National Ecosystem Assessment of Grenada

As part of the project, "Supporting decision-making and building capacity to support the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) through National Ecosystem Assessments", under the National Ecosystem Assessment Initiative, a multidisciplinary team of experts embarked in 2019 on a 4-year journey to undertake a national ecosystem assessment. This research process involved extensive collection, analysis, and synthesis of existing knowledge, including Indigenous and local knowledge, on the status and trends of biodiversity and nature's contributions to people in Grenada. The assessment was completed in

December 2023, and has resulted in a first-of-its kind, comprehensive and up to date evidence base that is intended to support national policies and actions related to biodiversity and it's benefits for people.

The findings of the assessment are available in the <u>Technical Assessment</u> <u>Report</u> and the <u>Summary for Policy Makers</u>.

This information sheet presents the main findings and recommendations that aim to support policymakers, serving as invaluable reference points and informing on leveraging Grenada's natural assets for the holistic development of the nation.





ey Messages

Genetic diversity of agricultural products is a major Grenadian asset that generates significant income, with potential for much more.

High-quality cocoa and spice products depend on Grenada's unique local agricultural and varietal diversity.





Soursop export value grew from **US\$2.67 million** between 2012 and 2017, a 20-fold increase, suggesting potential for other under-utilised Grenadian agricultural products.

Grenada's genetic resources have many potential uses and can provide opportunities for economic and social benefits from harvesting, forming a niche economic sector.



Recommendations

Measures to promote the fair and equitable benefit sharing from sustainable use of living natural resources are needed:



Consider adopting measures to safeguard Grenada from biopiracy and illegal bioprospecting to protect the country's genetic resources.



Become a Party to the Nagoya Protocol to access a framework for better managing genetic stock and forging partnerships for transparent use and harvesting of genetic resources.



Utilize the draft Environmental Management Bill, 2018 to create a basic framework for the holistic management of Grenada's genetic resources.



Draft regulations under an overarching approved Environment Management Act to provide further specificity to fair and equitable benefit sharing from the sustainable utilization of living natural resources.



Key Message

Recommendations

Tackling Agrochemical Pollution

Agrochemicals include chemicals used in the agricultural industry such as pesticides (herbicides, insecticides, fungicides, rodenticides, nematicides etc.), synthetic fertilisers and plant growth stimulators.

Reduce agrochemical pollution through a systematic and holistic shift in the current culture around the use of agrochemicals by:

CZ

1

Updating, enacting, and enforcing applicable regulations related to agrochemical use.

Changing mindsets and practices among stakeholders to promote sustainable agrochemical use.

Encouraging the use of less toxic and more environmentally friendly substances.

Ensuring better adherence to application rates and waste disposal standards.

Offering financial incentives, such as reducing tariffs on organic brands, to enable sustainable practices.

Providing knowledge transfer, including training and workshops, to promote sustainable practices.



Increasing demand for food has led to increased pressure and the need to boost agriculture yields. Often, unsustainable practices (over application of fertilisers and





practices in surrounding areas.

Key Messages

Recommendations





Abnormal influx of Sargassum in the Caribbean's Large Marine Ecosystem over the past decade has negative impacts on beaches, including:



Physical challenges for nesting turtles and hatchlings.



Disruption of seamoss production in shallow waters.



Inaccessibility of fish landing sites (Grenville, Soubise Beach, Woborn, Petit Baycye, Menere, Conference Bay, and Sauters).



Disruption of recreational and tourism activities due to noxious gases (hydrogen sulphide) and impaired beach aesthetics.



Disruption of fishing activities due to fish kill events and entanglement of Sargassum in gear.



Potential introduction of **invasive species**.

Loss of beach sediment during Sargassum removal efforts.

Sargassum influx threatens seagrasses and associated fauna through physical smothering, light disruption, and die-offs. It also threatens coral reefs through eutrophication, oxygen depletion, and hydrogen sulphide release during decomposition, potentially causing coral die-offs.

Sargassum influxes may introduce invasive species to coral reefs and disrupt recruitment of species that use them as nurseries (e.g., shrimp, lobster, conch, snappers), while benefiting some bird species (e.g., shorebirds and seabirds) through enhanced foraging opportunities.





Integrated Sargassum Management

An integrated management approach is required to effectively manage the Sargassum influx in Grenada, including:

 Establishing a National Sargassum Task Force to effectively manage Sargassum influxes.

- Finalizing and implementing protocols and management strategies which have been drafted related to the Sargassum influx in Grenada.
- Promoting private-sector driven initiatives to develop and commercialize Sargassum products.
- Formalizing monitoring efforts to provide spatial and temporal data as it relates to Sargassum influxes.



Key Knowledge Gaps Identified in the Assessment

The National Ecosystem Assessment of Grenada highlighted significant knowledge gaps that need to be addressed to improve the conservation and sustainable use of biodiversity and ecosystem services in the country. Decision-makers should consider the following aspects in planning future research:

	1.	There is limited information on the impacts of climate change on ecosystem resilience in Grenada. More research is needed on how future climate conditions will affect the local environment.
	2.	Greater understanding is needed of how social processes and drivers relate to future economic, political, and demographic conditions. Also, modelling is needed to understand how these future, economic, political, and demographic conditions will affect the local environment.
	3.	Modelling changes in land use and land cover is needed to support improved terrestrial biodiversity management.
	4.	Gaps in land tenure data need to be addressed for better sustainable development planning.
	5.	There is limited information on habitat extent, population trends of harvested and invasive alien species, species responses to climate change, economic valuation of nature and its services, and the genetic variation of plant and animal species.
	6.	Substantial knowledge gaps exist in understanding of the perceptions and relationships of communities with regards to terrestrial ecosystems and their ecosystem services including contributions to livelihoods.
	7.	Assessing and addressing human resources needs is important to improve the management of protected areas.
	8.	More information is needed on the physical hydrology of Grenada and how changes in freshwater quality can affect aquatic fauna and flora. Specifically, information on the types, seasonality and concentration of nutrients and pollutants in rivers and streams is needed. Similar information is needed on pollution in coastal environments.
	9.	Modelling energy usage in Grenada will improve understanding of how energy demand and supply may evolve under different scenarios, how this could impact the economy and the environment, and what steps can be taken for improved energy management in the country.
		Download Grenada National Ecosystem Assessment - Summary for Policymakers and Technical Report.
0	Supported by:	In partnership with:
1	Federal Ministry for the Environment, Na Nuclear Safety and Con	ature Conservation, sumer Protection IIIT IVE