

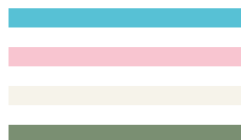


FUTURE BARBUDA

PUBLIC AND PRIVATE REALM GUIDANCE

VOLUME 4

#FUTUREBARBUDA



INTRODUCTION

This is Volume 4 of a 5-Volume Draft Master Development Plan and Design Brief, based on the Government of Antigua and Barbuda contract Terms of Reference for Task I and Task II. The final agreed version of the Master Development Plan is scheduled to be completed as part of a separate contract as Task III of the Master Plan. Task III is scheduled to start after the completion of Task II, at the discretion of the Government of Antigua and Barbuda.

This volume is informed from consultations and data sources referenced in the following Volume(s) of the Existing Conditions Assessment (Task I Phase 3 of the Master Development Plan contract):

- Volume I: Methodology and Approach of the Existing Conditions Assessment.
- Volume II: Natural Systems.
- Volume III: Space, Place & Structures.
- Volume IV: Infrastructure.
- Volume V: Services.
- Volume VI: Summary of Findings.

The data collection methodology and approach are described in Volume I, which includes commentary on the challenges of completing the Existing Conditions Assessment during the COVID-19 Global Pandemic.

This Volume also uses information reported in the accompanying:

- Social and Economic Investment Plan report.
- Climate Vulnerability Impact Assessment report.

This project is funded by the Caribbean Development Bank under the Rehabilitation and Reconstruction Loan Hurricane Irma Project, with the report tailored for the Government of Antigua and Barbuda (GOAB), Barbuda Council, and Barbuda residents.



**VOLUME 1:
GOVERNING POLICY**

Translating the vision into policies and strategies guided by principles of sustainability and resilience.



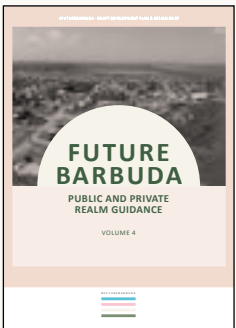
**VOLUME 2:
DRAFT DESIGN BRIEF**

The emerging Design Brief for Codrington and defined local areas outlining the design goals and objectives, constraints, special analysis.



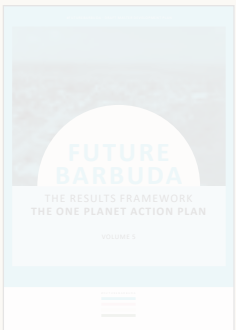
**VOLUME 3:
CONCEPT DESIGN,
STRATEGIES & PLANS**

A series of plans presenting the concept design for Barbuda, Land Use, Built Form and strategies.



**VOLUME 4:
PUBLIC AND PRIVATE
REALM GUIDANCE**

Codes and policies governing the public and private realms, shaping the physical environment.



**VOLUME 5:
THE RESULTS
FRAMEWORK**

The implementation and institutional framework utilising One Planet as a providing objectives, actions and responsibilities.

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DRAFT
NOVEMBER 2023

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HOW TO USE DESIGN GUIDELINES

DESCRIPTION

A brief overview of the subsection topic and its importance in the future of Barbuda

GOAL

One or two statements about what we aspire to achieve with respect to this topic

MEASURE FOR SUCCESS

These are the items we will use to measure progress towards achieving the goal. In many cases the listed items need refinement but should be considered a first step towards developing more quantifiable measures will help to elevate the level of conversation about the topic and add an element of accountability to the plan.

LAND USE AND DESIGN PRINCIPLES

The principles provide guidance on how development should take shape when addressing the topic. They will be used to elevate development proposals when using land use and design requests.

VOL 4 - DRAFT DEVELOPMENT PLAN & DESIGN BRIEF FOR BARBUDA
PUBLIC REALM GUIDANCE

CENTRES AND CORRIDORS

Every community has a place where citizens may gather to meet and interact in a variety of ways. Each of the places can be organised into one of two categories – Centres and Corridors. These places offer a multitude of activities to draw people together and keep them engaged, from daily shopping to places of worship. These places have different needs influenced by their context and the communities that utilise the amenities available. Each place is unique, and policies must be flexible enough to foster and encourage the natural growth of all these places.

THE GOAL

Create a variety of active and accessible places to serve as a focal point for the community and orientate visitors.

MEASURE OF SUCCESS

Identify and establish place types for Centres and Corridors by 2025	Develop adopted local plans by 2027	Centres and corridors will have pedestrian and bicycle connections to the surrounding community.
--	-------------------------------------	--

Land Use and Design Principles

DESIGN	Walking and cycling encouraged to local centres supporting healthy lives.
DESIGN	Encourage 'active frontages' from shops, cafes and businesses that accommodate Barbudan life with external spaces for cafe seating and external displays.
LAND USE	Shops and essential infrastructure, such as schools should be close proximity to the centre and corridors.
DESIGN	Attractive walking and cycling corridors and public spaces with shade trees, benches etc to promote active use of public realm.

Suggested Lead

WORKS & GENERAL PURPOSES

One Planet

Tools: Recommended Policies & Actions

PLANS
Define Centres & Corridors. Link to 15-min neighborhoods. Create tailored urban plans, reflecting each location's unique characteristics. Incorporate local input for alignment with residents' preferences.

CODES
Support Mixed-Use. Develop zoning rules for diverse activities in Centres & Corridors. Apply design guidelines for harmonious development.

GOVERNANCE
Improve local governance and policies for vibrant Centres & Corridors. Involve the community in decision-making.

FINANCING
Secure Funding. Obtain investment for infrastructure, beautification, and amenities. Explore public-private partnerships and grants.

PARTNERSHIPS
Collaborate for Activation. Engage government, businesses, nonprofits, and experts for joint investment and activation. Leverage urban planners' expertise.

KNOWLEDGE
Inform Decision with Data. Research usage patterns in Centres & Corridors. Use insights for future planning.
Raise Awareness. Organise programs on inclusive public spaces' significance for community interaction and cohesion.

Existing Policy Documents and Maps

- [Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)
- [Public Works and Road Act](#)
- [Public Utilities Act](#)

Performance at the Fisheries in 2023
Source: Future Barbuda

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TOOLS: RECOMMENDED POLICIES & ACTIONS

A list of items that utilise the categories from the Tools layer (plans, codes, One Planet Action Plan, governance, financing, partnerships, knowledge) that provide a summary of what will be done to help the goal.

EXISTING POLICY DOCUMENTS AND MAPS

Links to relevant information

SPOTLIGHT

The spotlight profile places in Barbuda that are already helping achieve the goal. They are meant to celebrate the many community assets that Barbuda already has in place and serves as an example that can be followed.

ENVIRONMENTAL PROTECTION AREAS

Environmental Protection Areas, which include the Codrington Lagoon RAMSAR and marine protected areas, stand as vital sanctuaries committed to preserving and safeguarding our planet’s ecosystems. These areas are dedicated to nurturing and conserving biodiversity and enhancing ecosystem health. One of their central principles is to retain and protect essential landscapes, reducing vulnerability to climate change and natural disasters. These sanctuaries serve as resilient havens, shielding against environmental challenges and ensuring the long-term well-being of both ecosystems and the communities that depend on them.

THE GOAL

To maintain and enhance ecosystem integrity, retaining and safeguarding vital marine and terrestrial landscapes to reduce the impact from climate change and natural disasters.

MEASURE OF SUCCESS

Measure the increase in the diversity and abundance of native plant and animal species within the protected area.

Area of sensitive and important Barbuda Environments from the marine to the terrestrial protected and actively manged.

Measured improvement in overall health of the ecosystem, including water quality, soil health, and invasive species management.

Land Use and Design Principles

- DESIGN

Develop an ecosystem catalogue plan to establish a baseline for planning and protection efforts. This plan should detail the various ecosystems present and their significance.
- DESIGN

Develop carrying capacity plans to determine sustainable levels of human activity in these ecosystems, ensuring their long-term viability.
- LAND USE

Implement land use and zoning plans that prioritise the protection of sensitive and significant watershed and ecosystems, ensuring that development activities are in harmony with the environment.
- LAND USE

Utilise local knowledge to guide planning efforts, recognising that the local community possesses valuable insights into the needs and requirements for environmental conservation.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet

Sustainable Water

Local & Sustainable Food

Land Use & Wildlife

Culture & Community

Equity & Local Economy

Health & Happiness

Tools: Recommended Policies & Actions

KNOWLEDGE

Local knowledge to guide planning as local community is very clear in their needs and requirements for environmental conservation.

Launch educational campaigns and programs to raise awareness about the importance of environmental protection and sustainable living among visitors, residents, and stakeholders. Use signage, interpretive centres, and outreach initiatives to convey key messages.

PLANS

Island land use and development plans should recognise Barbuda’s natural ecosystems and social environmental resources.

GOVERNANCE

Create a Barbuda National Park System of protected and conservation lands.

Promote sustainable tourism practices that minimise the environmental footprint of visitors. Develop eco-friendly transportation options, enforce responsible visitor behaviour codes, and support businesses that adopt sustainable tourism practices.

CODES

Establish building codes to encourage ecosystem creation in new developments.

Establish enforceable codes specifically designed for ecosystem protection, outlining permissible activities and restrictions to preserve these areas.

PARTNERSHIPS

Forge partnerships with international organisations government agencies, NGOs, and research institutions to leverage expertise, funding, and support for conservation initiatives in the protected area.

FINANCING

Central Government Financing / Public gain financing from private development projects

ONE PLANET

Utilise One Planet Action Plan as a tool to gather international attention to the unique ecosystem in Barbuda and the need for protection.

Establish a robust monitoring and reporting system to track progress toward One Planet Living goals. Regularly assess the environmental, social, and economic impacts of conservation efforts and adjust strategies as needed.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)



ENVIRONMENTAL RESOURCE AREAS

Prioritising the preservation and responsible stewardship of Environmental Resource Areas, which include diverse landscapes like the Highlands, salt ponds, hunting grounds, grazing lands, and, notably, watersheds and groundwater, is of utmost importance for the betterment of both the environment and the local community.

THE GOAL

To safeguard and enhance these ‘common lands’ through the establishment of sound land and resource management practices, guided by the collective stewardship of the local community.

MEASURE OF SUCCESS

Amount of resource area actively protected and managed	Monitoring and managing feral domestic animals.	Monitoring and measuring quality and health of groundwater.
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Land Use and Design Principles

- DESIGN** Formulate policies that promote best agricultural practices within these areas, emphasising sustainable and responsible farming methods.
- DESIGN** Introduce and encourage alternative agricultural practices such as organic agriculture, permaculture, and emerging technological approaches that prioritise environmental sustainability.
- DESIGN** Develop comprehensive design guidelines for any new development within these resource areas, ensuring that such projects harmonise with the natural environment.
- DESIGN** Provide clear guidelines for managing the potential conflict between roaming animals and ongoing or planned landscape development and agricultural activities. Proposals may include designated areas for containing feral domestic animals.
- LAND USE** Implement land use and zoning plans that prioritise the protection of watersheds and groundwater.
- LAND USE** Designate specific “no development” zones within Environmental Resource Areas, safeguarding them from any form of construction or development that could harm the natural balance.
- LAND USE** Consider the designation of National Parks to provide robust protection for common hunting lands, wetlands, beaches, and the marine environment, preserving their ecological integrity.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet


Sustainable Water


Local & Sustainable Food


Land Use & Wildlife


Culture & Community


Equity & Local Economy


Health & Happiness

Tools: Recommended Policies & Actions

KNOWLEDGE

Develop educational programs and awareness campaigns to educate local communities and stakeholders about the importance of responsible resource management and sustainable agricultural practices.

PLANS

Develop comprehensive land use plans that effectively control conflicting land uses within Environmental Resource Areas.

GOVERNANCE

Consider the designation of National Parks to provide robust protection for common hunting lands, wetlands, beaches, and the marine environment, preserving their ecological integrity.

Develop governance structures that enable the local community to actively participate in the management and stewardship of Environmental Resource Areas.

CODES

Formulate policies aimed at promoting best agricultural practices within these areas, emphasising sustainability and responsible farming methods.

PARTNERSHIPS

Collaborate with local and international conservation organisations, government agencies, and community groups to leverage expertise, funding, and support for the sustainable management of Environmental Resource Areas.

FINANCING

Explore financing options and incentives to support the adoption of sustainable and environmentally friendly agricultural practices within these areas.

ONE PLANET

Utilise One Planet Action Plan as a tool to gather international attention to the unique resources in Barbuda and how to develop products for both a local and international market.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)



The Salt Ponds in Barbuda.
Source: Future Barbuda

FARMING & AGRICULTURE

Future development of Barbuda should include food sovereignty and independence which could also include export of specialty products.

THE GOAL

To support the food and agricultural sector by the protection of the agricultural land base, preventing the fragmentation of good quality agricultural land and developing sustainable agricultural practices, all with the aim of increasing food security.

MEASURE OF SUCCESS

Increased level of self-sufficiency from local agricultural produce

Land Use and Design Principles

- LAND USE

Identify and protect prime arable lands.
- DESIGN

Promote research into and uptake of new agricultural practices.
- DESIGN

Emphasis on resilient crops.
- DESIGN

Promote organic farming.
- DESIGN

Support and develop livestock operations.
- DESIGN

Seek to link agriculture to tourism e.g., farm to table.
- LAND USE

Include the idea of back yard farming, community and urban farming in future development models.
- DESIGN

Promote high technology farming and development of new crops.
- DESIGN

Develop re-generative agriculture models that are suitable to Barbuda environment. E.g. Permaculture / Food Forestry / Aquaculture
- DESIGN

Agricultural development should also include plant and grass nursery industries to supply the local and adjacent markets. Products could be specialised for coastal tropical environments to service specialised environmental niche markets. E.g.. Endemic island plants for landscaping and environmentally appropriate grass species. Development of a unique horticulture industry which is forward thinking to regional and global issues.
- DESIGN

Agricultural development should include inclusion in public space landscapes.
- DESIGN

Agriculture development should include heritage plant species traditionally used for medicinal purposes.
- DESIGN

As part of island re-cycling encourage island composting as an input to an agricultural development strategy
- DESIGN

As part of a coastal environmental protection strategy encourage the development of aqua-cultural development.
- DESIGN

Sustainable agricultural development should include the development of farmer markets and agro-processing of produce for local and regional consumption.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet

Sustainable Water

Local & Sustainable Food

Land Use & Wildlife

Culture & Community

Equity & Local Economy

Health & Happiness

Zero Waste

GOVERNANCE

- Tax incentives to allow for project development
- Skills training and business development support for existing producers and new start-ups

PARTNERSHIPS

Sourcing of international funding as it relates to sustainable agriculture and climate change.

CODES

Land use ordinances that protect agricultural productive lands and promotes integration of agriculture into development

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)



Local farm
Source: Future Barbuda

ENVIRONMENTAL AND FLOOD RISK

The ever-present risk of flooding from rising sea levels, tropical storms, and hurricanes poses a significant environmental challenge. These environmental risk areas demand a proactive approach to minimise the impact on ecosystems and communities while ensuring resilience and adaptability. The goal is to effectively manage and mitigate flood risks while preserving the ecological integrity of these vulnerable zones.

THE GOAL
To mitigate exposure to flood risk and natural disasters on Barbuda

MEASURE OF SUCCESS
Reduced exposure levels on the CRVA Risk and Vulnerability charts.

Land Use and Design Principles

- DESIGN

Incorporate an adaptive framework into Barbuda’s development, recognising flood and other environmental risks, and shaping development in a responsive and complementary manner. Ensure that new construction and critical infrastructure within Environmental Risk Areas are designed to be resilient against flooding. This includes elevated foundations, flood-resistant building materials, and sustainable stormwater management systems.
- DESIGN

Promote ecosystem-based design principles. Include the preservation and restoration of natural flood buffers like mangroves, wetlands, and dunes. Integrate nature-based solutions into infrastructure planning.
- LAND USE

Restrict residential, economic, and critical uses within flood-risk areas. Develop comprehensive land use plans that strictly control development in high-risk flood areas. Designate specific “no development” zones in these areas to prevent construction that could exacerbate flood risks.

Tools: Recommended Policies & Actions

CODES

Enact purpose-specific zoning for the flood risk areas and illustrate them on legal maps.

Enact area-specific zoning overlays that restricts certain sensitive land uses in the flood-risk areas. These may include:

- Residential uses
- Institutional Uses (schools, health, public services)

Enact policies requiring re-examination of flood risk areas on a recurring basis (5-10 years) to ensure continued validity of flood mapping.

PLANS

Recognize flood risk and adopt planning policies restricting new development in these areas and requiring engineered adaptation measures where applicable.

GOVERNANCE

Establish a centralized authority or committee responsible for coordinating flood response and management efforts across Environmental Risk Areas. Ensure effective communication, resource allocation, and disaster response coordination.

FINANCING

Allocate dedicated funding for flood risk reduction projects, infrastructure improvements, and community resilience programs within Environmental Risk Areas. Explore partnerships with international organisations for financing support.

PARTNERSHIPS

Foster partnerships with local communities to actively engage them in flood resilience initiatives. Involve residents in planning, decision-making, and the implementation of flood risk reduction strategies.

KNOWLEDGE

Launch educational campaigns to raise awareness among residents about flood risks, preparedness, and evacuation procedures. Promote a culture of resilience within communities.

ONE PLANET

Align flood risk reduction efforts with sustainability principles, emphasising resource efficiency and minimal environmental impact. Consider eco-friendly building materials, renewable energy sources, and sustainable land use practices in flood mitigation projects.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Environmental Protection Levy Act, 2002](#)

Suggested Lead

HEALTH , SOCIAL
WELFARE & DISASTER
PREPAREDNESS

One Planet

- Sustainable Water
- Local & Sustainable Food
- Land Use & Wildlife
- Culture & Community
- Equity & Local Economy
- Health & Happiness

Flooding at Harry’s after heavy rain in Autumn 2022

WATER SUPPLY

Drinking water, natural water, resource management

Barbuda maintains a high quality freshwater supply in the island aquifers. Development of the island is managed to protect the islands water supply.

THE GOAL

To preserve Barbuda’s freshwater resources and sustainably manage water resources for a high quality and reliable natural water supply.

MEASURE OF SUCCESS

Future water supply is based on the available natural resources and reduces the island’s reliance on unsustainable solutions such as high-cost desalination plants.	New infrastructure is developed that provides a cost-effective water supply which meets current and future water demand and is resilient against the impacts of climate change.	Water quality meets or exceeds water quality targets monitored by the Department of Environment.
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Land Use and Design Principles

- DESIGN

Water efficient building design is mandated for all new infrastructure to reduce water demand, reduce the need for additional water infrastructure and reduce operating costs.
- DESIGN

Improve the water efficiency of residential, commercial and public buildings when redeveloped or retro-fitted.
- DESIGN

Use drought tolerant native and endemic vegetation for all landscaping.
- DESIGN

Utilise green infrastructure to manage surface water runoff to aquifer recharge areas and holding ponds.
- LAND USE

Development of land which overlies freshwater aquifers and land which contains surface water features is significantly controlled or prohibited, to protect the island’s natural water supply.

Tools: Recommended Policies & Actions

KNOWLEDGE

Identification of freshwater features (surface water and groundwater) that need protecting on Barbuda, with the support of data from a Water Resource Management Plan for the island.

PLANS

A Water Resource Management Plan (strategy) supported by a high-quality assessment of the island’s water resources should be given the highest priority to protect freshwater resources on Barbuda. This information is urgently needed to support the sustainable development of zones identified in the Masterplan.

GOVERNANCE

”The Highlands” should be designated a protected watershed under Section 59, Schedule V of the Environmental Protection and Management Act 2019. The Highlands are the principal area for groundwater recharge on the island and should be protected to ensure the security of the island’s fresh water supply.

Barbuda Council should establish a working relationship with APUA Water Business Unit and the Department of Environment to align water supply, wastewater management and water protection duties and activities.

The Department of the Environment, APUA and Barbuda Council need to define a water resource management and protection hierarchy on Barbuda and identify standards for water quality (drinking water and discharged wastewater).

Ensure delivery of the following necessary conditions identified within the 2016-2020 Medium-Term Development Strategy (2015):

NC1.4.2 - Action 8: Improve access to and generation of water for irrigation.

NC1.4.5 - Action 5: Green Standards for the use of solar power and water storage.

NC1.6 - Action 8: Intensify efforts to improve efficiency in the provision of utilities – electricity, water and telecommunication.

NC1.6 - Action 9: Expand water generation capacity.

NC3.1.1 - Ecosystems management.

NC3.1.2 - Water resource management.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Public Utilities Act](#)



WATER RESOURCE REGULATION

Drinking water, natural water resource management

Development of the island is regulated to protect the aquifers, dolines, ponds and historic wells of the island to ensure a low cost, sustainable water supply for drinking water, agricultural and commercial use.

THE GOAL

To enforce existing nationally recognised standards for drinking water and agricultural water on Barbuda by the Department of Environment through the regular testing of fresh water and regulated/unregulated discharges of wastewater and unauthorised pollutants.

MEASURE OF SUCCESS

Develop and implement management plans and regulations to protect the island’s freshwater supplies and safeguard the water supply from the impacts of climate change.

Land Use and Design Principles

- LAND USE

Development of land which overlies freshwater aquifers and land which contains surface water features is significantly controlled or prohibited, to protect the islands natural water supply.
- DESIGN

Water efficient building design is mandated for all new infrastructure to reduce water demand, reduce the need for additional water infrastructure and reduce operating costs.
- DESIGN

Improve the water efficiency of residential, commercial and public buildings when redeveloped or retro-fitted.
- DESIGN

Use drought tolerant native and endemic vegetation for all landscaping.

Suggested Lead

HEALTH , SOCIAL
WELFARE & DISASTER
PREPAREDNESS

One Planet

Sustainable Water

Local & Sustainable Food

Equity & Local Economy

Health & Happiness

Tools: Recommended Policies & Actions

PLANS

The 2011 Sustainable Island Resource Management Zoning Plan (SIRMZP) identified water resources as a central part of the vision for the situation on Barbuda in 2030:

“The concept of sustainable development underlies all development activities and ensures that the integrity of environmental systems is maintained. Consequently, sensitive environmental areas, such as wetlands, mangrove forests, sea grass beds, and coral reefs are protected from development while resource-based activities, such as water extraction, agriculture, fishing, quarrying and waste management are controlled. Innovative technologies are used to ensure an adequate supply of water for agriculture and other uses.”

GOVERNANCE

Barbuda Council should establish mechanisms to work with APUA Water Business Unit and the Department of Environment to align water supply, wastewater management and water protection duties and activities.

The Department of the Environment, APUA and Barbuda Council need to define a water resource management and protection hierarchy on Barbuda and identify standards for water quality (drinking water and discharged wastewater).

Ensure delivery of the following necessary conditions identified within the 2016-2020 Medium-Term Development Strategy (2015):

- NC1.4.2 - Action 8: Improve access to and generation of water for irrigation.
- NC1.4.5 - Action 5: Green Standards for the use of solar power and water storage.
- NC1.6 - Action 8: Intensify efforts to improve efficiency in the provision of utilities – electricity, water and telecommunication.
- NC1.6 - Action 9: Expand water generation capacity.
- NC3.1.1 - Ecosystems management.
- NC3.1.2 - Water resource management.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Public Utilities Act](#)



Water well with solar pump, Codrington
Source: Future Barbuda

WASTEWATER DISCHARGES AND POLLUTION

The island’s freshwater aquifers and surface water features need to be protected from residential, agricultural and commercial sources of pollution.

THE GOAL

Treat, manage and use wastewater and related infrastructure efficiently and economically and formulate a Wastewater Management Plan to control sewage and commercial/industrial discharges.

MEASURE OF SUCCESS

Collect, treat and discharge wastewater that meets or exceeds national water quality standards in a manner which protects public health and the natural water environment.	Maximise the beneficial use of grey water and treated wastewater to reduce the amount of water treated for potable use and preserve fresh water supplies for drinking water.	Develop new wastewater infrastructure that efficiently and economically accommodates the needs of the island residents and safeguards the water supply from the impacts of climate change.
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Land Use and Design Principles

DESIGN	Identify and select options to treat wastewater using techniques which prevent the contamination and degradation of the island’s natural freshwater resources.
DESIGN	Collect rainfall runoff from all building roofs to reduce the volume of treated water used for grey water purposes e.g. toilet flushing, washing, irrigation, vehicle washing etc.
DESIGN	Water efficient building design is mandated for all new infrastructure to reduce wastewater volumes, reduce the need for additional water infrastructure and reduce operating costs.
DESIGN	All new buildings must incorporate wastewater treatment systems, either on-site or connected to a larger neighborhood or broader municipal system, contingent upon the chosen option. Consideration of development incentives for the construction of centralised wastewater treatment systems should be explored explored, potentially as planning gain in commercial development

Suggested Lead

HEALTH , SOCIAL
WELFARE & DISASTER
PREPAREDNESS

One Planet



Tools: Recommended Policies & Actions

GOVERNANCE

Barbuda Council should establish a working relationship with APUA Water Business Unit and the Department of Environment to align water supply, wastewater management and water protection duties and activities.

The Department of the Environment, APUA and Barbuda Council need to define a water resource management and protection hierarchy on Barbuda and identify standards for water quality (drinking water and discharged wastewater).

Ensure delivery of the following necessary condition identified within the 2016-2020 Medium-Term Development Strategy (2015):

- NC3.3 – Waste management and pollution control.

CODES

Where possible use enforcement through the development planning legislation to reduce the risk of pollution to water resources from wastewater discharge.

Introduce standards for industrial wastewater discharges associated with the discharge of highly saline brine from reverse osmosis water treatment plants.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)



APUA River Reverse Osmosis Water Storage Tank for treated water
Source: Future Barbuda

CENTRES AND CORRIDORS

Every community has a place where citizens may gather to meet and interact in a variety of ways. Each of the places can be organised into one of two categories – Centres and Corridors. These places offer a multitude of activities to draw people together and keep them engaged, from daily shopping to places of worship. These places have different needs influenced by their context and the communities that utilise the amenities available. Each place is unique, and policies must be flexible enough to foster and encourage the natural growth of all these places.

THE GOAL

Create a variety of active and accessible places to serve as a focal point for the community and orientate visitors.

MEASURE OF SUCCESS

Identify and establish place types for Centres and Corridors by 2025	Develop adopted local plans by 2027	Centres and corridors will have pedestrian and bicycle connections to the surrounding community.
--	-------------------------------------	--

Land Use and Design Principles

- DESIGN

Walking and cycling encouraged to local centres supporting healthy lives.
- DESIGN

Encourage ‘active frontages’ from shops, cafes and businesses that accomadate Barbudan life with external spaces for cafe seating and external displays.
- LAND USE

Shops and essential infrastructure, such as schools should be close proximity to the centre and corridors.
- DESIGN

Attractive walking and cycling corridors and public spaces with shade trees, benches etc to promote active use of public realm.

- Tools: Recommended Policies & Actions

PLANS

Define Centres & Corridors. Link to 15-min neighborhoods. Create tailored urban plans, reflecting each location’s unique characteristics. Incorporate local input for alignment with residents’ preferences.

CODES

Support Mixed-Use. Develop zoning rules for diverse activities in Centres & Corridors. Apply design guidelines for harmonious development.

GOVERNANCE

Improve local governance and policies for vibrant Centres & Corridors. Involve the community in decision-making.
- FINANCING

Secure Funding. Obtain investment for infrastructure, beautification, and amenities. Explore public-private partnerships and grants.
- PARTNERSHIPS

Collaborate for Activation. Engage government, businesses, nonprofits, and experts for joint investment and activation. Leverage urban planners’ expertise.
- KNOWLEDGE

Inform Decision with Data. Research usage patterns in Centres & Corridors. Use insights for future planning.

Raise Awareness. Organise programs on inclusive public spaces’ significance for community interaction and cohesion.

- Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Performance at the Fisheries in 2021
Source: Future Barbuda

OPPORTUNITY SITES

The ‘Opportunity Sites’ designated in Plans - Volume 3 have the potential to bring about a significant transformation in the well-being of the community and the functioning of Barbuda’s future. These sites unlock a future where Barbuda’s history converges with a promising and sustainable tomorrow.

By forging a collaborative framework involving local stakeholders and the community, we can nurture the evolution of these Opportunity Sites under a unified vision, enhancing their contribution to the betterment of Barbuda. These sites should pinpoint not only infrastructure requirements but also lay out objectives and actions encompassed by the One Planet Action Plan.

THE GOAL

To promote investment in strategic areas that promote realisation of the vision, driven by a community-driven and collectively shaped plan.

MEASURE OF SUCCESS

Number of actions realised under the One Planet Action Plan

Number of partners identified in the One Planet Action Plan to help deliver Opportunity Areas

Land Use and Design Principles

- DESIGN

Identify and develop a plan for opportunity sites in land use plans with local stakeholders and the Barbudan community.
- LAND USE

Support a reasonable level of increased intensity, respectful of local conditions and surrounding neighbourhoods and designate in land use plans.
- LAND USE

Promote and encourage compatible development and in-fill development with a mix of housing types in neighbourhoods close to employment centres, commercial areas, and where local centres are near a 15 minutes walk or cycle.

Tools: Recommended Policies & Actions

- PLANS

Develop and agree comprehensive plans for each designated opportunity site, outlining the vision, goals, and development guidelines for these areas.

Ensure that the plans align with the overall sustainable development goals of Barbuda and promote inclusive, resilient, and environmentally friendly development.
- CODES

Establish zoning codes and development regulations specific to each opportunity site, guiding the types of activities, building designs, and land uses that are allowed within these areas.

Implement design standards that prioritise sustainable practices, energy efficiency, and architectural harmony to enhance the overall quality of development.
- GOVERNANCE

Strengthen local governance and engage stakeholders in progressing opportunity sites.

Create a planning authority or committee for plan oversight and development review.

- FINANCING

Secure funding and investment for infrastructure development, amenities, and community facilities within the opportunity sites.

Explore financing options, such as public-private partnerships, grants, or impact investment, to attract investors and support the sustainable growth of these areas.
- PARTNERSHIPS

Foster government, private sector, NGO, community collaborations utilising One Planet Living Action Plan.

Engage international partners for expertise and funding where appropriate.
- KNOWLEDGE

Conduct research and data analysis to understand the specific needs and potentials of each opportunity site.

Provide training and capacity-building programs for local stakeholders to ensure they are informed and engaged in the development process.

- Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



The Fisheries Complex
Source: Future Barbuda

KNOWLEDGE INFRASTRUCTURE

Schools and resources, such as libraries and museums provide a foundation for learning in the community. These facilities need to be easily accessible to the community and provide multifunctional spaces that allow for lifelong learning.

Technology is vital to the way we learn and gather knowledge and essential to how we communicate with the world. We need to plan for our future technology needs by being flexible enough to allow for new technology which has not yet been discovered, while still embracing the technology we have today.

THE GOAL

To establish a policy framework that seeks to enhance and develop existing knowledge infrastructure and identify gaps in provision, all while securing funding for crucial upgrades.

MEASURE OF SUCCESS

Number of residents participating in lifelong learning.

Access to Internet and on-line education.

Land Use and Design Principles

- DESIGN

Establish a library on Barbuda.
- DESIGN

Identify how best to support improved broadband technology and if this could be incorporated into new road design.
- LAND USE

Identify future school sites, including spaces for continuing education and potentially space for universities to set up a remote education site.
- DESIGN

Provide space for training and skills development for government, businesses, employees, links to higher education providers in Antigua.
- DESIGN

Develop a Barbudan museum as a feature for local knowledge and identity and as a visitor attraction and awareness raising facility.

Suggested Lead

EDUCATION

One Planet



Culture & Community



Equity & Local Economy



Health & Happiness

Tools: Recommended Policies & Actions

PLANS

Develop comprehensive educational plans considering location placement for libraries and museums, and multifunctional spaces for lifelong learning.

Consider strategy for The Holy Trinity Primary School, relocation and reuse of existing school site for alternative education site.

CODES

Establish sustainable building codes to accommodate innovative learning environments. For instance, a building code could mandate the inclusion of solar panels, efficient HVAC systems, and smart metering systems in new constructions.

GOVERNANCE

Create a policy framework for knowledge infrastructure development, addressing gaps and upgrades.

Include professional development training for public and private employees and enterprises linking into training and skills development on Antigua

FINANCING

Source funding from government and private sector partners for life long learning and establishing new institutions, such as a museum and/or library.

Consider need for stand alone facilities or where sharing spaces and staff provide better value.

Explore public-private partnerships and grants to support technology integration and educational facility improvements.

PARTNERSHIPS

Foster collaborations between educational institutions including universities, technology companies, and community organisations utilising the **One Planet Action Plan**.

Partner with telecom providers to leverage ‘right of way’ for broadband infrastructure placement.

KNOWLEDGE

Conduct research on evolving educational technology trends and their potential applications and provide ongoing training for educators to effectively integrate technology in teaching.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



The Sir McChesney George Secondary School

Source: Future Barbuda

CRITICAL INFRASTRUCTURE

Barbuda faces challenges in maintaining and enhancing critical infrastructure, including public works, healthcare, banking services, broadband connectivity, and insurance access. The lack of collaboration and communication between the Barbuda Council and the GOAB Ministry of Public Works has resulted in poor infrastructure maintenance. Additionally, healthcare services, dental care, welfare services, and banking options require improvement. Broadband connectivity and access to insurance products are also essential for future resilience.

THE GOAL
To strengthen critical infrastructure and services on Barbuda for an equitable and sustainable future.

MEASURE OF SUCCESS		
Number of / percentage of completed maintenance projects.	Availability of medical services measured by the number of days qualified healthcare professionals are on Barbuda.	Number of new banking institutions or services introduced on the island.

Land Use and Design Principles

- DESIGN** Conduct a feasibility study to identify the need for a new health facility or phased decant of existing healthcare Centres to area more resilient to flooding and natural disaster.
- DESIGN** Establish healthcare facilities with state-of-the-art equipment and sufficient capacity to meet the growing healthcare demands of the community.
- LAND USE** Identify sites for future critical infrastructure requirements, including energy, water and waste water, communications, emergency services, government services, heathcare, food and agriculture and information technology.
- LAND USE** Establish a model for sustainable development that mitigates the impacts of climate change and enhance the resilience of critical infrastructure through land use planning.

Suggested Lead

WORKS & GENERAL PURPOSES

One Planet



Tools: Recommended Policies & Actions

PLANS

Agree a comprehensive infrastructure plan including maintenance with regular inspections and repairs, as well as future needs.

Conduct a thorough review of welfare services to identify areas for improvement.

GOVERNANCE

Ensure regular meetings and consultations for improved coordination in infrastructure development.

Establish local diagnostic testing capabilities to reduce need for off-island travel for medical tests.

Provide comprehensive dental services or increase the frequency of dental visits.

Develop targeted welfare programs for vulnerable groups.

Promote community well-being and inclusivity through social services and support structures.

FINANCING

Allocate sufficient resources for infrastructure maintenance and timely repairs.

Secure funding for medical diagnostic equipment.

PARTNERSHIPS

Foster collaboration utilising the **One Planet Action Plan**.

Collaborate with local contractors and skilled workers for infrastructure upkeep.

Establish partnerships with regional medical institutions for specialised care.

Collaborate with dental professionals and organisations for regular visits and accessibility to dental care.

Partner with telecommunication providers for high-speed broadband connection.

Foster partnerships with local and regional insurers for tailored insurance products.

KNOWLEDGE

Promote financial literacy and education for Credit Union services.

Raise awareness about the importance of insurance coverage and accessible options.

Conduct oral health awareness campaigns and preventive dental care programs.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Environmental Protection Levy Act, 2002](#)

[National Parks Act](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Hanna Thomas Hospital
Source: Future Barbuda

CIVIC, CULTURE & ART SPACES

Barbuda has a **rich history which needs to be preserved** despite recent upheaval.

The main objective for Barbuda’s future civic, cultural, and art spaces should be to create inclusive and vibrant **hubs that foster community engagement, celebrate local heritage, encourage artistic expression, and contribute to the overall well-being and identity of the residents.**

THE GOAL
To create an environment that celebrates Barbuda’s cultural heritage and embraces contemporary culture, bringing together traditional identities and modern aspirations

MEASURE OF SUCCESS
Resurgence of traditions (song, dance, festivals, hunting etc) | Emergence of contemporary/ neo-artforms.

Land Use and Design Principles

- DESIGN** Utilisation of existing, spontaneous nodes for culture/art centres.
- DESIGN** Consider alternatives to the massive structure/gymnasium types to help decentralise arts spaces.
- LAND USE** Preservation of traditional camping and hunting grounds.
- LAND USE** Protection and maintenance of cultural heritage sites
- DESIGN** Create design guidance that accommodates traditional activities, such as horse riding, in Barbuda.

Suggested Lead
TOURISM & CULTURE

One Planet



Tools: Recommended Policies & Actions

FINANCING

Allocate a percentage of the budget of new development to support local cultural and arts spaces and projects.

Implement planning gain measures and potential tourism-related charges to support the maintenance of cultural heritage sites and to support local culture and arts activities, projects and spaces

PARTNERSHIPS

Foster collaboration utilising the **One Planet Action Plan** and encourage visiting researchers to engage with the Action Plan so that their observations can be beneficial to the local community.

Develop partnerships with investors and major enterprise on the island to support and develop the cultural heritage and artistic expression on Barbuda.

KNOWLEDGE

Civic halls for sports and refuge also to be used as arts spaces, multipurpose space.

Establish a virtual and / or physical museum to share Barbuda’s story to a wider audience.

GOVERNANCE

Implement planning gain measures and potential tourism-related charges to support the maintenance of cultural heritage sites and to support local culture and arts activities, projects and spaces

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Fisheries Pavilion at the centre of Barbuda’s nautical culture
Source: Future Barbuda

ENTREPRENEURS & SMALL BUSINESS

Local and small businesses are the fabric of our community. Barbuda’s success depends on these enterprises and the plan should work hard to support them.

Barbudans are seeking **opportunities for creative outlets and economic sustenance**. To assist entrepreneurs, access to other small businesses, suppliers and support facilities are crucial to their success. New businesses need support to increase the likelihood of their sustained success.

THE GOAL

To promote small business and entrepreneurship to foster economic development and engaging livelihoods

MEASURE OF SUCCESS

Availability of relevant support mechanisms for small businesses on Barbuda.

Number of new businesses started and spaces for commerce and testing enterprise.

Number of successful local businesses with varied products and services.

Land Use and Design Principles

- LAND USE

Identify location for training and support, such as a local college, to support business development and entrepreneurship, small business development, customer service, marketing etc.
- LAND USE

Create centres for commerce.
- DESIGN

Improve and expand telecommunications to enable small businesses and support tourism initiatives.
- DESIGN

Expand local banking services to enable small businesses and support tourism initiatives.
- DESIGN

Accessible entrepreneurial hubs should be designated and created close to settlements.
- DESIGN

Consider use of existing vacant buildings for ‘pop up’ businesses if located in central areas.

Suggested LeadOne Planet

WORKS & GENERAL PURPOSES



Tools: Recommended Policies & Actions

PLANS

Develop plans that support entrepreneurship and small business development in Barbuda, outlining specific measures to promote economic diversification and job creation.

Ensure that the built infrastructure is readily available to encourage entrepreneurs & small businesses.

Designate locations for testing and experimental uses by entrepreneurs.

CODES

Establish business-friendly codes and regulations that streamline the process of starting and operating small businesses in Barbuda.

Implement flexible zoning codes that allow for mixed-use spaces and adaptive reuse of existing structures, fostering a vibrant entrepreneurial ecosystem.

GOVERNANCE

Enhance Barbuda Council to provide a conducive environment for entrepreneurs and small businesses to thrive.

Establish a dedicated small business support unit within the government to provide resources, training, and assistance to aspiring entrepreneurs.

FINANCING

Create financing opportunities for entrepreneurs, such as micro-loans, grants, and incentives, to help them access the capital needed to launch and grow their businesses.

Attract private sector investment by offering tax incentives or matching funds to support small business initiatives.

Encourage financial institutions to establish branches or shared banking facilities.

PARTNERSHIPS

Utilise One Planet to create partnerships among government, local groups, and international agencies for mentorship, workshops, and networking for entrepreneurs.

Collaborate through One Planet with tourism entities to enhance connections between small businesses and tourism, capitalising on the island’s attractions.

Working with BarbudaGo or establishing a new local business partnership for coordinated marketing and events.

KNOWLEDGE

Promote knowledge sharing through workshops and training sessions focused on entrepreneurship and small business management.

Facilitate knowledge exchange between successful entrepreneurs and aspiring business owners to inspire innovation.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Island Chalet Guest House
Source: Future Barbuda



Central Market in Grenada
Source: Sailing Vessel

FISHERIES

Barbuda’s fisheries are governed by the Antigua and Barbuda Fisheries Act of 2006, with the Fisheries Division, led by the Chief Fisheries Officer, overseeing management and development. Simultaneously, the Barbuda Council, under the Barbuda Local Government Act of 1976, manages fisheries aligned with the Fisheries Act. A shift towards participatory management engages fishers and aims to improve compliance, mitigate conflicts, and enhance governance effectiveness. Collaboratively, the Fisheries Division and the Veterinary and Livestock Division address safety measures for seafood products. Challenges include limited marketing services, diversification, technical support, and the absence of local boat building. Integrated marine governance strategies, including Marine Protected Areas, present opportunities for sustainable development. Efforts are ongoing to integrate blue economy knowledge and community participation into decision-making.

THE GOAL
To preserve and develop sustainable fishing and provide adequate support infrastructure for fisher folk

MEASURE OF SUCCESS
Provision of adequate landing, processing and storage facilities. | Number of linkages with hotels and resorts e.g., boat to table

Land Use and Design Principles

- LAND USE

Diversify Fishing Infrastructure: Allocate space for a local marketing facility and boatyard to enhance the fishing industry, promoting fresh fish availability and income opportunities.
- LAND USE

Central Fish Market: Explore the creation of a central fish market/farm market near the Fisheries Complex to support sustainable fishery practices and marketing.
- DESIGN

Develop Marketing Services: Establish marketing services (entrepreneurship, equipment, and facilities) for efficient post-harvest processing and distribution to international and domestic markets.
- LAND USE

Promote Aquaculture: Allow land uses associated with aquaculture around River Dock and potentially in the Codrington Lagoon, alongside the Fisheries Complex, including land-side processing facilities and marine pens.
- DESIGN

Aquaculture Feasibility Study: Initiate a study to introduce saltwater aquaculture, drawing inspiration from successful models in Cuba and Jamaica for a vibrant and sustainable industry.
- DESIGN

Develop initial designs for saltwater aquaculture systems.
- DESIGN

Market Analysis: Focus on assessing viable fisheries stocks suitable for local growth and local markets.
- DESIGN

Expand Regionally: After establishing initial aquaculture businesses, explore expansion opportunities for regional and international markets.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet



Tools: Recommended Policies & Actions

KNOWLEDGE

Enhance Local Capacity: Provide fisher training in data collection, storage, and analysis for fishery management.

Public Education: Involve fishers and educate the public to promote knowledge and sustainable practices.

Entrepreneurship Promotion: Support fishers with opportunities, equipment, and post-harvest processing facilities.

Technical Support: Provide assistance for vessel and equipment maintenance, reducing reliance on external services.

PLANS

Professionalize Fisheries: Implement skill development programs to enhance employment standards in the fishery sector, fostering sustainability.

Market Diversification: Promote diversified markets to reduce economic dependence and enhance resilience.

PARTNERSHIPS

Monitoring & Control Collaboration: Strengthen cooperation between the Fisheries Division and local fishers to enhance monitoring systems.

Business Partnerships: Foster collaborations with local businesses and entrepreneurs to support the fisheries sector.

Boat Building Collaboration: Collaborate with local boat builders to enhance self-reliance.

Governance Partnerships: Establish strong partnerships with governmental and non-governmental entities to improve governance.

GOVERNANCE

Address Fisher Dissatisfaction: Tackle fishers’ dissatisfaction and suspicion by promoting trust and transparency in fisheries governance activities. Foster community participation.

Foster Fisher Involvement: Consider establishing local advisory bodies for direct fisher participation in decision-making.

Administrative Silos: Address administrative silos in marine use governance, especially concerning the relationship between the Fisheries Division and the Ministry of Social Transformation and the Blue Economy.

CODES

Quality Control Systems: Develop comprehensive plans for quality control systems and safe fish and seafood handling. This includes regulatory measures, ice machine maintenance, and infrastructure for storage and marketing.

Code Enforcement: Establish and enforce regulations and codes for the fishing industry, focusing on sustainability, safe practices, and quality assurance.

Environmental Impact Reduction: Implement measures to reduce the environmental impact of fishing activities.

ONE PLANET

Aquaculture Development: Collaborate with stakeholders to explore artisan-scale aquaculture and aquaponics to meet local market demand, including non-traditional species and potential commercial-scale aquaculture for export.

FINANCING

Explore Financing Options: Investigate financing opportunities to support local marketing facilities and technical support services.

Sustainable Financing: Align financing strategies with One Planet Living principles, emphasizing ecological and social sustainability.

Circular Economy Promotion: Encourage a circular economy approach where fisheries revenues circulate within Barbuda, reducing the need for protein imports.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Fisheries Act, 2006](#)



Thriving Aquaculture: Sustainable fish farming practices supporting local communities and environmental conservation.

NEIGHBOURHOODS

Compact, efficient communities

Older neighborhoods in Barbuda demonstrate the value of compact, efficient communities where people can easily reach daily destinations by walking and cycling. The concept of a 15 minute neighbourhood is based in establishing policies that support compact, efficient communities similar to Mulatto Quarter and Park (Bell Village) areas.

Reducing car use and encouraging active travel are central to delivering the 15-minute vision. The 15-minute neighborhood serves as an organising principle for development and daily life that makes life more livable for residents, by making neighborhoods safer, quieter, more diverse, inclusive, liveable and affordable

THE GOAL

To strengthen the communal experience of close-knit Barbuda and make way for their aspirations to flourish and establish a network of 15-minute neighbourhoods.

MEASURE OF SUCCESS

Number of infill schemes in existing settlement that will reduced sprawl, variety in activity, efficient services, more usable green space.	Proportion of daily journeys made through active travel (walking, cycling, etc.)	Variety of activity and efficient services in settlements.
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Land Use and Design Principles

- DESIGN

Seek to maintain and improve pedestrian connections within neighbourhoods.
- DESIGN

Establish density standards.
- DESIGN

Establish setback and building height standards.
- DESIGN

Establish minimal infrastructural standards and design criteria for new development.
- DESIGN

Seek to apply above standard where practicable in existing communities through the identification of development parcels and application of standards to new developments within these areas.
- LAND USE

Assess planning applications on their ability to meet the 15-minute neighbourhood criteria.
- LAND USE

Identify and designate areas within a 15-minute neighbourhood for community facilities.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet

Sustainable Water

Local & Sustainable Food

Land Use & Wildlife

Culture & Community

Equity & Local Economy

Health & Happiness

Sustainable Transport

Zero Carbon

Sustainable Materials

Zero Waste

Tools: Recommended Policies & Actions

PLANS

Develop comprehensive plans that focus on creating self-sustaining neighborhoods where residents can access essential services, amenities, and recreational facilities within a 15-minute walk or bike ride from their homes.

Identify suitable locations for mixed-use developments to ensure a diverse range of services and facilities are available within each neighborhood.

CODES

Establish zoning and building codes that encourage mixed-use development, promoting a balance of residential, commercial, and recreational spaces in each neighborhood.

Encourage sustainable and innovative designs that facilitate walkability, build resilience, prioritise green spaces, and minimize environmental impact.

GOVERNANCE

Empower Barbuda Council and community leaders to actively participate in the planning and decision-making process.

FINANCING

Secure funding from government budgets, grants, and public-private partnerships to support the development and maintenance of infrastructure.

Explore potential financing mechanisms like impact fees, tax incentives, or green bonds to fund sustainable development projects.

PARTNERSHIPS

Use One Planet Action Plan to foster collaborations between government agencies, local businesses, non-profit organisations, and community groups for the successful establishment of 15-minute neighborhoods.

Engage private developers and investors to ensure alignment with the vision and objectives of the One Planet Action Plan.

KNOWLEDGE

Conduct research and data collection to understand the current urban landscape and identify the specific needs of communities in Barbuda.

Promote knowledge sharing and awareness campaigns to educate residents about the benefits of 15-minute neighborhoods.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



INTENSIFICATION

Brownfield Redevelopment, Infill, and Permitted Development

Efficiently utilise and re-purpose vacant lots, abandoned building ruins, and brownfield sites within developed areas to optimise land use, enhance utility and service provision, and foster community growth.

THE GOAL

To encourage compact, efficient, secure and close-knit neighbourhoods and communities similar to historic neighbourhoods in Barbuda.

MEASURE OF SUCCESS

Reduce amount of underutilised land in existing neighbourhoods that are not in risk areas.

Reduced sprawl, efficient land-use, affordable infrastructure, walkability

Reduction in the number of newly demarcated plots

Land Use and Design Principles

- LAND USE

Identify significant brownfield (previous developed) sites and indicate possible development with regard to mix and typology.
- LAND USE

Encourage mixed-use developments that blend residential, commercial, and public spaces to promote vibrant and walkable neighborhoods.
- DESIGN

Emphasize compact building design with an emphasis on two-story structures to maximize land use efficiency.
- DESIGN

Ensure that redevelopment plans respect and preserve the cultural heritage and architectural aesthetics of the area drawing on density of historical Codrington
- DESIGN

Develop comprehensive design guidelines for infill typologies, specifying considerations for building massing, heights, and architectural character.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet



Tools: Recommended Policies & Actions

PLANS

Implement non-traditional subdivision practices in Barbuda, starting with the transformation of vacant, underutilised, or overgrown lots to exemplify mixed land use and dense living.

CODES

Implement zoning and land use codes that support mixed-use development and allow for additional builings or intensification of existing sites.

Establish building and property maintenance codes to address abandoned sites containing ruined buildings. Explore issuing citations, fines, or orders for property owners to repair, renovate, or demolish the ruined buildings to bring them into compliance.

Assess the structural integrity and safety of the ruined buildings to determine if they pose any immediate risks to public safety. If necessary, implement safety measures like fencing, boarding up, or demolition to mitigate hazards.

GOVERNANCE

Establish governance structures ensuring regulation adherence, transparency, and community engagement.

If necessary, consider eminent domain for abandoned properties that pose significant hazards.

Acquire abandoned properties for future development or hold them in a land bank until suitable opportunities arise.

FINANCING

Explore financing options like public-private partnerships and grants to support brownfield redevelopment and infill projects.

Promote rehabilitation and redevelopment through incentives such as tax breaks, grants, or partnerships with developers.

KNOWLEDGE

Foster community engagement through knowledge sharing and awareness campaigns.

Investigate ownership status to determine legal responsibilities and collaborate with private owners as needed.

ONE PLANET

Align intensification efforts with the One Planet framework to enhance sustainability, resource efficiency, and community well-being.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)



RESILIENT CONSTRUCTION

Building control including site & foundation, roofs, walls and openings

Following natural disaster, a stronger Barbuda is one where housing for its people is safe, accessible and familiar. Construction that adheres to existing and accepted building codes, which will ensure that the erected buildings are structurally sound and able to withstand natural disasters.

THE GOAL

To ensure that housing in Barbuda is structurally robust, capable of withstanding natural disasters, and responsive to changing climate conditions, providing Barbudan people with safe and secure homes.

MEASURE OF SUCCESS

Safer housing, characterised by structural soundness and adaptability to the environment.	Number of buildings in poor condition adaptively reused for housing purposes.	Visible and sustained character of the island’s built environment.
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Land Use and Design Principles

- LAND USE

Selection of land parcels that are outside of the pre-determined flood zones and that are not overly exposed to potential high wind speeds.
- LAND USE

Encourage community living / close knit neighbourhood for interdependency of on times of need.
- DESIGN

Ensure in the building process that the main construction components (foundations, walls / beams and columns, roofs) are adequately connected to one another , as it is the junctions that provide the weakest links when not constructed according to accepted building codes.

Suggested Lead

HEALTH , SOCIAL WELFARE & DISASTER PREPAREDNESS

One Planet

Sustainable Water

Local & Sustainable Food

Land Use & Wildlife

Culture & Community

Equity & Local Economy

Health & Happiness

Sustainable Transport

Zero Carbon

Sustainable Materials

Zero Waste

Tools: Recommended Policies & Actions

CODES

Strengthen the enforcement of existing and proposed building codes to ensure that construction adheres to established safety and resilience standards.

GOVERNANCE

Implement a mandatory building approval system to ensure that all construction projects meet safety and resilience requirements.

FINANCING

Access to loans with built-in conditions for the observance of resilient building practices.

PARTNERSHIPS

Partner with known community builders who have established good and safe building practices, referring residents to these trusted sources for construction projects.

KNOWLEDGE

Develop pre-approved design kits that incorporate resilient building practices, making it easier for builders and self-builders to construct safer homes.

Organise construction workshops to educate builders and residents on best practices for resilient construction.

Launch a public campaign focused on safer building practices, providing summarized strategies and information for self-builders.

Provide access to vocational training programs related to the construction industry, enhancing the skills of builders and ensuring the adoption of resilient construction techniques.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Barbuda Coastal Resort Vernacular showcasing climatic adaptation techniques for emulation (source: Future Barbuda)

PUBLIC OPEN SPACES

Parks, gardens and play spaces

The draft Barbuda Development Plan envisions the thoughtful development and maintenance of public open spaces, encompassing public parks, civic squares, recreational areas, trails, bike trails, streetscapes, hunting preserves, coastal landscapes, and beaches. This plan seeks to create a network of open spaces that enhances the quality of life for all residents.

THE GOAL
The provision of safe, accessible and functional open space in each neighbourhood that can be enjoyed by all.

MEASURE OF SUCCESS
Island development that celebrates and enjoys the amenity of access to quality open space environments, both built and natural

Land Use and Design Principles

- LAND USE

Allocate land for open space within existing communities.
- DESIGN

Develop the accessibility and quality of the environments around all heritage sites. Heritage site are to be developed with sensitivity to the heritage component and the natural environment in which it is sited with further design attention to how these sites are integrated into an island wide open space network.
- DESIGN

Prioritise beaches and beach access as part of the Barbuda open space network
- DESIGN

Public access areas to include adequate parking, restroom amenities, access for the disabled and should include significant environmental and sensitive architectural development.
- DESIGN

Ensure all planning is community driven to ensure facilities and spaces are relevant to the Barbuda community and therefore will thrive. Planning should avoid prescribing open space developments that may not be culturally relevant and inclusive of all segments of the society (gender, age, race and sexuality).
- DESIGN

Plan to include quality open space amenity on all new public service facilities eg. Proposed new port, proposed new airport, proposed new roads and to include public space integration with new tourism developments to ensure open space connectivity throughout the island.
- DESIGN

Allocate land for open space within existing communities while simultaneously setting standards for open space layout and design. Establish funding mechanisms for the development, maintenance, and upkeep of these open spaces, ensuring that the design aligns seamlessly with the character of the Barbuda community, both in the built and natural environment.
- DESIGN

Require new residential developments to incorporate provisions for open spaces.

Suggested Lead

LAND, AGRICULTURE & FISHERIES

One Planet



Tools: Recommended Policies & Actions

KNOWLEDGE

Promote community awareness and advocacy for open spaces through educational campaigns and initiatives.

PLANS

Integrate open space master plan as integral components of the Barbuda Development Plan to guide and prioritise development efforts.

GOVERNANCE

Secure partial funding for open space initiatives from public gain financing generated by private development projects.

CODES

Implement and enforce development codes that prioritise open space provision within new residential and commercial projects.

PARTNERSHIPS

Foster collaborations with private stakeholders, tourism developers, and local businesses to invest in and maintain open spaces.

Ensure that all planning is community-driven, guaranteeing that open space developments are culturally relevant and thrive within the Barbuda community.

FINANCING

Partial funding from public gain financing from private development initiatives

Community activities to raise funds and informal development initiatives

ONE PLANET

Utilise One Planet Action Plan as a tool to engage the community and stakeholders to build ‘DIY’ parks, gardens and play spaces.

Align open space development efforts with sustainability principles, emphasising resource efficiency and minimal environmental impact, while promoting a balanced coexistence with nature.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[National Parks Act](#)



The Sports Complex, Codrington
Source: Future Barbuda

RECREATIONAL SPACES AND SPORTS

Barbuda aims to develop a range of recreational spaces for the enjoyment of residents and visitors alike. These spaces encompass both centralised and decentralised facilities to cater to the diverse needs and interests of the community.

THE GOAL

To create recreational spaces that contain facilities and amenities tailored to meet the unique needs of each community on the island, fostering a healthy and active lifestyle.

MEASURE OF SUCCESS

Ability of Barbuda residents to access a variety of recreational facilities, both natural and developed, within their communities.

Land Use and Design Principles

- LAND USE

Locate recreational spaces throughout villages to accessible to all residents and ensuring equitable distribution.
- DESIGN

Formulate a design approach that allows for the multi-purpose use of recreational spaces, accommodating a wide range of activities and interests.
- DESIGN

Include the old airport as part of an open space development plan, re-purposing it for community and recreational use.
- DESIGN

Include the natural environment in sports development. Develop sports initiatives that do not require major infrastructural development Eg. Marine and beach orientated sports. This initiative does not usually have infrastructural costs. Terrestrial sports development could include off road cycling, hiking and trail running.
- DESIGN

Prioritise the upgrade and develop existing facilities where possible eg. Cricket field, horse racing track and school facilities
- DESIGN

Incorporate walking and cycling trails into island circulation development, promoting environmentally friendly and active modes of transportation.

Suggested Lead

SPORTS & YOUTH AFFAIRS

One Planet



Tools: Recommended Policies & Actions

KNOWLEDGE

Promote community awareness and education about the importance of sports and recreation for health and well-being through campaigns and initiatives.

PLANS

Develop a National Sports Policy to support the development of local sports and recreational programs, ensuring alignment with community needs.

GOVERNANCE

Develop National Sports policy to develop local sports.

Engage with Antigua and Barbuda Government to access national coaching for desired sports.

Encourage community engagement in sports and recreation initiatives to raise funds, organise events, and support informal development efforts.

CODES

Engage with the Antigua and Barbuda Government to access national coaching for desired sports, fostering talent development.

Partner with international diaspora and universities to access guest coaching and scholarship opportunities, enhancing Barbuda’s sports capabilities.

PARTNERSHIPS

Engage with international diaspora to access guest coaching.

Engage with international universities to request assistance and scholarship opportunities.

FINANCING

Establish sustainable funding mechanisms for the development, maintenance, and upkeep of recreational spaces, drawing from both public and private sources.

Foster collaborations with private stakeholders, tourism developers, and local businesses to invest in and maintain sports and recreation facilities.

ONE PLANET

Align green infrastructure development with sustainability principles, emphasising resource efficiency, minimal environmental impact, and a harmonious coexistence with nature, in line with the One Planet framework.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[National Parks Act](#)



The Sports Complex, Codrington
Source: Future Barbuda

GREEN INFRASTRUCTURE

Eco-tones / Enhanced Greening, Sustainable Urban Drainage Systems

The vision is to transform Barbuda’s green infrastructure to meet the developmental needs of its residents while fostering environmental natural systems’ interconnectivity across the island. This comprehensive system plays a pivotal role in realising a “ridge to reef” approach for environmental management.

THE GOAL

To establish a uniform set of island-wide standards for the provision of green infrastructure to enhance sustainability, resilience, and environmental integrity across Barbuda.

MEASURE OF SUCCESS

Integration of green infrastructure into Barbuda’s overall infrastructural framework, safeguarding both maritime and terrestrial environments.

Land Use and Design Principles

- DESIGN

Incorporate green infrastructure elements into the island’s drainage system, including drains, swales, bio-swales, rain gardens, green roofs, and permeable pavements. These strategies conserve water, reduce runoff, and enhance runoff quality, primarily for marine environment protection (Ridge to Reefs). Additionally, they can be employed to direct and capture runoff for terrestrial re-use.
- LAND USE

Develop terrestrial catchment areas, including ponds and lakes, and designate water table recharge areas to safeguard freshwater resources.
- DESIGN

Secure green infrastructure provisions through the permitting process for new developments, ensuring their incorporation into the island’s fabric.
- DESIGN

Develop a comprehensive policy framework related to sustainable drainage requirements and green building design, drawing guidance from established standards like USGBC LEED and SITES.
- DESIGN

Establish robust monitoring mechanisms to ensure consistent compliance with green infrastructure provisions and standards.
- DESIGN

Design landscape and environmental corridors throughout the island that connect land preserves with urban development to the coastal environment, facilitating biodiversity and ecosystem health.
- DESIGN

Promote tree planting as a key strategy for enhancing environmental connectivity, mitigating the heat island effect, and improving overall environmental quality.
- DESIGN

Design ecotones and environmental corridors with endemic and native plant species organised in appropriate plant communities, fostering ecosystem restoration.

Suggested Lead

HEALTH , SOCIAL
WELFARE & DISASTER
PREPAREDNESS

One Planet

- Sustainable Water
- Local & Sustainable Food
- Land Use & Wildlife
- Culture & Community
- Equity & Local Economy
- Health & Happiness
- Sustainable Transport
- Zero Carbon
- Sustainable Materials
- Zero Waste

Tools: Recommended Policies
& Actions

PLANS

Incorporate green infrastructure principles into plans that strategically connecting the island’s upland ridges to its coastal reefs through villages, to safeguard critical ecological corridors.

CODES

Green Building Programs: Reference established green building programs such as Green Globe, BREAM, USGBC LEED, WELL, and SITE programs to inform green infrastructure development and design.

Third-Party Verification: Encourage the adoption of third-party verification programs in new developments and refurbishment work to ensure compliance with green infrastructure standards.

GOVERNANCE

Engage local communities in the planning and development of green infrastructure, fostering a sense of ownership and responsibility for its success.

FINANCING

Foster partnerships between public and private stakeholders to secure financing for green infrastructure projects, leveraging diverse funding sources.

KNOWLEDGE

Encourage the development of native and endemic plant species for island development and potential export businesses. This initiative can stimulate micro-businesses that may eventually scale up or operate as community collectives. All planting materials should be sourced locally or from seed imports to prevent the importation of diseases into Barbuda.

Promote awareness campaigns and training programs to educate residents about the benefits of green infrastructure and sustainable landscaping practices.

ONE PLANET

Incorporate green infrastructure planning within the framework of One Planet Living (OPL) principles, aligning development with sustainability and resource efficiency goals.

Existing Policy
Documents and
Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Cave near Two Foot Bay
Source: Future Barbuda

TREES & SHADE

Provision of trees and shade has a multi-faceted impact, benefiting both the environment and community. Beyond providing relief from the sun, strategic tree planting cools the environment, reduces heatwave impacts, and combats soil erosion. This aligns with Barbuda’s commitment to sustainability by sequestering carbon and fostering a healthier ecosystem. Shaded areas also promote outdoor activities, community gatherings, and tourism, fostering social interactions and boosting the local economy. By creating a greener landscape, Barbuda addresses environmental concerns, enhances its environment, and reinforces its cultural identity as a sustainable and vibrant island community.

THE GOAL

To strategically plant trees and create shaded spaces that enhance natural cooling and contribute to the island’s overall well-being.

MEASURE OF SUCCESS

Measure success by tracking the increase in tree canopy coverage across different areas of Barbuda.

This includes assessing the variety of tree species planted to promote ecological diversity and resilience.

Monitoring temperature reductions in shaded areas compared to non-shaded spaces.

Utilise temperature sensors to quantify the cooling effect provided by the trees and shade.

Measure success by observing increased community utilization of shaded spaces.

Collect feedback from residents and visitors to understand how the presence of trees and shaded areas positively impacts their experiences on the island.

Land Use and Design Principles

- LAND USE

Strategic Planting. Plan and execute tree planting in locations that maximise cooling effects, mitigate heatwaves, and combat soil erosion, considering community needs and environmental benefits.
- DESIGN

Ecosystem Integration. Integrate trees and shaded areas into urban planning and development to mimic natural ecosystems, promoting biodiversity and enhancing ecological resilience.
- DESIGN

Multi-Functional Design. Create shaded spaces that serve multiple functions, such as supporting outdoor activities, community gatherings, and local tourism, fostering social interactions and economic vibrancy.
- DESIGN

Develop local endemic and fruit tree nursery. Nursery could be private or state run. Nursery will support development and conservation efforts on the island by providing easy access to plant materials that are not typically heavily invested on in most nursery operations because of the longer wait for return on investment. Ornamental varieties can be utilised based on local and historical tastes
- DESIGN

Government should provide a island dendrologist or similar expert to manage the islands tree stock. This specialist could work through either the Ministry of the Environment or the Ministry of Agriculture.
- DESIGN

Research and local knowledge should be used to determine suitable species for Barbuda as it relates to suitability to local plant quantities, fruit production and resilience to tropical storm conditions.

Tools: Recommended Policies & Actions

PLANS

Conduct a comprehensive assessment of existing tree canopies to inform planning and tree planting initiatives.

Develop a strategic plan that outlines specific tree planting locations, species selection, and maintenance schedules.

Integrate trees and shaded areas into urban development plans to enhance the quality of life for residents and visitors.

CODES

Building codes and development permissions can address loss of trees by mandating replacement tree planting as part of the development permission process.

Tree Preservation Ordinance: Implement regulations that require the preservation of mature trees during construction and development projects.

Establish guidelines for the selection of tree species that are well-suited to Barbuda’s climate and environmental conditions.

Shade Requirement in Public Spaces: Mandate shade provision in public spaces and outdoor recreational areas to enhance comfort and safety.

GOVERNANCE

Organise workshops and public forums to involve residents in decision-making regarding tree planting and shaded space design.

KNOWLEDGE

Develop educational programs and materials to increase public awareness about the importance of trees and shaded areas in Barbuda.

Offer training programs for municipal staff and volunteers on tree care and maintenance best practices.

PARTNERSHIPS

Collaborate with local businesses and organisations to fund and support tree planting and shaded space development.

Partner with environmental non-governmental organisations for expertise and resources to promote tree preservation and reforestation efforts.

ONE PLANET

Sustainability Certification: Pursue One Planet Partnership certification to demonstrate commitment to sustainable practices and integration of trees and shaded spaces into Barbuda’s cultural identity.

Consider a carbon offset program, where the carbon sequestration benefits of trees are quantified and used to offset emissions elsewhere on the island.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Planting at Island Chalet
Source: Future Barbuda

TRAILS

An environmentally sensitive and progressive Barbuda should offer resident and visitors options for circulation and recreation on the island.

THE GOAL

To provide a system for walking and cycling that will connect environmental, cultural and historical sites on the island.

MEASURE OF SUCCESS

The ability to circulate around the island as a pedestrian and a cyclist

Land Use and Design Principles

LAND USE	Integrate land use and growth with trail networks.
DESIGN	Design of multi-modal transportation routes to allow for safe pedestrian and cycling trails on major vehicular roads and circulation routes.
DESIGN	Design of dedicated pedestrian and cycling routes to access natural, environmentally sensitive and heritage sites on the island.
DESIGN	Select sensitive and dangerous sites should be catalogued and assessed to determine if suitable for general and visitor use. In some case trails should be utilised by local guides only to protect the environment and for visitor safety. This potential trail component will assist in further development of potential micro-business.
DESIGN	Educational modules should be developed for tour guides to provide visitor access with guides to sensitive and dangerous trails.
DESIGN	Barbuda to develop local construction details for a range of trail types. Construction could range from concrete, compacted loose aggregate to man cleared routes through the environment.
DESIGN	A developed Barbuda trail system should include interpretative, directional and safety signage.
DESIGN	There will be opportunities for landscape redevelopment of developing trails. Landscape re-development should include endemic and specific site appropriate plant community arrangements. An exception could be the use of fruit bearing plants.
DESIGN	Trail system should be a loop and interconnected. development of potential micro-business.
DESIGN	Educational modules should be developed for tour guides to provide visitor access with guides to sensitive and dangerous trails.
DESIGN	Barbuda to develop local construction details for a range of trail types. Construction could range from concrete, compacted loose aggregate to man cleared routes through the environment.
DESIGN	A developed Barbuda trail system should include interpretative, directional and safety signage.
DESIGN	There will be opportunities for landscape redevelopment of developing trails. Landscape re-development should include endemic and specific site appropriate plant community arrangements. An exception could be the use of fruit bearing plants.
DESIGN	Trail system should be a loop and interconnected.

Suggested Lead

One Planet

WORKS & GENERAL PURPOSES



Tools: Recommended Policies & Actions

PLANS

Develop plan for formal trail network.

GOVERNANCE

Secure partial funding for trail network from public gain financing generated by private development projects.

CODES

Implement and enforce development codes that prioritise walking and cycling routes connecting new residential and commercial projects.

PARTNERSHIPS

Foster collaborations with private stakeholders, tourism developers, and local businesses to invest in and maintain trail network.

Ensure that all planning is community-driven, guaranteeing that trail network serves the community.

FINANCING

Partial funding from public gain financing from private development initiatives

Community activities to raise funds and informal development initiatives

ONE PLANET

Utilise One Planet Action Plan as a tool to engage the community and stakeholders to build trail networks.

Align formal walking and cycling trails with sustainability principles, emphasising sustainable movement and minimal environmental impact, while promoting a balanced coexistence with nature.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Unmarked trail in Barbuda
Source: Future Barbuda

CONNECTIVITY

Pedestrian, cycle and road network

Barbuda needs to develop a rational, well-connected road network with clear hierarchy, providing connectivity and access through Codrington and all settlement areas on Barbuda. The approach needs to integrate with the concept of creating 15-minute neighbourhood communities.

THE GOAL
To create a standard mobility network providing equitable access to all users, both motorised and active, that supports and sustains the social and economic fabric of Barbuda.

MEASURE OF SUCCESS		
Mobility network coverage of the island’s settled area.	Connectivity between residential areas and key points of interest for economic, leisurely, educational and institutional uses.	Travel time between key activity generators and major residential areas is minimised, while congestion levels are optimised across the road network.

Land Use and Design Principles

- LAND USE** Integrate land use and growth with transportation and mobility networks and services.
- DESIGN** Locate key activities along major mobility corridors and prioritise transit-oriented development. Coordinate parking enforcement and traffic control approaches with the sustainability and liveability goals stated above.

Suggested Lead

One Planet

WORKS & GENERAL PURPOSES



Tools: Recommended Policies & Actions

PLANS

Adopt the transportation and mobility network outline in the Master Plan .

Define transportation and mobility policies to serve as planning framework for transportation and mobility services.

Define road network and trail system.

Adopt a road classification system denoting River Road, Two-Foot Bay Road and Coco Point Road as arterial roads, Lagoon Street, Lagoon Drive, Low Mission Street and Warbler Drive as collector roads, and all other roads as local roads. Road classes stipulate operating speeds, access restrictions, and the general focus of road legislation.

Develop Asset Management Programme that incorporates the inventory and condition of road assets, allowing their monitoring, tracking, maintenance and replacement costs, and works planning:

- Repair existing roads and re-align where possible to complete a continuous grid.
- Replace missing street signs.
- Introduce intersection controls – stop signs on local roads and at key major intersections on arterial and collector roads.
- Upgrade Spanish Well Road to collector standard, to function as bypass for River Road in the event of flooding.

CODES

Adopt design standards for each road classification, according to similar standards in Caribbean nations, or adopting the FHWA/AASHTO standards.

Adopt policing standards and signage strategy.

GOVERNANCE

Adopt Policy stipulating Barbuda Council responsibilities with maintenance and operation of the island road network.

Set clear road rights-of-way to delineate areas of responsibility for the Ministry of Public Works and Barbuda Council, and to specifically outline space dedicated to transportation and mobility facilities.

FINANCING

Develop Capital Road Infrastructure Plan and corresponding budgets to allow for construction of new roads.

Develop Road operating budgets to cover ongoing operating and maintenance cost of the island’s road network.

PARTNERSHIPS

Coordinate road network expansion with private developers and tourism facilities, to optimise connectivity and efficient investment.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



River Road
Source: Future Barbuda

PUBLIC TRANSPORT & TAXIS

Barbuda currently faces a transportation challenge due to the absence of a comprehensive public transport system. Recognizing this need, there is a growing call to develop an island-wide Public Transport or Community Mobility Strategy. While a bus shuttle service, once connecting Codrington, is no longer operational, private development endeavors like PLH have hinted at introducing shuttle services for their workers. As Barbuda’s outlying areas are developed, there is a unique opportunity to establish fixed bus routes to enhance mobility on the island, where public transport, walking, cycling, and shared vehicles could be preferable to private car ownership. Neighboring islands’ successful adoption of electric bus services also provides inspiration for future transit options, contingent on Barbuda’s electrical grid development.

THE GOAL

To create an integrated mobility system based around a public transport service and micro-mobility nodes for access to shared vehicles, cars, e-bikes etc.

MEASURE OF SUCCESS

Increase coverage across Barbuda.	Reduce island carbon footprint through reduction of community GHG emissions.	Connect all major activity generators with residential areas	Increase modal share of non-auto modes of transport.
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Land Use and Design Principles

- LAND USE** Coordinate land use planning with public/community transport plans.
- DESIGN** Focus higher densities with optimal public transport service.
- DESIGN** Integrate mobility hubs in existing and new communities

Suggested Lead

WORKS & GENERAL PURPOSES

One Planet



Tools: Recommended Policies & Actions

PLANS

Explore the feasibility of reintroducing a bus shuttle service for public use, considering routes to and from Codrington.

Prepare and adopt a Public Mobility Transport Strategy and Service Plan outlining a core route system, defining PT as a core service provided by Barbuda Council.

Consider establishing a local Transport Board or Authority with by-laws, code of conduct, institutional and governance structure, and service plan in longer term.

Determine optimal service delivery structure as either a public system or private service provider.

GOVERNANCE

Lay out a PT service committee within Barbuda Council, with assigned board.

Adopt by-laws and code of conduct for new PT service.

Employ PT Service general manager and administrative staff, acquire vehicle fleet, and employee full-time operators/drivers.

Conduct regular assessments and adjustments to the mobility strategy to address changing transportation needs and opportunities on the island.

FINANCING

Develop yearly capital and operating plan to identify fleet and equipment acquisition, and ongoing operating and maintenance costs.

Interface with GOAB, regional and international funding mechanisms to jump-start the service, assist with initial fleet acquisition, and supplement operating revenue streams.

PARTNERSHIPS

Coordinate with major employers and tourism sector and leverage synergies.

Investigate potential private-sector partnerships, like PLH, to provide shuttle services for employees and workers.

Learn from neighboring islands’ experiences with electric bus services, with a focus on potential implementation based on the development of Barbuda’s electrical grid.

ONE PLANET

Engage the local community and gather their input to ensure the mobility system aligns with their needs and preferences.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Bus Shelter
Source: Future Barbuda

MICRO-MOBILITY

Micromobility at tourist destinations is considered an addition to the existing transport options, which allows for better accessibility to main tourist attractions and, on a macroscale, helps to combat congestion and adverse environmental effects. The first wave of micromobility could be attributed to the development of bike-sharing. The next wave is connected to the development of e-scooters, monowheels, and similar. Often overlooked, on-foot movement is also increasingly welcome by promoting pedestrianization. Car sharing and car pooling should also be explored.

THE GOAL

To establish a comprehensive micromobility network, promoting accessible, eco-friendly transportation options that enhance community connectivity, reduce carbon emissions while ensuring safe and equitable access for all.

MEASURE OF SUCCESS

The number of people regularly using micromobility options, such as bicycles, electric scooters, or other small vehicles.

Trend to lower levels of car ownership despite increase in income, compared with trends on Antigua

Tracking safety records, including the number of accidents, injuries, or safety incidents involving micromobility users.

Land Use and Design Principles

LAND USE	Mixed-Use Development: Encouraging mixed-use development that integrates residential, commercial, and recreational spaces can reduce the need for long-distance travel, making micromobility options more feasible for short trips within communities.
DESIGN	Pedestrian-Friendly Infrastructure: Designing streets and urban spaces with a focus on pedestrian safety and comfort benefits micromobility users as well. Wider sidewalks, pedestrian crossings, and traffic calming measures contribute to a more pleasant experience for micromobility commuters.
DESIGN	Bicycle Parking and Charging Stations: Providing ample and secure parking facilities for e-scooters, e-bikes, and electric vehicles encourages people to adopt these modes of transport. Additionally, strategically located charging stations for electric vehicles will alleviate range anxiety and make EV usage more convenient.
DESIGN	Dedicated Micromobility Lanes: Designing separate lanes or pathways specifically for micromobility vehicles, such as e-scooters and e-bikes, can enhance safety and encourage their use. These lanes should be physically separated from vehicular traffic and be of a high quality to minimise conflicts and promote use.
DESIGN	Traffic Calming Measures: Implementing traffic calming measures, like speed humps and roundabouts, can reduce vehicle speeds and make roads safer for micromobility users, promoting a bike-friendly and walkable environment.

Suggested LeadOne Planet

WORKS & GENERAL PURPOSES



Tools: Recommended Policies & Actions

PLANS

Integrate public and private micromobility devices with Barbuda’s PT strategy. Make micro-mobility an extension of the PT service, allowing convenient “last-mile” connectivity between PT facilities and points of origin/destination.

CODES

Develop policies and by-laws regulating and legislating the use of micromobility devices, their acceptable use on-road and off-road, parking requirements, maintenance standards, and safety requirements.

Integrating sustainable transportation solutions into planning and zoning regulations to promote compact, development that supports the use of micromobility.

GOVERNANCE

Incentives and Policy Support: Governments can offer incentives, such as tax benefits or subsidies, to promote the use of micromobility vehicles. Additionally, policies like low-speed zones and traffic restrictions can prioritise micromobility in certain areas.

financing

Consider financing by road taxes for conventional vehicles or fuel tax on fossil fuels

PARTNERSHIPS

Cycle Hire Schemes: Exploring partnering with or learning from established cycle hire firm to provide bike / e-bike / e-scooter rental on island.

Accessibility and Inclusivity: Ensuring that micromobility infrastructure is accessible to people of all ages and abilities is crucial for promoting widespread adoption. Considerations for those with disabilities and older adults should be incorporated into the design process.

KNOWLEDGE

Public Awareness and Education: Conducting public awareness campaigns and educational programs about the benefits of micromobility and proper road usage can increase acceptance and encourage people to adopt these sustainable transportation options.

ONE PLANET

Encourage car sharing and carpooling in Barbuda through awareness campaigns, incentives, and local

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



Skootel provide e-bikes and e-scooters in Puerto Rico
Source: Skootel



AIRPORT

The construction of a new airport in Barbuda represents a significant step toward advancing the island’s international connectivity, fostering economic growth, and expanding its tourism industry. This development aims to not only improve transportation access but also uphold aviation safety standards and environmental considerations. The new airport will play a vital role in Barbuda’s development, benefiting both residents and visitors alike.

THE GOAL

To enhance international connectivity, boost economic development, and promote tourism while ensuring aviation safety and environmental responsibility.

MEASURE OF SUCCESS

Achieving international aviation certification

The new airport’s positive contribution to Barbuda’s economy

Addressing bird strike risks

Land Use and Design Principles

- LAND USE

Implement habitat management measures to deter bird activity around the landfill and airport.
- LAND USE

Explore options for relocating or improving waste management facilities in the area.
- LAND USE

Assess and adjust the airport’s layout to minimize potential conflicts with wildlife and the landfill.
- DESIGN

Conduct a comprehensive risk assessment for bird strikes and visibility concerns at the new airport site in Barbuda, considering its proximity to the landfill. Ensure this assessment addresses potential wildlife interference with aircraft operations and the impact on flight safety.
- DESIGN

Collaborate with environmental experts and aviation authorities to develop and implement measures to mitigate bird strike risks, such as habitat management, bird deterrent systems, and waste management practices at the landfill to reduce attraction for birds.
- DESIGN

Prioritize safety and environmental compliance in the design and construction of the new airport. Ensure facilities and infrastructure are in place to meet international aviation standards.
- DESIGN

Consider the findings of previous Environmental Assessments in 2018 and 2019 to guide the airport’s layout and infrastructure design, taking into account environmental, ecological, and socio-economic impacts.

Tools: Recommended Policies & Actions

PLANS

Collaborate with aviation experts to create a detailed airport development plan that includes bird strike risk mitigation strategies.

Incorporate findings from previous Environmental Assessments (2018 and 2019) into the airport’s layout and infrastructure design.

CODES

Develop and implement strict waste management guidelines, emphasizing responsible disposal practices to minimize bird strike risks.

Monitor and enforce compliance with these codes, and impose penalties for non-compliance when necessary.

GOVERNANCE

Form a dedicated task force or committee responsible for airport safety, environmental compliance, and bird strike risk management.

Collaborate with international aviation authorities to stay informed of best practices and safety standards.

Establish a reporting and accountability structure to maintain transparency in the decision-making process.

PARTNERSHIPS

Engage in partnerships with environmental experts, aviation authorities, and local organizations to implement effective mitigation measures.

Share knowledge and research findings on bird strike risks with international aviation partners for collective risk management.

KNOWLEDGE

Conduct a comprehensive bird strike risk assessment, incorporating wildlife interference with aircraft operations, and environmental factors.

Regularly update knowledge and data on bird activity around the landfill and airport.

Existing Policy Documents and Maps

- [Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)
- [Environmental Protection & Management Act, 2019](#)
- [Physical Planning Act, 2003](#)
- [Environmental Protection Levy Act, 2002](#)
- [Public Works and Road Act](#)
- [Public Utilities Act](#)



New runway for future airport
Source: Future Barbuda

SEAPORT / FERRY

Marine transport in Barbuda is undergoing significant transformations to enhance accessibility and expand its services. Commercial operators, such as the Barbuda Express and Typhoon Express, currently facilitate marine travel to and from the island. The GOAB Port Authority is taking steps to elevate the River Dock into a fully-fledged seaport, equipped to accommodate larger vessels and offer comprehensive services, including international customs clearance. While these developments hold the potential for progress, it’s essential to address challenges like sea level rise and security concerns, particularly regarding private marine vessels and passport requirements for travelers between Barbuda and Antigua.

THE GOAL

To expand and enhance marine transportation infrastructure and services, transforming the River Dock into a fully functional seaport and improve accessibility, logistics, and security, ultimately bolstering the island’s connectivity.

MEASURE OF SUCCESS

Barbuda recognised as a regional and international port, with adequate facilities and systems to support local and regional trade and travel.

Land Use and Design Principles

- LAND USE

Develop a comprehensive land use plan for the area surrounding the expanded seaport. This plan should consider zoning regulations, green spaces, and infrastructure to create a well organised and aesthetically pleasing environment.
- DESIGN

Environmental Considerations: Prioritize sustainable design practices that minimize environmental impacts. This includes designing the seaport to withstand sea level rise and storm surges, using environmentally friendly construction materials, and implementing waste management systems.
- DESIGN

Accessibility: Ensure the seaport is designed to be accessible to all passengers, including those with mobility challenges. This involves constructing ramps, walkways, and facilities that are compliant with accessibility standards.
- DESIGN

Safety and Security: Integrate security measures into the design, including surveillance cameras, secure entry and exit points, and clear emergency evacuation plans.
- DESIGN

Efficiency and Flow: Design the seaport layout to optimize passenger and cargo flow, reducing congestion and wait times. Consider features like well-Organised waiting areas and efficient customs and immigration processing facilities.
- DESIGN

Aesthetics: Strive for a visually appealing design that reflects the local culture and environment, creating an attractive gateway to Barbuda.
- DESIGN

Resilience: Incorporate resilient design features to mitigate the impacts of natural disasters and climate change. This may include elevated structures, flood barriers, and hurricane-resistant building materials.
- DESIGN

Inter-modal Integration: Plan for seamless connections between the seaport and other modes of transportation, such as road networks, to facilitate passenger and freight movements.

Suggested LeadOne Planet

HEALTH , SOCIAL
WELFARE & DISASTER
PREPAREDNESS



Health & Happiness



Sustainable Transport



Zero Waste

Tools: Recommended Policies & Actions

PLANS

Develop Marine Services Strategy

Delineate Barbudan vs GOAB service boundaries and infra-structure responsibilities.

Expand the River Dock to accommodate larger passenger and freight vessels, prioritizing safety and efficiency and delineate wharf space for small crafts, government wharf for commercial-industrial and private wharf

Develop a comprehensive seaport expansion plan that considers sea level rise and storm surge impacts to ensure the long-term resilience of the infrastructure.

Introduce effective customs and immigration procedures for international arrivals and departures, enhancing security and regulatory compliance.

CODES

Establish and enforce maritime regulations and codes that govern ferry and seaport operations, focusing on safety, environmental protection, and quality standards.

Implement strict adherence to passenger identification and verification requirements for all travelers to enhance security and immigration control.

GOVERNANCE:

Strengthen the governance of marine transport by coordinating efforts between the GOAB Port Authority, Barbuda Council, and other relevant authorities to ensure a unified approach.

Enhance surveillance and enforcement of marine activities, particularly at the River Dock, to curb unauthorized arrivals and departures.

PARTNERSHIPS:

Foster collaborations with experienced marine transport operators and industry experts to gain insights and best practices for seaport and ferry service management.

Seek partnerships with international agencies or organizations to improve customs and immigration processes and security.

KNOWLEDGE

Conduct thorough risk assessments, including bird strike risk assessments, to understand potential hazards and inform safety measures.

Provide training and capacity-building for staff involved in seaport and ferry service to ensure efficient operations, safety, and compliance.

These recommendations and actions aim to facilitate the growth and improvement of the seaport and ferry services in Barbuda, promoting safety, efficiency, and connectivity.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Physical Planning Act, 2003](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)



River Dock today
Source: Future Barbuda

WASTE, RECYCLING AND REUSE

The island of Barbuda currently grapples with a fragmented waste management system that falls under the purview of various authorities, primarily the Barbuda Council. The island faces substantial challenges related to legislation, economics, society, and institutions. This complex issue is exacerbated by the absence of a structured waste management strategy and inadequate waste collection services. Consequently, waste, including hazardous materials, is often indiscriminately disposed of on open land near the locked landfill. This practice is further complicated by administrative uncertainties regarding responsibilities and a lack of cost recovery mechanisms. Collaboration between various entities, including the government of Antigua and private contractors, is fraught with funding issues, hindering effective waste management. The situation underscores the urgent need for comprehensive and sustainable waste management solutions.

THE GOAL

To reduce the reliance on solid waste landfills to manage the island’s domestic and commercial waste an transition towards more sustainable waste management practices and to work towards One Planet goal of achieving zero waste.

MEASURE OF SUCCESS

The existing solid waste management facility is repaired and maintained, allowing adequate management of leachate.	Waste streams are separated, with different waste types transferred to the most appropriate processing methods.	The volume of commercial and industrial waste generated on island is reduced.	Maximize the circular economy whereby reusable material is identified and re-directed to local or off-island end points.
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Land Use and Design Principles

- DESIGN

Establish a clear waste management framework to define responsibilities between Barbuda Council and GOAB.
- DESIGN

Investigate modern waste treatment technologies for suitability in Barbuda.
- LAND USE

Explore potential relocation sites for the landfill, ensuring compliance with airport safety standards.
- LAND USE

Determine possible locations for composting food and green waste.
- LAND USE

Identify areas for sorting recyclable waste and efficient storage.
- LAND USE

Define Waste Management Land Use zones to restrict solid waste activities in sensitive areas.
- LAND USE

Implement buffer setbacks of at least 200m (up to 400m) from sensitive land uses around waste management areas.
- DESIGN

Set land use controls and standards for solid waste facility design, maintenance, and operation.
- DESIGN

Adopt international standards for storage cells, leachate collection, site security, and recyclable waste separation.
- DESIGN

Create a solid waste management hub to separate waste streams, potentially at the source.

Suggested LeadOne Planet

WORKS & GENERAL PURPOSES



Tools: Recommended Policies & Actions

PLANS

Develop and implement a comprehensive waste management strategy for Barbuda.

Establish an ongoing waste management plan covering production, collection, and processing.

Introduce a user fee system to inform customers about their waste generation.

Incentivize waste diversion through reuse and recycling.

Consider landfill relocation, adhering to airport safety standards.

Promote source separation of waste for reduced environmental impact.

CODES

Adopt by-laws regulating commercial and industrial waste generation.

Mandate localized waste collection and separation before transferring to centralized facilities.

GOVERNANCE

Commit to local responsibility for solid waste management.

Allocate annual budgets for waste collection and reduction programs.

Monitor and evaluate performance against set goals and success measures.

Collaborate with local and central government entities to strengthen waste management.

Establish a clear regulatory framework for fly tipping, pollution control, and waste collection.

FINANCING

Develop adequate budgets for waste collection and management.

Identify local and regional funding mechanisms.

Implement a user-fee program to inform residents and businesses about their waste generation’s impact on the island’s waste management program.

PARTNERSHIPS

Identify regional and international nodes in the circular economy.

Collaborate with other jurisdictions to consolidate reusable waste streams, such as plastics, metals, and glass.

Explore partnership opportunities for managing special waste, like paints and chemicals, with other jurisdictions and private-sector clients.

KNOWLEDGE

Develop local expertise in waste management.

Allocate funding to permanent waste diversion programs to nurture knowledgeable individuals capable of educating the community.

Support local initiatives in the circular economy to repurpose reusable waste materials.

Organise community workshops and webinars to educate residents on home composting’s benefits and practical guidance.

Provide training for waste management personnel in efficient collection and disposal methods.

ONE PLANET

Investigate sustainable island-wide waste reduction and recycling initiatives.

Explore a circular economy approach to minimize waste generation and maximize resource recovery.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Public Utilities Act](#)



Need for recycling in Barbuda
Source: Future Barbuda

ENERGY INFRASTRUCTURE

Barbuda capitalized on its extensive solar coverage with an expansion of solar photo-voltaic electricity generation. Barbuda has the potential to become a leader in renewable energy by expanding its large-scale photovoltaic generation capacity, installing energy storage, supporting community investment in microgrids and supporting electrification to replace fossil fuels for vehicles and boats.

THE GOAL

To become a net zero community generating its own renewable electricity, and decreasing reliance on imports of expensive fossil fuels to the island.

MEASURE OF SUCCESS

Proportion of Barbuda’s energy uses satisfied through renewable electrical generation.

Levels of electricity production through renewable energy systems.

Land Use and Design Principles

- LAND USE

Co-locate district energy facilities with other infrastructure systems like packaged wastewater treatment plants to reduce overall impact on surrounding developments.
- LAND USE

Identify district energy micro-grid facilities on maps.
- LAND USE

Reserve land for expansion of solar energy production and storage
- DESIGN

Plan for and support the introduction of localised microgrids servicing local developments. Plan new 15-minute village around a local district energy or microgrid system capable of satisfying local needs most of the time, with reduced loads on the central grid.
- DESIGN

Encourage the adoption of roof photovoltaic systems to offset grid loading.
- DESIGN

Plan for capacity for vehicle charging points for private electric vehicles and mobility hubs

Tools: Recommended Policies & Actions

PLANS

- Update land use designations, zoning and by-laws to permit select energy systems as ancillary to other uses.
- Plan for capacity for vehicle charging points for private electric vehicles and mobility hubs

CODES

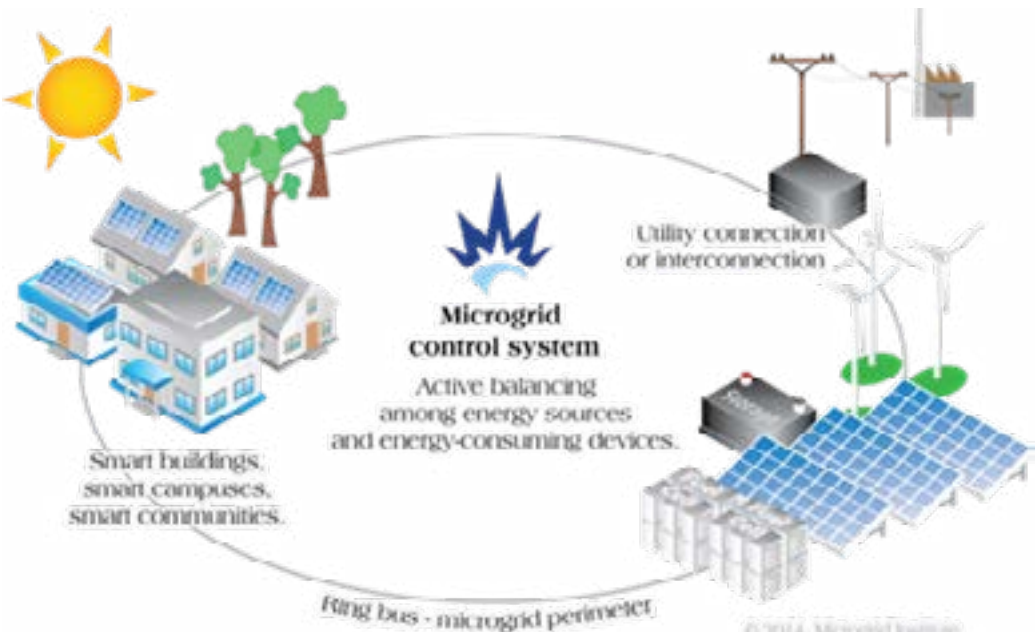
- Mandate the inclusion of local micro-grid systems with all major new developments such as hotels, resorts and residential subdivisions.
- Establish thresholds governing the sizes and complexity of micro-grid systems to ensure their safe operation and compatibility with surrounding land uses.

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Public Utilities Act](#)

[Public Works and Road Act](#)



Microgrid Control System



Solar Plant in Barbuda
Source: Future Barbuda

Suggested Lead

One Planet

UTILITIES



Equity & Local Economy



Zero Carbon

HERITAGE BUILDINGS

Vernacular character / Adaptive reuse

The rich history of Barbuda is also present in structures which have survived (to some extent) the test of time.

Preserving and/or re-purposing historical structures and those in ruin but of structural integrity to be of use to a contemporary Barbudan society, whilst maintaining a link to their shared history should be a priority.

THE GOAL

To preserve and/or re-purpose historical structures and those in ruin but of structural integrity to be of use to a contemporary Barbudan society.

Established Museum and other civic/educational space, for the sharing of history and tradition.	Reduced number of dilapidated unused structure.	Historical buildings / structures playing a part in the active day to day living of all Barbudans.
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Land Use and Design Principles

- DESIGN**Creation of pathways connecting historical sites and centres.
- LAND USE**Identification of and preservation of Historical Core(s) with clusters of historically significant sites and structures.
- LAND USE**Integrate heritage preservation into zoning and land use codes, allowing for flexible land use that encourages the adaptive reuse of heritage buildings.
- DESIGN**Where appropriate allow for signage with historical data on designated buildings.
- DESIGN**Encourage where possible re-use of past, but proven building practices when refurbishing existing historical structures.
- DESIGN**Seek innovative ways in re-using structures that may not be re-built but that hold their own in contemporary Barbudan way of life.

Suggested Lead
TOURISM & CULTURE

One Planet



Tools: Recommended Policies & Actions

PLANS

Heritage Building Inventory: Establish an inventory of heritage buildings, documenting their historical and architectural significance to form the foundation for preservation efforts.

Historic Centre Designation: Develop a comprehensive heritage preservation plan, prioritising historical structures and strategies for preservation and adaptive reuse.

Design Guidelines: Adopt heritage-specific design guidelines to ensure renovations maintain historical significance

GOVERNANCE

Heritage Authority: Establish a dedicated authority for overseeing heritage preservation, restoration, and adaptive reuse, integrating heritage considerations into decision-making.

Regulatory Framework: Enforce regulations for heritage building protection, including permitting requirements.

CODES

Implement specialised codes governing heritage preservation, emphasising historical integrity while accommodating modern needs.

ONE PLANET

Align heritage preservation with the One Planet framework, emphasising sustainability and resource efficiency while preserving historical authenticity.

KNOWLEDGE

Foster community awareness campaigns, educating residents and builders on heritage building significance and adaptive reuse benefits.

Provide training for local artisans to preserve traditional construction techniques required for heritage restoration.

FINANCING

Secure funding from diverse sources, including heritage agencies, international organisations, and community initiatives for successful historic building restoration in Barbuda.

PARTNERSHIP

Partner with heritage preservation organisations locally and internationally to access expertise and resources for restoration.

Actively participate in the Climate Heritage Network for guidance and collaboration in climate-resilient heritage preservation.

Promote community involvement, such as the heritage ‘airbnb’ concept, in heritage building restoration.

Facilitate knowledge sharing, exploring sustainable development approaches for heritage buildings with programs like Doh Eain’s Heritage Homes.

Investigate self-build ethos models for tailored, sustainable solutions considering Barbuda’s heritage and climate context.

Existing Policy Documents and Maps

[Sustainable and Circular Reuse of Spaces & Buildings Handbook \(EU urban agenda partnership on circular economy, sustainable use of land and nature based solutions\) Dec 2019](#)

Documentation by Andrew Sluyter, John Mussington, David Watters etc



Wardens House (photo 2021) dates from 1694 and was built as the residence of the island ‘Wardens’

ADAPTIVE REUSE

The rich history of Barbuda is also present in structures which have survived (to some extent) the test of time. Some of these structures may not be able to be fully refurbished to their original function but can provide the basis for creative reuse and adaptation to current practices / ways of living.

Tools: Recommended Policies & Actions

POLICY
Establishment of Historic Centre Ordinances

POLICY
UNESCO world heritage site listing and preservation
Building code enforcement.

CODES
Building code enforcement (existing and proposed).

PARTNERSHIPS
Mapping/inventory and assessment of unused spaces and relevant structures across the island.
Entrepreneurs / Builders

KNOWLEDGE
Sensitization through public presentations of possible adaptive reuse examples and the role they could play in the village’s built fabric.

Existing Policy Documents and Maps

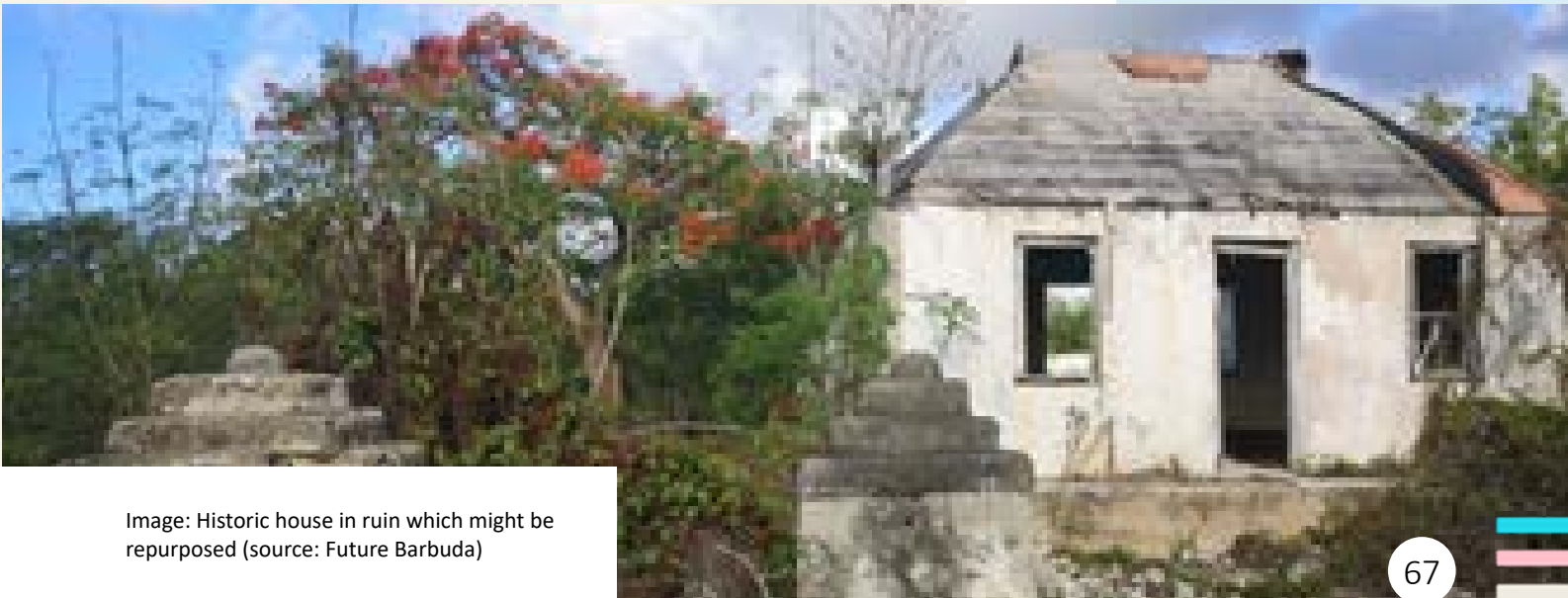
[Sustainable and Circular Reuse of Spaces & Buildings Handbook \(EU urban agenda partnership on circular economy, sustainable use of land and nature based solutions\) Dec 2019](#)

THE GOAL
Preserving and/or re-purposing significant structures in ruin (but of structural integrity) to be of use to a contemporary Barbudan society

MEASURE OF SUCCESS
Reduced number of dilapidated unused structures | A new sense of cohesiveness to the Village

Land Use and Design Principles

- DESIGN** Encourage creative ideas via design competitions (local population and diaspora)
- DESIGN** Creating of parks and gathering/recreational areas on site of ruins.
- LAND USE** Identify ‘needs’ in the urban fabric that could be met by means of adaptive reuse.



INCREMENTAL (ADAPTABLE) HOUSING

Provision of flexible structures capable of controlled extension over time. Given economic constraints, a stronger Barbuda is one where housing for its people is safe, accessible, familiar and adaptable.

THE GOAL

To establish an method for building affordable, sustainable, high quality, local construction based on need for incremental homes in Barbuda.

MEASURE OF SUCCESS

Reduced instances of new plot demarcation.

Protecting a village ‘skyline’ with a coherent and connected built environment.

Denser more active (village) centres.

Land Use and Design Principles

- DESIGN

Encourage mixed use as part of incremental approach to site development and housing.
- LAND USE

Maintain lot sizes and character with some intensification.
- DESIGN

Encourage multifamily and multi-generational living.

CHARACTER

The modern single-storey concrete dwelling with hip roof can be defined as the Barbudan residential vernacular (dominant style which utilises the materials and technologies at hand and materialises from communal traditions). Opportunities exist for vernacular architecture of other building types to emerge directly from the industrial, nautical, materials available and practical traditions of Barbuda.

THE GOAL

To maintain the island’s unique character for residents and tourists, embracing local customs and community values in the design of structures that harmonize with the island’s social, economic, environmental, and cultural context.

MEASURE OF SUCCESS

- Proliferation of vernacular construction elements across the island: verandahs, hipped roofs, shuttered windows, raised/accentuated bases and decorative motifs.

Emerging craftspeople and industry for the above.

Development of contemporary architectural styles.

Land Use and Design Principles

- DESIGN

Encourage smaller lot sizes and character similar to historic neighbourhoods in Codrington.
- DESIGN

Main scale/proportions of existing buildings.
- LAND USE

Encourage further adherence to an emerging vernacular in new construction.
- DESIGN

Adopt a paint colour palette that is both practicable (withstands the harsh sun exposure) and cultural (reflects a collective affinity routed in the historical practices / reflects the surrounding natural environment)
- DESIGN

Encourage use of patterns, textures, motifs as decorative elements to the built form.

Tools: Recommended Policies & Actions

PLANS

Code: enforcement of existing and proposed codes.

KNOWLEDGE

Safer building campaign with summarised strategies for self-builders.

KNOWLEDGE / PARTNERSHIPS

Referral to known community builders with established good/safe building practices.

KNOWLEDGE

Possible development of a pre-approved design kit and/or construction workshop(s).

PARTNERSHIPS

Historical society (local) creating a synergy between traditional practices and modern day Barbuda.

Existing Policy Documents and Maps

[OECS Building Guidelines for Antigua & Barbuda \(for buildings >2500ft2\)](#)

Colour Palette reference document identifying colours and colour combination typically used across the island - Volume 3.



Barbudan Residential Vernacular- modern single-storey concrete dwelling with hip roof

MANUFACTURING / INDUSTRIAL DEVELOPMENT

Manufacturing and processing is a key point in creating value in the life of a product. As Barbuda grows, pressures can be placed on existing industries, such as sand mining, and potential future industrial development. Supporting potential industrial and manufacturing on the island is a part of ensuring Barbuda has a well rounded economy and diverse set of employment opportunities.

THE GOAL
To establish sustainable, high quality, local industry as a source of Barbudan pride

MEASURE OF SUCCESS		
Increased self-sufficiency.	Reduced extractive industry on-island.	Number of approaches linking on waste streams on the island to create business opportunities. <i>For example construction materials made from crushed glass, local production from remoulded plastics waste etc</i>

Land Use and Design Principles

- DESIGN** Cross Programme with ‘green’/social activities and make publicly accessible to reduce dead corridors and ‘grey blocks’
- LAND USE** Incentivise light industrial mixed use (eg. with civic, historical or tourism) on village extremities.

Suggested Lead One Planet

WORKS & GENERAL PURPOSES



Culture & Community



Equity & Local Economy



Zero Carbon



Sustainable Materials



Zero Waste

Tools: Recommended Policies & Actions

CODES

Address solve an environmental problem through building/site design/ clever integration (eg. Beach-side sites to implement groins to reduce potential erosion)

Cross-programme with commercial (design workshops, co-working spaces, gym, movies) for more efficient use of structure (day/night use, passive surveillance)

PARTNERSHIPS

Accommodate civic/infrastructural need where possible (eg. If factory generating energy for its own use could dedicate battery storage/sell at a reduced rate to APUA for supply to Codrington etc)

Addressed under Equity & Local Economy, Zero Carbonin One Planet Action Plan

New business development, especially those focused on circular economy solutions

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)

[Environmental Protection & Management Act, 2019](#)

[Physical Planning Act, 2003](#)

[Fisheries Act, 2006](#)

[Environmental Protection Levy Act, 2002](#)

[Forestry Act](#)

[National Parks Act](#)

[Public Works and Road Act](#)

[Public Utilities Act](#)

Light Industrial Building with workspaces (Aemulus at the Runway by Design Unit Architects, Malaysia. source: ArchDaily)

TOURISM

The beauty of Barbuda should be shared with the world but not to the detriment of the local community, traditions and landscape.

Tourism is a significant part of Barbuda’s future economy and growth. Barbuda’s natural beauty, remote and character is a key attraction. Barbuda has many tourist attractions from natural features like the Frigate Bird Sanctuary and Highland Cliffs and Caves, to cultural and heritage sites, including the Martello Tower and historic Codrington.

THE GOAL

To develop tourism that is sensitive to the natural and cultural heritage and provides income for the local community and finance to support the protection and development of the heritage of the island.

MEASURE OF SUCCESS

Number of resorts, hotels, and tour operators supporting and signing up for the One Planet Action Plan.	Job creation in the tourism sector and its contribution to the local economy in terms of income generation.	Number of tourism business owned by member of the local community.
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Land Use and Design Principles

- LAND USE

Preserve Natural Areas and Communal Lands: Establish protected zones for biodiversity, ecosystems, heritages and agricultural lands. Regulate tourism activity in sensitive environmental and cultural areas.
- DESIGN

Intersperse small scale tourism offerings within the locale (see mixed used approach)
- DESIGN

Apply green practices to tourism facilities like hotels and transport. Embrace renewables and low-impact materials to cut carbon footprint.
- DESIGN

Manage visitor numbers and set sustainable limits per area to avoid overcrowding. Protect natural and cultural sites’ integrity through a tourism levy on visitors / businesses.
- DESIGN

Involve Communities: Engage locals in planning and decisions. Enable them to benefit economically and culturally from tourism, ensuring their say in impact management.
- LAND USE

Safeguard sites critical to Barbuda’s heritage and practices.
- DESIGN

Educate tourists about local customs, history, and significance though signage, museums, walking tours.
- DESIGN

Green Transportation: Promote eco-friendly travel options for tourists, like EVs, bikes, and walking tours. Reduce emissions and traffic congestion.

Tools: Recommended Policies & Actions

PLANS

Develop a comprehensive tourism plan that outlines sustainable tourism practices, identifies key attractions, and establishes guidelines for responsible tourism development.

GOVERNANCE

Establish a dedicated tourism authority responsible for overseeing tourism-related activities, ensuring adherence to sustainability principles, and involving local communities in decision-making.

Evaluate inward investment proposals based on their contribution to the One Planet Living goals of Barbuda

CODE

No part of Barbuda can be restricted for use by Barbudans (eg. Clear and generous access to the coast, lagoon and highlands)

Implement codes and regulations that promote sustainable tourism practices, including guidelines for responsible visitor behavior and eco-friendly operations for tourism facilities.

FINANCING

Create a fund to support sustainable tourism initiatives, providing financial incentives for businesses that adopt eco-friendly practices and contribute to the One Planet Action Plan.

PARTNERSHIPS

Collaborate with local communities, involving them in tourism planning and development, and ensuring that they benefit economically and culturally from tourism while having a say in impact management.

Promote community involvement, such as the heritage ‘airbnb’ concept, in heritage building restoration and for programs like Doh Eain’s Heritage Homes.

KNOWLEDGE

Develop educational programs and materials to inform tourists about local customs, history, and the significance of heritage sites through signage, museums, and guided tours.

ONE PLANET

Ensure that tourism development aligns with the One Planet framework, emphasising sustainability, resource efficiency, and minimal environmental impact. This includes promoting eco-friendly transportation options and the use of renewable energy sources within

Existing Policy Documents and Maps

[Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda \(including Redonda\) SIRMZP](#)



Outpost at Two-Foot Bay (source: Future Barbuda)



The Draft Development Plan for Barbuda was developed in consultation with the people of Barbuda, government representatives and other stakeholders. The Plan is based on the information available at the time of preparation and may become outdated. The government should be encouraged to verify and update information as needed. The government retains the final responsibility for decisions based on the plan.

#FutureBarbuda
Draft Development Plan

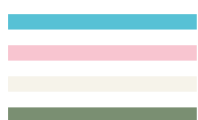
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Maya Blue Consortium

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Ministry of Works**



PRIVATE REALM GUIDELINES



PUBLIC REALM GUIDELINES

The objective is for these guidelines to serve as a navigational tool in shaping places and spaces that evoke pride and deeply resonate with the core of Barbuda's identity. By embracing these public and private guidelines, we collaboratively engage in the creation of a public realm that are not solely utilitarian, but also reflective of Barbuda's distinctive characteristics.

