

**National Policies and Plans
With Environment, Climate Change
and Disaster Indicators
for the
Ministry of Agriculture and Lands,
(Forestry) Fisheries and Cooperatives**



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Policies and Plans

The list of policies and plans presented here were developed from 1999 to 2022.

Many of the policies and plans do not include indicators but in all cases the activities and or outcomes would speak to the type of data and indicators needed to measure and evaluate these activities and outcomes.

16 Policies and Plans:- 5 speak directly to Fisheries, 3 – Water, 2 – Forestry, 2 - Biodiversity, 1 – Agriculture, 1 - Land use and 2 are National plans.

Policies, Plans and Indicators

- Grenada National Forest Policy and Strategic Plan – 1999
 - **Key areas** – Forest preservation and reserves
 - **Indicators/Data needed** – Data on flora and fauna, forest reserve, forest cover, woodland data, wildlife species demographics, biodiversity, % of forest reserves, % of forest protected, dry forest.
- Grenada Biodiversity Strategy and Action Plan – 2000
 - **Key areas** - Agriculture, Forestry and Wildlife; Fish Marine and Coastal Habitats; Land Use and Environmental Planning; Tourism,
 - **Indicators/Data needed** - Data on all species – flora and fauna, data on processes or activities that affect biodiversity; land use and management; data on coral reefs, marine life, coastal forests, wetlands; soil and fertility; climatic conditions; pest and disease monitoring; forest cover; forest, mangroves and woodland data; wildlife species demographics; fish stock; biological pest control.

Policies, Plans and Indicators

- **Forest Reserve Management Plan – 2007**
 - **Key areas** – Annadale and Grand Etang
 - **Indicators/Data needed** – Data on flora and fauna, forest reserve, forest cover, woodland data, wildlife species demographics, biodiversity, % of protected forest.
- **Fisheries Management and Development Plan – 2009**
 - **Key areas** – Coral Reefs, mangroves, estuaries, seagrass beds, spawning and nursery habitats
 - **Indicators/Data needed** – Change in fish stock and habitats, coastal and sea pollution, coastal ecosystems, sea temperatures, fish production.

Policies, Plans and Indicators

- Grenada Protected Area System Plan – 2009
 - **Key areas** – Environment in Protected areas – terrestrial and marine
 - **Indicators/Data needed** – Forest cover, wetlands, dry forest, river and stream flows and volume, mangroves, coastal ecosystems, temperature, marine life data.

- Grenada Land and Marine Management Strategy – 2011
 - **Key areas** – Tools for management of land and marine resources
 - **Indicators/Data needed** – Natural resource data/status update, geographical and climatic data, change in environmental conditions, watershed data.

Policies, Plans and Indicators

- Grenada Marine Protected Areas (MPA) – 2012
 - **Key areas** – Watershed Management
 - **Indicators /Data needed** – water pollution, coastal ecosystems, change in marine life in protected areas.
- Grenada National Agricultural Plan – 2015 - 2030
 - **Key areas** – Increasing agricultural production
 - **Indicators /Data needed** – Precipitation, temperature, river water level , volume and flow speed, micro-climatic data, humidity, wind direction and speed, flood zones, land topography.

Policies, Plans and Indicators

- **National Land Policy (draft) – 2016**
 - **Key areas** – Land information
 - **Indicators/Data needed** - Topography, flood zones, water sources and flows, landslides, coastal erosion, mangroves, forest, ground cover, wetlands, sea level rise, biodiversity info. natural resource info.
- **Grenada Biodiversity Strategy and Action Plan – 2016 - 2020**
 - **Key areas** – Ecosystems
 - **Indicators/Data needed** – Fresh water ecosystems, data on change in biodiversity, coastal and marine ecosystems data , forest cover, water pollution.

Policies, Plans and Indicators

- Grenada Blue Growth Coastal Master Plan – 2016
 - **Key areas** – Coastal and Marine Ecosystems
 - **Indicators/Data needed** – Ocean acidification, sea surface temperature, sea level rise, water and sea pollution, watershed data, beach erosion data.
- Grenada Integrated Water Resource Management (draft) – 2019
 - **Key areas** – Water
 - **Indicators/Data needed** – Water - sources, quality, flow, level, pollution, volume; precipitation, watershed data, storm water data, flooding, landslides, drought, vegetative buffers – mangroves, coastal vegetation, wetlands.

Policies, Plans and Indicators

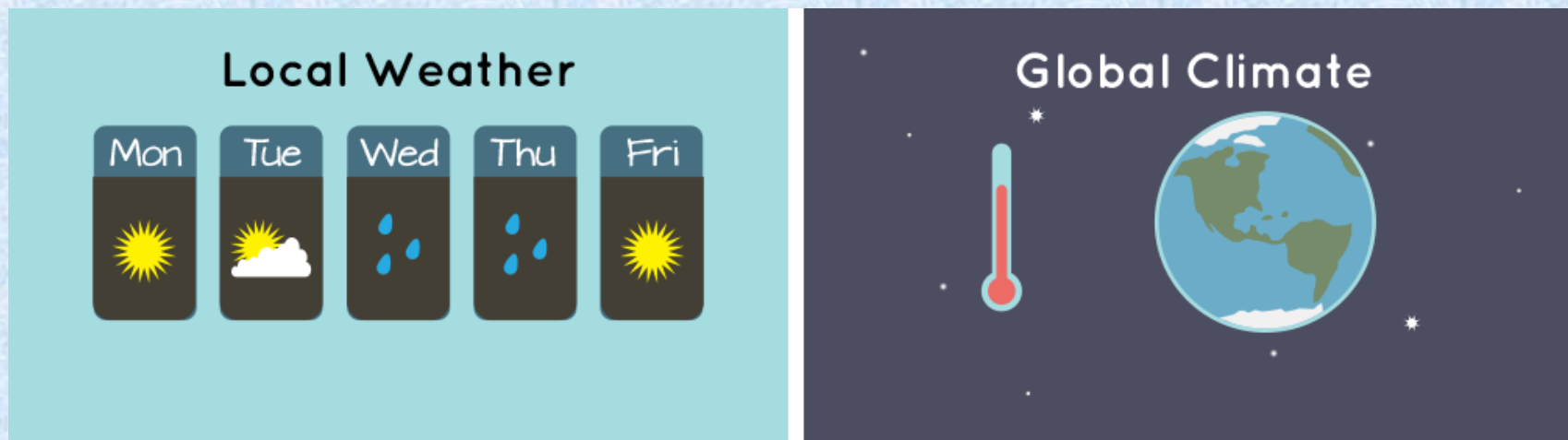
- Grenada Drought Management Plan – 2019
 - **Key areas** – Drought conditions – water
 - **Indicators/Data needed** – Precipitation, water levels, subsurface flow, river and stream flow, soil moisture data.
- Grenada National Sustainable Development Plan – 2020-2035
 - **Key areas** – Climate data
 - **Indicators/Data needed** – Water availability, water flow and volume, hazard risk info., green house gas emission, sea level rise, coastal erosion, carbon emissions, precipitation, sunshine, % of MPA managed, % of renewable energy consumption.

Policies, Plans and Indicators

- Grenada Water Policy – 2020
 - **Key areas** – Water
 - **Indicators/Data needed** – All water and water source related data, % of wastewater reused, % of storm water managed, water pollution status, water quality, water quantity, precipitation.
- Commonwealth Marine Economic Programme – Grenada Fisheries: Adapting to Climate Change – 2022
 - **Key areas** – Coastal information; marine life and ecosystem
 - **Indicators/Data needed** – Marine data, sea temperature, sea level rise, ocean acidification, sargassum seaweed occurrences, coastal erosion, mangrove and wetland data, fish production.

Policies, Plans and Indicators

- Grenada Medium Term Action Plan (MTAP) – 2023-2025
 - **Key areas** – Increasing Economic Activity; Improve Environmental Protection, Climate Resilience and Hazard risk, Improved Energy Efficiency
 - **Indicators/Data needed** – Climatic data - precipitation, wind direction and speed, temperature, coastal data, land topography, forest cover, water speed, volume and flow, % sunshine, % of renewable energy produced,



Conclusion & Recommendations

- Some indicators are collected on a regular basis (daily) – sunshine, cloud cover, temperature, precipitation, wind direction and speed.
- Indicators like river and stream water level, volume, flow and speed are collected occasionally – irrigation project.
- Indicators like storm and wastewater management, marine life stock, wildlife stock, soil moisture, water pollution, landslides are not collected or measured.
- **Indicators need to be made part of any plan that is developed, thus making monitoring and evaluation clearer, easier and more accurate.**
- Agriculture including Fishing is a fragile sector that is easily affected by changes in climatic or weather conditions and disasters. Therefore, monitoring our environment and looking at trends are becoming more and more important.

THANK YOU

