that have emerged over the past 10-15 years.



➤ **Overarching goals of the PDP (2023)**

At a very high level, these opportunities and concerns are reflected in five concepts that permeate throughout the document. **The Climate Crisis** has emerged since the PDP Amended (2003) as the preeminent threat to the world as a whole and Small Island Developing States (SIDS) in particular. Barbados is recognised as an **island of scarcity** - food, land and water are resources that cannot be taken for granted and must be protected and planned for. **Moving toward a Green and Blue economy** is a government priority and a national necessity to remain globally competitive and grow in a sustainable manner. **Sustainable development patterns** are key to protecting the country's scarce resources but have not been achieved since the PDP Amended (2003). Finally, with chronic non-communicable diseases reaching concerning levels in the population, the importance of planning **healthy communities** has risen to the forefront.

These overarching objectives must be considered in every land use and investment decision. At the core of the PDP (2023) is a recognition that the physical development of Barbados is about the people of Barbados. It is intended to guide the physical development of the country in a manner that supports the continued health and prosperity of Barbadians.

### 1.1.1 Purpose of the Plan

The main purposes of the Physical Development Plan (PDP) are to:

- Foster the economic, environmental, physical and social well-being of the residents of Barbados;
- Address the critical impacts of the climate crisis on Barbados as a Small Island Developing State (SIDS);
- Establish a vision to guide the future form of development with respect to land use, settlement patterns, food production, infrastructure, mobility and environmental management;
- Guide the future form of development on the island and inform the public, business and government sectors as to the nature, scope and location of both development and protection areas for core assets; and
- Provide a clear and accessible framework for private and public investment in communities, business sectors and infrastructure across the island.

### 1.1.2 Basis of the Plan

The policies contained in the Physical Development Plan, Amended (2003) were reviewed, refined and augmented during the process of drafting this PDP. This process, as well as the work undertaken for subsequent draft updates of the PDP, involved a detailed assessment of the effectiveness of the existing policies, an assessment of recent development and settlement patterns, and consideration of critical new factors, initiatives and commitments, including the Healthy Caribbean Coalition, the Green Economy Scoping Study (2012), the Habitat III New Urban Agenda (2016), the COP 21 Paris Agreement (2015), the COP 26 Glasgow Pact (2021), the UNESCO World Heritage Site inscription for Historic Bridgetown and its Garrison (2011), and the Emerging and Sustainable Cities Initiative (2015). This analysis was detailed in the following background reports:

- Background Review Sectoral Reports (24);
- White Paper: Key Considerations for the PDP;
- Recommended Priority Policies Memorandum; and
- Development studies, including Major Development Applications, Vacant Lands, Plot Coverage, and assessment of the Integrated Rural Development Programme policies.



## 1 Introduction

### 1.1 Overview

An introduction to the Plan purpose, basis and how to use the Plan

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Addressing Scarcity and Irreplaceable Resources  
Moving toward the Green and Blue Economy

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9 Oistins

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7 Speightstown

10 Six Cross Roads

13 Belleplaine

8 Holetown

11 Warrens

14 Bathsheba

FIGURE 1. Physical Development Plan (2023) Structure

### 1.1.3 How to Use this Plan

The Physical Development Plan assists the Government of Barbados and stakeholders who wish to invest in or develop land to understand how their parcel fits into the overall plan for the island and what land use permissions currently apply. It provides clear direction and facilitates investment by providing information to landowners about the development process and the framework that the Planning and Development Department (PDD) uses to evaluate applications. Additional, more detailed resources are available to guide citizens, landowners and investors including the *Applicants Handbook and Guide to Town*

*Planning and the Applicants Handbook and Guide to Coastal Planning in Barbados.*

The Physical Development Plan (2003) was substantively updated in 2017, with additional updates to modernize the Plan between 2022-2023. Unless otherwise stated, data, mapping and information used throughout the National policies and Community Plans are from 2017. Readers should check Legislation and Orders referenced in the PDP (2023) to determine if these have been superseded or amended.

**Figure 1** Visually illustrates the structure of the Physical Development Plan (2023). The document is organised as follows:

**Part A** of the Plan contains the National Policies and is divided into five sections.

**Section 1: Introduction** sets the stage for the PDP (2023). It presents the Vision and Principles that the PDP is based upon and explains the imperatives driving the PDP.

**Section 2: Strategic Policies** contains island-wide directions organised into the overarching policy areas of Promoting Sustainable Development, Protecting Core Assets, Advancing Mobility and Accessibility, Greening the Economy and Planning for National Infrastructure. Maps 1 to 12 accompany the Strategic Policies.

**Section 3: Land Use and Built Form Policies** sets out policies for each of the 13 land use designations that cover the island. Map 13 depicts where each land use designation applies. Map 14 accompanies the resource extraction designation and shows the areas where these policies apply.

**Section 4: Barbados System of Parks and Open Spaces** contains policies for each of the seven open space categories. Map 15 depicts the areas where the open space categories apply. Policies related to the National Park are found in this section and Maps 16 and 17 show greater detail within the National Park area.

**Section 5: Implementation** provides information on the tools and strategies that will be used to implement the policies of the PDP (2023).

**Part B** of the Plan contains Community Plans which give more place-specific direction for the following nine communities: Bridgetown, Speightstown, Holetown, Oistins, Six Cross Roads, Warrens, Wildey, Belleplaine, and Bathsheba. The National Policies still apply in these areas but are augmented by the place-specific community plan policies.

**Appendix A** contains 11x17 fold outs of the Strategic Policy maps.

**Appendix B** contains the glossary, which defines key concepts and policy terms to ensure understanding of policy intent.

**Appendix C** contains the current inventory of Cultural Heritage Assets, including Listed Buildings and Archaeological Areas.

**Appendix D** contains mapping and descriptions of the Strategic Reinvestment Areas, key underutilized areas that provide critical opportunities for reinvestment as they have the potential to act as catalysts for the regeneration of their communities.

## ➔ 1.2

# Vision

The Physical Development Plan (2023) seeks to achieve a vision for Barbados over the next 10 years as:

- A nation of healthy, safe, distinct and age- and gender-responsive communities sharing a common economic base and community aspiration.
- A nation in which resilient, sustainable economic and physical growth are balanced with conservation and restoration of irreplaceable resources, rural working landscapes, cultural heritage and natural heritage.
- A nation which fosters a green and blue economy focused on strategies to enhance resource efficiency and economic growth, in particular in the sectors of agriculture, fisheries, housing, transportation, renewable energy and tourism.
- A nation characterised by increasing social equity enabling meaningful participation in social and economic activities for all.
- A nation which is resilient and prepared for the impacts of the climate crisis.

# Principles

The following principles underlie the policies of this Plan:

- The efficient use of land, resources and finances of the nation.
- The adoption of adaptive planning approaches in all aspects of national and sectoral planning for the consideration of climate variability and climate crisis impacts.
- The promotion of social equity, health and safety for all residents.
- The conservation, protection and restoration of irreplaceable core assets and man-made resources.
- The development of safe, vibrant places for people to live, work and play.
- The management of growth so that it occurs in a safe, logical and orderly fashion ensuring protection of core assets, reduction of environmental risks and ecological scarcities, promotion of sustainable development and efficiency in delivery of infrastructure.



➤ Jubilee Gardens and the Old Town Hall, Bridgetown

## ➔ 1.3

# The Plan Imperative

Barbados is a Small Island Developing State (SIDS) with significant accomplishments, diverse and strong assets and a high level of vulnerability. Over the last 20 years, much has changed globally and locally – economically, environmentally and socially. An increase in GDP and greater personal wealth and access to goods have changed Barbados' economic status from developing country to a recognised 'developed' nation by the UN's Human Development Index. These advancements have resulted in more choice for citizens, but also significant changes to the pattern, density and nature of development on the island.

New initiatives and commitments such as the Paris Agreement (2016) adopted at COP 21, an historic agreement to combat the climate crisis and accelerate and intensify the actions and investments needed for a sustainable, low carbon future, the Glasgow Climate Pact adopted at COP 26, the 2011 UNESCO World Heritage Site inscription for Historic Bridgetown and its Garrison, the New Urban Agenda (2016) adopted at Habitat III and the Emerging and Sustainable Cities Initiative (2015) have opened new doors to opportunity.

The process of drafting the Physical Development Plan (2023) is a critical opportunity to review and refine the 2003 Plan. However, clearly there have been major changes in development drivers and government priorities in the past 20 years and there is a need to think beyond the present day context to the actions necessary to create a sustainable and economically vibrant nation in the future.

One observation is clear – Barbados is an island of tremendous opportunity and vulnerability, the latter of which is only going to increase. The current pattern of development and infrastructure is not seen as sustainable in this context. Today, the island is food, water and land scarce – a condition which increases vulnerability and strain on foreign currency. The imperative of the climate crisis is increasingly clear and immediate.

## BARBADOS' MANY ASSETS INCLUDE:

**92 kilometres**  
of coastline

**348 kilometres**  
of gullies

**7,454 hectares**  
of National Park and open spaces

Regionally important nesting areas for the endangered **Hawksbill turtle**, and stopover habitat for several endangered **migratory bird species**

**9,100 hectares**  
of Super Prime and Prime A agricultural land

**2,500 tonnes**  
of fisheries output per year

**337** Listed heritage buildings and the UNESCO inscribed **World Heritage Site of Historic Bridgetown and its Garrison**

**99.7% literacy**  
and the highest UN Human Development Index (HDI) ranking in the region

**Increasing forest coverage**

**Highest road and population densities**  
in the region



➤ Development on the north side of the St. George Valley

The process of drafting this PDP is an opportunity to set in place transformational and foundational change to patterns of growth and mobility and provision of infrastructure. It is an opportunity to support Barbados' transformation to a green and blue economy and to plan sustainably for the needs of future generations of Barbadians.

### 1.3.1 Barbados Today

On November 30, 2021 Barbados transitioned from a parliamentary constitutional monarchy to a parliamentary republic, marking one of many important and defining milestones of the nation and its people. The foundational influence of the island's early governance and constitution, innovation in the sugar and rum industry, high levels of literacy, and more recently the UNESCO World Heritage Site designation recognising the value of Historic Bridgetown and its Garrison are a mere sampling of significant national accomplishments. The existence of the current Physical Development Plan and National Park Development Plan (1999) are also notable signs of leadership in planning, given that Barbados is the only nation in the region with a current comprehensive national land use plan. Yet as a Small Island Developing State (SIDS), and one in which over 25% of the population and much of the critical infrastructure lie within two kilometres of the coast, the island remains vulnerable.

### 1.3.2 Economic Context

**After a period of decline, the Barbadian economy is recovering, however the traditional economic sectors are changing.**

The Barbados economy experienced sustained growth from 2003 to 2007. This was reflected in the number of planning applications submitted, culminating in a record high of just

over 4,000 applications in 2007. Not coincidentally, this was also the year for the staging of the Cricket World Cup in the Caribbean and a number of Barbadians availed themselves of the opportunity to renovate their homes in the hope of providing tourist accommodation for that event.

With the onset of the global financial crisis of 2008, economic activity on the island started to decline, including construction activity and the number of tourist arrivals. There was concern for the international business sector which came under pressure since the 2008 global financial crisis and measures were being put in place to have this trend reversed. After eight years of slow growth, the Barbadian economy at the end of 2016 showed encouraging signs in selected traded/export and non-traded/non-export sectors. Real growth of GDP was estimated at 1.6 percent at the end of 2016 which represented a 0.7 percentage point increase over the 2015 period which itself had recorded growth of 0.9 percent.

From 2010 to 2016, the total number of planning applications annually dipped below 2,500. Spurring reinvestment is a critical imperative and economic strategy for the island's sustainable future, particularly given the COVID-19 pandemic, which caused a significant drop in international tourism. The regulatory framework, including the Town and Country Planning Act of 1965, was not perceived as facilitating investments that could reinforce economic growth and sustainable development. Consequently, the 1965 Act was replaced by the Planning and Development 2019 proclaimed in December 2021. The Act introduced specific measures to improve the efficiency of the planning process and enhance transparency, accountability, and public participation in development planning.

By 2022, the economy expanded by 11.3 percent (real GDP). This recovery was mainly driven by a 105 percent upturn record in the tourism sector and moderate improvement observed in most other sectors.

Barbados will continue to revitalize its tourism sector. This will require a very competitive tourism product, with a focus beyond the traditional sun, sea and sand. In particular, Barbados' offering must incorporate nature tourism, especially within the National Park and the Scotland District. Sports tourism continues to be an attraction while medical and educational tourism is starting to take off with the advent of offshore medical schools to the island as well as plans for private hospitals with an international allure. Efforts are also focusing on establishing stronger agri-tourism links inclusive of culinary tourism.

The inscription of Historic Bridgetown and its Garrison on the prestigious UNESCO World Heritage Site recognition has also made provision for the heritage tourism element to be better explored and provides an excellent avenue for Barbados to showcase its rich tangible and intangible heritage.

The rate of inflation remains low, especially wage inflation and the Tripartite Social Partnership which became a model for industrial relations during the 1990s has been revitalised. This model has been adopted as a best practice by other SIDS. Agriculture continues to receive a focus in light of the need for food security and food sovereignty. The very high food import bill has to be addressed given its drain on the precious foreign reserves of the island. Barbados is now committed to achieving food sovereignty and, where possible, protecting its citizens from the shocks and volatility in external markets. The trend towards an emphasis on food quality should have a positive impact upon the agricultural sector. Whereas it is not expected to rebound to match the economic output of the 1960s and 1970s, the sector is still of vital importance to the country's development. The sugar cane industry will have to be transformed in order to remain relevant, and in this regard, the proposed new sugar cane factory would lend to this larger objective by providing various related outputs while using renewable energy to fuel the production process. This is also related to the production of Barbados molasses which has to be used in the production of local rum in order to maintain the authenticity of the internationally renowned brand.

The whole concept of the green and blue economy introduces a new path for the future development, economic and otherwise, of the island. This will be built not only on renewable energy but across all sectors. It has the potential to unleash the spirit of entrepreneurship and create new avenues of employment which are critical given the current pressures on the traditional modes of employment and economic generation.

### 1.3.3 Critical Challenges

**The development and growth patterns over the last two decades are not sustainable over the long term.**

While population has remained relatively stable over the past decades, there has been a significant increase in the amount of land consumed for development. As indicated by the Emerging and Sustainable Cities Initiative (2015), between 1991 and 2013, outward growth has consumed 228 ha/year cumulatively, resulting in an increase in the urban footprint by 64% to accommodate 6% population growth and the formation of new households over the same period of time. Further, this growth has been accommodated in increasingly lower densities. Between 1983 and 2011, residential density in the urban corridor declined from 23 people per hectare (pph) to 18 pph. This demonstrated pattern of sprawl has implications on scarce and key assets (water, food production, land) and transportation patterns but also on the public cost of building, operating and maintaining infrastructure over the long term. Looking to the future, where forecasts anticipate a gradual long-term decline in population beginning in 20 years as well as a significant aging of the demographic, the location, scale and type of recent housing development is not likely to serve well the needs of the population.



➤ Warrens, St. Michael



> Bridgetown

### **Approved development has significantly impacted agricultural and water resources and health of natural ecosystems**

While much of this development has occurred within the Urban Corridor, a significant amount of development has also occurred on agricultural land, in many instances on some of Barbados' most fertile soils in the St George Valley. Between 1991 and 2013, the amount of agricultural land was reduced by 53% through conversion to other uses and lack of cultivation resulting in it turning to bush. This equates to a significant reduction in production capability as well as fragmentation of agricultural land. In many instances, growth is occurring well beyond the Urban Corridor or other planned centres for growth. In some instances, this growth has been occurring within the most sensitive groundwater protection areas or at a scale where provision of services is not efficient. The result is not planned, complete urban environments; rather it is fractured, disconnected and partial urbanisation.

In addition, waste, wastewater and stormwater quality issues have had a significant impact on natural systems. Of particular note is the degradation to around 10% of historic levels in coral cover due to the influence of multiple sources of land-based pollution. Barbados' coastal resources are not only vital to environmental and human health but also to the economy. Further, waste generation and management is a significant challenge. Approximately 1,000 tons of solid waste are generated per day across the island. While garbage diversion rates are on the increase, having reached 70%, the incidence of dumping of waste, often into the water and gully systems, appears to be on the increase as well. Unlike the climate crisis, which Barbados cannot significantly impact on its own and therefore must plan for, the quality of discharges to groundwater and the sea is something that the country can exert direct control over through solid waste management and wastewater and stormwater practices.



> Bathsheba, St. Joseph

### **Significant loss of agricultural land threatens the viability of the agricultural sector and increases food insecurity**

Fundamental shifts in the agriculture and food production sectors have had an impact. Moving away from more traditional food production practices, Barbados has been increasingly reliant on food imports; in 2014, over BBD 600 million was spent on food imports. Further, food as a percentage of total imports has been on a concerning upward trajectory. Between 2000 and 2011, it increased from 15% to 25% of total imports, a level which is seen as unsustainable.

### **Rising levels of chronic non-communicable diseases are linked to physical development patterns and lack of access to healthy foods**

Lifestyle choices and patterns of development have been a significant contributor to the increasing rate of chronic non-communicable disease, resulting in high rates of diabetes (17%), overweight (37%) and obesity (29%) within the population. Increasing dependency on the car, inhospitable walking environments and longer distances to access daily needs such as groceries, work and school has been an acknowledged contributor to these trends. Resultant costs to health care provision will increase significantly.

### **New growth at the fringe has happened at the expense of historic community cores and existing settlements**

Much of recent development has been occurring on the periphery of or outside the Urban Corridor in St James, St George and St Phillip. At the same time, St Michael lost over 9% of its population between 1990 and 2010. This trend in combination with an increase in vacant and derelict buildings, located predominantly within the traditional and historic urban areas, suggests that new growth in the periphery is to some degree happening at

the cost of reinvestment in community cores and older neighbourhoods. More specifically, between 1990 and 2010 the number of overall housing units grew by 15% while unoccupied units grew by 118%. Further, the level of vacancy, demolition or destruction of recognised heritage properties is high. As can be evidenced in many rust belt cities in North America, the hollowing out of the cores of cities and destruction of historic fabric can have a devastating effect on the health, vitality and livability of the entire city. Barbados is well positioned to follow more recent western world trends of both the younger and the older population moving back to the city to take advantage of urban living, amenities and lifestyle choices.

### **There is a growing infrastructure deficit**

Despite having expanded the development footprint on the island by over 60% and almost doubling the number of cars over the last two decades, there has been little expansion in infrastructure capacity to accommodate these patterns. The transportation network of highways and roads is fundamentally the same as it was 20 years ago. There is a significant backlog of maintenance of existing infrastructure. The potable water system has major inefficiencies in delivery, in that 62% of distributed water is not accounted for. Outward growth has created inefficient infrastructure to operate and maintain, in fact more costly than older, more compact phases of development. Also, high vacancy levels in urban areas means existing infrastructure is being underutilised.

### **The climate crisis requires new thinking in planning and design of future development**

Barbados' sustainable socio-economic development is dependent on the comprehensive and explicit consideration of the climate crisis and disaster risk management in the PDP, the guide for national land use and development. The implications of recent island-wide growth and development patterns are accentuated by the immediate and ongoing imperative created by the climate crisis. Trends of steady state population projections, changing demographics, increasing national scarcity in terms of food, water and land, declining densities and outward growth, loss of agricultural land, increasing rates of lot and building vacancy, impacts on the most sensitive groundwater protection zones, and infrastructure deficit are all related to the potential impacts of the climate crisis. This is the context in which planning for the next 20 years must be understood.



> Freights Bay, Oistins, Christ Church



> Independence Square, Bridgetown

### 1.3.4. Introducing Transformational and Foundational Change

This Physical Development Plan (2023) is a critical opportunity to change the traditional growth paradigm and introduce transformational and foundational policy directions that can guide more sustainable investment, land use and infrastructure decisions in Barbados. Several transformational ideas form the foundational concepts of the PDP.

#### Addressing the urgency of the climate crisis

As a SIDS, Barbados is at significant risk of experiencing the negative effects associated with the climate crisis. To respond to this reality, the PDP must introduce new policy directions that focus on resiliency and adaptation strategies. Addressing the climate crisis must become a central objective of the PDP, becoming integrated as a cross-cutting consideration touching on all of the components of the Plan. The concepts and theories of the climate crisis must urgently be realised as actionable goals and objectives – the time



> Marchfield IRDP, Six Cross Roads, St. Philip

to act is now. The Government of Barbados has responded to the climate crisis by setting a target to achieve a 70% reduction in gross GHG emissions by 2030 with a view to achieve 100% reduction in gross GHG emissions (economy wide) by 2035.

The Roofs to Reefs Programme was recently developed and launched as an integrated public investment programme founded on sustainable development principles and climate resilience. This programme will help create, and achieve, actionable goals.

#### Responding to demographic trends

Based on the current population analysis, without policy intervention, Barbados is projected to experience modest population growth and then decline. A key implication of these findings along with the aging demographic is that there is a critical gap in Barbados' future workforce. It is projected that a population increase of approximately 185,000 people would be needed by 2050 for the size of the population to be if the fertility rate of 2.1 was maintained since 1980. Through the recommendations of the National Population Commission, policies to encourage a population increase are being considered. Plans for economic resilience and population growth over the next 20 years need to be framed in the context of sustainable urban structure which recognizes Barbados as a Small Island Developing State and an island of scarcity that highly values its resources including land, water, natural heritage and agriculture.

#### Redefining the island's urban structure

The current planned island structure defined simply by a contained Urban Corridor balanced against natural systems and agricultural lands has not translated into on the ground land use decisions and does not represent a solid departure point for the PDP (2023) and the long term future of the island. The process of drafting PDP (2023) is an opportunity to revisit and redefine the urban structure to reflect existing development patterns and create a framework that responds to scarcity in part through the clear definition and protection of core assets.



> Lewis-Wickman Boardwalk, The Careenage, Bridgetown

### 1.3.5. Roofs to Reefs

The Roofs to Reefs Programme represents the development model for Barbados for the next decade. Its focus is on improving the social and environmental circumstances of Barbadians: improving living conditions and making us more resilient to the impacts of the worsening climate crisis and related natural disasters while increasing our ability to recover quickly post-disaster. The Programme will improve the housing stock and access to water and sanitation, eradicating pit toilets, use solar and other green energy options to reduce dependence on fossil fuels and direct line electricity transmission, improve water quality, and reduce the volumes and impacts of waste. This will lead to improvements in living conditions, the terrestrial and marine environments, including gullies and coral reefs.

### 1.3.6. Addressing Scarcity and Irreplaceable Resources

#### **Moving toward food security, sovereignty and a viable food and agriculture sector**

Addressing scarcity – in terms of food, water and land – is a crucial objective of the PDP (2023). While much of the island is arable, the best agricultural soils occupy only 9.5% of Barbados. These lands are irreplaceable, representing some of the best places on the island to farm and cultivate local sources of food. Yet many areas with super prime soils have already been developed and built over, or have been approved for future development. It is critical in order that the lands that remain are strictly protected as places NOT to develop to increase the island's food security. Further, investment in the Island's fisher-folk and fishery sector can enhance this key source of local food, as the current fleet catches only half of the local fish demand. Finally, increasing opportunities for value added agricultural activity related to food and fish can increase economic, trade and job opportunities.

## Celebrating heritage and the stories of Barbados

Barbados' cultural heritage and the stories of Barbadians are irreplaceable core assets. The UNESCO World Heritage inscription in 2011 was a critical achievement, both in international recognition of the heritage value of Historic Bridgetown and its Garrison, but also in galvanising national efforts to celebrate and capitalise on heritage assets. The challenge ahead is to implement the many commitments and practices detailed in the Management Plan. Integration of the World Heritage Site into the PDP (2023), along with complementary policies, is one critical step of many. Aligning PDP policies with contemporary heritage standards to support heritage throughout the island and in communities such as Speightstown, Oistins and the National Park is another.

## Integrating the island's ecosystems

Significant progress has been made over the past 20 years to increase the health of island's natural heritage – particularly as it relates to vegetative coverage and the gully systems. The Natural Heritage Department has been very successful in working with local operations at Harrison's Cave, the Walkers Sand Mine Restoration and the Codrington Trust to advance environmental health and awareness. However, significant degradation of other systems such as the marine ecology has occurred – an area critical to the tourism sector as well as for the local fishing industry. In particular, as an island the symbiotic nature of the terrestrial and aquatic systems must be recognised and reinforced by taking an ecosystems approach and integrating Barbados' natural heritage features.

The Barbados National System of Parks and Open Spaces is an important example of area where natural heritage protection has effectively been applied using an ecosystems based approach. This approach should be expanded across the whole island to manage and protect natural heritage systems.



➤ Queen Street, Speightstown

### 1.3.7. Moving toward the Green and Blue Economy

The Green Economy Scoping Study (GESS) sets a critical and divergent path for the future of Barbados. The PDP (2023) embraces and integrates these directions. In particular, there are eight key areas of consideration.

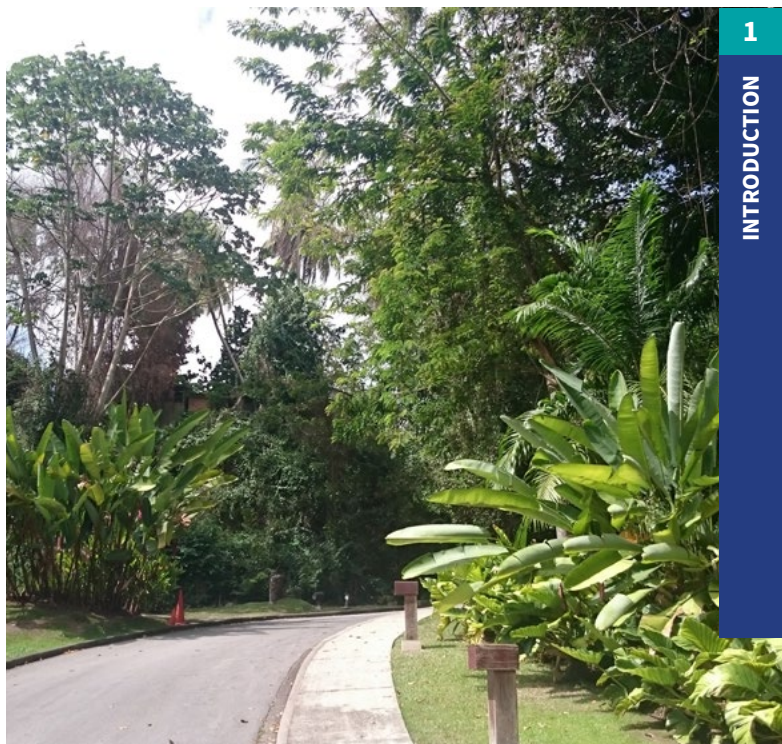
#### From car-centric transportation to multi-modal mobility

Over the last 20 years, significant outward and disconnected suburban growth combined with a doubling of the number of cars has resulted in peak hour gridlock and increasing levels of congestion almost everywhere on the island. The system has a very strong reliance on private cars for mobility and as a driver in land use decisions. Today there is an absence of a national transportation mobility plan to guide future investment and propose transportation strategies at the island scale. While the Ministry of Transport, and Works and Water Resources Strategic Plan (2017) establishes key directions, it needs to be reinforced by a National Transport Strategy.

It is well demonstrated that constructing new roads alone will not solve transportation challenges. There must be a change in emphasis towards mobility - shifting the focus from planning for cars into planning a network where there is transportation choice for people and goods. The PDP must set the stage to ensure that a range of transportation strategies and modes are deployed that are appropriate to the context. These include: a reliable and effective transit network; urban transportation management strategies; introducing park and ride lots at key junctures; defining parkway drive; advancing existing and planned active transportation and trails; and introducing a water taxi or water ferry service. Not only will this help to move people and goods, it may also help to counteract the problem of chronic non-communicable diseases as it will encourage Barbadians to use more active forms of transportation.

#### Diversifying the housing offering to meet the future demographic

Housing is a fundamental human need and a critical element in community planning. Accommodating the population in adequate housing that meets residents' needs is one of the primary objectives of land use planning and has historically been one of the primary drivers of growth.



> Graeme Hall Swamp, Christ Church



> The Esplanade, Speightstown



#### > The Risk, St. Peter

The housing need of the next 10 years will have a different complexion. Changing demographics in Barbados will shape housing requirements. Today, the demand for housing is largely driven by the formation of new households, rather than overall population growth. Yet, the needs of some of these new households are not being met by the type, size, cost and location of new housing stock, the majority of which is single family housing. Those with lower incomes need access to new and high-quality climate resilient affordable housing. The aging population requires consideration of what seniors' housing and aging in place housing options look like, a relatively new housing sector in Barbados. Young singles and couples wishing to live on their own do not need a multi-bedroom house. Furthermore, the impacts of the climate crisis touch every sector, including housing. Resiliency of the housing sector, including location, building standards and servicing of new housing, will be a primary concern. There is a need to encourage a greater diversity of housing with a focus on creating more complete and sustainable communities that allow people to access services and amenities within their community without a reliance on the automobile. Finally, there is an opportunity to align future housing development with the regeneration and reinvestment in traditional community cores through public and or private sector investments.

#### **Optimising existing infrastructure and investing in sustainable infrastructure**

Barbados has an infrastructure deficit, both in terms of ongoing operations and maintenance of existing infrastructure and in terms of resilient and sustainable infrastructure to support people and businesses over the next 10 years. Greater emphasis must be placed on integration of land use and infrastructure planning, for example, encouraging development in places where existing infrastructure and transportation choice can be optimised. There is an opportunity to factor in not only the capital but also the operating and maintenance costs of new development and infrastructure in planning decisions, to capture the true cost of development. There is an opportunity to promote and encourage conservation and sustainability measures. Perhaps most critically, there is an opportunity to integrate strategies for adaptation and resiliency into infrastructure plans, designs and decisions.

## Strengthening existing communities

Community cores - the centres for commerce, local and tourism driven businesses, attributable places and community gathering - are amongst the core assets of the island and require continued efforts to stabilise and revitalise as the hearts of communities and critical drivers in a green and blue economy. The cores are also the focal points for much of the island's cultural heritage, both physical and intangible. Strategies for reinvestment, growth, and reinforcement of place are key to reversing the trends of vacancy and disrepair, but also offer some of the best opportunities to encourage walkable, complete communities with a diverse range of housing choice. There is an opportunity to reinforce the distinct strengths and attributes of each community by focusing on their historic core areas.

## Stimulating Reinvestment in Key Sites

Throughout the island and particularly in Bridgetown there are key opportunity areas for reinvestment. Most of these sites are publicly owned and have remained underutilized, derelict or vacant for many years. Yet, these sites have the potential to act as catalysts for the regeneration of their communities. They can also play an important role in the economic sustainability of Barbados, attracting local and foreign investment and creating positive places and public realm for Barbadians and tourists alike. Reinvestment in these sites is a critical opportunity to change growth patterns and move towards more sustainable development that makes more efficient use of infrastructure through infill in the existing urban area. The PDP (2023) presents an opportunity to identify these catalytic sites as Strategic Reinvestment Areas and define the policies, design direction and processes to stimulate reinvestment and redevelopment.

## Greening the tourism offering – beyond sun, sand and sea

A critical component of the Green and Blue Economy is the broadening of the existing tourism offering - focused around sun, sea and sand - to celebrate the island's natural heritage, cultural heritage, authenticity of place and demonstration of innovation and sustainability. Barbados is fortunate to have 14 national attractions, historical, beach and recreational parks and cultural and natural heritage conservation areas that could also be focal points of the tourism strategy. These need to be supported as distinct and important places individually, but also for what they collectively offer to expand the tourism sector.

## Moving forward implementation of the National Park

Looking at the aerial photography (2015) and comparing it to the base case used to create the National Park Development Plan in 1998, it is apparent that the National Park has been successful at advancing the natural environment in Barbados. The overall coverage and linkage of naturalised areas has increased, on a general level, both within the National Park and throughout the gully and ridge areas in the central part of the island. Additionally, the PDD and the Natural Heritage Department have used the combination of the PDP Amended (2003) and National Park Development Plan (1999) to achieve some of the desired outcomes for the National Park expressed in both plans. While formalised capital projects have not been abundant over the past 20 years, the idea of why the National Park was created, essentially to preserve and expand natural systems, seems to have not only held its ground, but in fact advanced on some levels, in particular the expansion of canopy and connectivity of the gully system. The launch of the Barbados System of Parks and Open Spaces in June 2016 was a critical reinforcement of this success.

Going forward, there are opportunities to build on this momentum: to increase awareness and resonance of the National Park for the people of Barbados and to further advance the integrated environmental framework or ecosystem approach inherent in the National Park Development Plan (1999) within an overall Natural Heritage System.

## Promoting sustainable resource management

As an island of scarcity, sustainable resource management will be key in terms of natural resources but also energy production. A focus on greater self-sufficiency and resiliency are essential in light of economic and climate crisis challenges. There is a current dependency on oil and gas as an imported fuel source. The role energy consumption plays in terms of GHG emissions is significant, electricity generation being responsible for 67% of Barbados's GHG emissions. However, success in recent initiatives such as the introduction of domestic photovoltaics and the ongoing planning and implementation of future initiatives for both solar and wind energy are indicative of change on the island. A focus on innovation, conservation and renewable resources will continue to be important in achieving the 2030 targets for emissions reduction.

