Advancing environmental information in the Eastern Caribbean

Towards the establishment of the OECS environmental information system

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This document was prepared by the Economic Commission for Latin America and the Caribbean (ECLAC) and the Organisation of Eastern Caribbean States (OECS) in the framework of the ECLAC-OECS Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean.

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Abbreviations and acronyms

CSO	Central Statistical Office
ECLAC	Economic Commission for Latin America and the Caribbean
EIS	Environmental information system
ESSAT	Environment Statistics Self-Assessment Tool
FDES	Framework for the Development of Environment Statistics
IUCN	International Union for Conservation of Nature
MoU	Memorandum of understanding
MRV	Monitoring, reporting and verification
NEIS	National Environmental Information System
OECS	Organisation of Eastern Caribbean States
REMDAP	Regional Environmental Monitoring Data Portal
SGD	St. George's Declaration of Principles for Environmental Sustainability in OECS
UWI	University of the West Indies

Chapter I
Background

In 2020, the Economic Commission for Latin America and the Caribbean (ECLAC) and the Organisation of Eastern Caribbean States (OECS) signed a memorandum of understanding establishing the Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean. The Programme recognizes the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) as a fundamental contribution to the implementation of international commitments assumed by OECS member States under such instruments as the 2030 Agenda for Sustainable Development, the OECS Revised Treaty of Basseterre establishing the Organisation of Eastern Caribbean States Economic Union and the St. George's Declaration of Principles for Environmental Sustainability in the OECS.

The memorandum states that ECLAC and OECS intend to reinforce the environmental dimension of sustainable development in the Eastern Caribbean through the Escazú Agreement by facilitating policy formulation, technical cooperation, training and capacity-building, strategic advocacy and awareness-raising, among other areas of endeavour. In particular, both institutions commit to developing joint studies, publications and reports and engaging in analytical work, as well as providing technical assistance to member States and organizing joint activities in support of the environmental dimension of the 2030 Agenda.

The Escazú Agreement, which has been signed and ratified by all independent OECS member States, guarantees the full and effective implementation of environmental access rights. It also calls for the establishment of environmental information systems (article 6.3) and provides a foundational framework for the development of one or more up-to-date systems in each State party. It thus focuses on creating and strengthening the relevant capacities and on cooperative efforts to protect the right of every person of present and future generations to live in a healthy environment and to sustainable development.

In turn, through the United Nations Development Account projects "Climate Change and Disaster Statistics in the Caribbean" (2020–2023) —implemented by the Statistics Division of ECLAC and the ECLAC subregional headquarters for the Caribbean— and "Enhancing Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean to Build Back Greener, Fairer and Better" (2021–2024) —implemented by the Sustainable Development and Human Settlements Division of ECLAC— OECS member States have received tailored support in building and strengthening their national capacities in the area of environmental, climate and disaster statistics and information. OECS member States have also benefited from the expertise of the ECLAC Statistics Division, which works to promote the conceptual and methodological development of environmental statistics and indicators, disseminates comparable information at the regional level and provides technical assistance and training to countries in the region.

A preliminary assessment by OECS and ECLAC of existing or proposed environmental information systems and registers in the six independent OECS member States showed that, as of 2020, only two countries —Antigua and Barbuda and Saint Lucia— had made progress in establishing comprehensive national environmental information systems. Both gaps, on the one hand, and strengths and opportunities, on the other, relating to these systems and efforts to forge sustainable environmental policies were detected in such areas as political will, public access, resource mobilization, capacity-building, institutional arrangements, technology adoption and cross-sectoral engagements, compliance, and monitoring and

enforcement. Nonetheless, all the member States' legal and policy mandates emphasize the importance of sharing environmental data and of providing public access to that information. In addition, the assessment showed that some countries have been exploring the possibility of developing sector-specific systems.

ECLAC has also been working to assist countries to meet their international commitments and to bolster progress towards the generation and compilation of environmental data, the provision of access to such data and the establishment of environmental information systems.

Given the financial and capacity constraints facing small island developing States and the added value of subregional cooperation, the OECS Council of Ministers on Environmental Sustainability has decided to develop a common environmental information system (EIS) to serve all OECS member States.

This EIS will serve as a hub for OECS member States but will be linked to and compatible with existing systems and information platforms. It will facilitate reporting under the Revised St. George's Declaration of Principles for Environmental Sustainability in the OECS (SGD 2040), the Escazú Agreement, the Sustainable Development Goals and other key multilateral environmental agreements.

The proposed road map includes three clusters:

(i) Content (availability and inventory)

(ii) Structure and governance arrangements

(iii) Logistics (implementation)

As part of the effort to determine the full scope, implications and feasibility of an EIS in OECS and to strengthen the national statistical and institutional capacities of Caribbean member States, this document provides an overview of the progress made towards the establishment of the system.

Chapter II

The legal framework

A. The Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement)

1. Access to environmental information

The Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, adopted in 2018, is the first regional environmental treaty to be concluded in Latin America and the Caribbean. The Agreement is designed to contribute to the protection of the rights of every person of present and future generations to live in a healthy environment and to sustainable development, underscoring the principles of the three dimensions of sustainable development: equality and non-discrimination, intergenerational equity and the balancing of economic, social and environmental concerns.

The Agreement seeks to deepen the environmental governance system, particularly by strengthening community engagement in environmental stewardship, supporting the generation of environmental information and the provision of access to that information, and contributing to the prevention and remediation of environmental harm. Its implementation is centred around

capacity-building and cooperation, which will also contribute to the effort to streamline the implementation of multilateral environmental agreements.

Thus, the Escazú Agreement is intended to support countries in building their national capacities and forging partnerships based on broad community engagement, allowing for a transition to more transparent, participatory and inclusive societies. It also serves as an enabling and driving force for coherent policies and approaches to the 2030 Agenda and SGD 2040 at all levels, especially policies and efforts focusing on the restoration of greener/bluer, fairer and better economies.

The Agreement defines "environmental information" under article 2 as:

> "...any information that is written, visual, audio, and electronic, or recorded in any other format, regarding the environment and its elements and natural resources, including information related to environmental risks, and any possible adverse impacts affecting or likely to affect the environment and health, as well as to environmental protection and management"

Access to environmental information in a systematic, proactive, timely, regular, accessible and comprehensible manner is a cornerstone of evidence-based environmental decision-making and, by extension, a prerequisite for sustainable development. Any public body that exercises the powers, authority and functions for access to information must ensure that this environmental information is reusable, processable and available in formats that are accessible and is not subject to restrictions on its production or use.

Paragraph 3 of article 6 of the Escazú Agreement mandates that:

Each Party shall have in place one or more up-to-date environmental information systems, which may include, inter alia:

- the texts of treaties and international agreements, as well as environmental laws, regulations and administrative acts;
- reports on the state of the environment;
- a list of public entities competent in environmental matters, and, where possible, their respective areas of operation;
- a list of polluted areas, by type of pollutant and location;

- information on the use and conservation of natural resources and ecosystem services;
- scientific, technical or technological reports, studies and information on environmental matters produced by academic and research institutions, whether public or private, national or foreign;
- climate change sources aimed at building capacities;
- information on environmental impact assessment processes and on other environmental management instruments, where applicable, and environmental licences or permits granted by the public authorities;
- an estimated list of waste by type, and when possible, by volume, location and year; and
- information on the imposition of administrative sanctions in environmental matters.

Furthermore, these systems ought to be duly organized, accessible to all persons and made progressively available through information technology and georeferenced media, where appropriate.

2. Entry into force and endorsement by OECS

In accordance with article 22, paragraph 1, the Escazú Agreement entered into force on 22 April 2021. All six independent member States of OECS have signed and ratified the Agreement (see table 1).

Table 1
Parties to the Escazú Agreement

Participant	Signature	Ratification, acceptance (A), approval (AA), accession (a)
Antigua and Barbuda	27 September 2018	4 March 2020
Dominica	26 September 2020	22 April 2024
Grenada	26 September 2019	20 March 2023
Saint Kitts and Nevis	26 September 2019	26 September 2019
Saint Lucia	27 September 2018	1 December 2020
Saint Vincent and the Grenadines	12 July 2019	26 September 2019

Source: Economic Commission for Latin America and the Caribbean. (2025). *Observatory on Principle 10 in Latin America and the Caribbean*. https://observatoriop10.cepal.org/en.

Other OECS member States or associate members[1] are bound by similar commitments under the Aarhus Convention, to which France, the Netherlands and the United Kingdom are parties.

As parties to the Escazú Agreement, the Protocol Member States of OECS are legally bound to implement the provisions of the Agreement, including the provision that directs parties to the Agreement to have one or more up-to-date environmental information systems in place. These EISs should be duly organized, accessible to all persons and made progressively available through information technology and georeferenced media, where appropriate.

The Escazú Agreement was endorsed at the Fifth Meeting of the Council of Ministers on Environmental Sustainability in 2018. Every OECS Protocol Member except Montserrat (an overseas territory of the United Kingdom) has signed and ratified the Agreement. Hence, all independent member States of OECS are working towards guaranteeing full and effective implementation of this Agreement.

B. The Revised St. George's Declaration of Principles for Environmental Sustainability

1. Adoption of the Revised St. George's Declaration of Principles for Environmental Sustainability in the OECS (SGD 2040)

The Revised Treaty of Basseterre establishing the Organisation of Eastern Caribbean States Economic Union states that:

> "Each Protocol Member State shall implement the St. George's Declaration of Principles for Environmental Sustainability in the OECS to minimize environmental vulnerability, improve environmental management and protect the region's natural (including historical and cultural) resource base for optimal social and economic benefits for Member States" (Organisation of Eastern Caribbean States [OECS], 2010, p. 55).

[1] Anguilla, British Virgin Islands, Guadeloupe, Martinique, Montserrat and Saint Martin.

In consideration of the ecosystem, geographical location, political structures, vulnerabilities and economic challenges of the small island developing States belonging to OECS and as part of efforts to respond to an ever-evolving global policy environment, the original St. George's Declaration of Principles for Environmental Sustainability in the OECS was adopted in 2001. The Declaration provides a broad framework for environmental management by OECS members. Jn. Baptiste and Gordon (2020a) refer to the Declaration as an exemplar of the use of regional policy harmonisation to bridge the divide between national and global policy. Its objectives were reaffirmed by means of a revision of the Declaration in 2006, and the commitments made therein had been met by 2010. This prompted an internal review that gave rise to a mandate for a further revision and updating of the Declaration. This mandate was echoed in the meetings of the Council of Ministers on Environmental Sustainability in 2017 to 2019. The most recent revision exercise resulted in *SGD 2040: An Environmental Agenda for the Eastern Caribbean,* which sets out a vision of "a healthy and productive environment, supporting the well-being and aspirations of the Eastern Caribbean" (OECS, 2020, p. 18). SGD 2040 was adopted at the Seventh Meeting of the Council of Ministers on Environmental Sustainability in 2020.

The Island Systems Management (ISM) framework is a foundational element of SGD 2040 (OECS, 2020). At the individual island level, the goals of this adaptive management strategy are to: (1) achieve sustainable development of all-natural resources; (2) reduce the vulnerability of the entire island and its inhabitants to natural and anthropogenic hazards; and (3) maintain essential ecological processes, life support systems and biological diversity in the area extending from the ridge to the outer limits of the exclusive economic zone (EEZ) (OECS, 2020). To respond to priority environmental problems and embrace opportunities for nature-based solutions in the Eastern Caribbean, SGD 2040 focuses on six strategic priorities and several cross-cutting enabling actions. The actions presented in infographic 1 are to be taken over an initial period of five years, after which an external evaluation will be conducted to maintain the relevance of SGD 2040 by exploring challenges, lessons learned and best practices.

Infographic 1
SGD 2040: strategic priorities and enabling actions

SGD 2040: strategic priority goals

The coastal and marine resources of the Eastern Caribbean are sustainably managed to optimize the potential for a blue economy and its associated long-term benefits.

The risks and vulnerabilities associated with climate change and natural/environmental hazards, and their impacts on natural and human systems, are adequately addressed at all levels.

Healthy and resilient biodiversity and ecosystems in the Eastern Caribbean provide goods and services that support socio-economic development.

Greater sustainable use of land and water resources is realized through integrated landscape management.

The contribution of clean, reliable and affordable energy to sustainable development is optimized in the Eastern Caribbean.

Integrated approaches to waste management focus on sustainable consumption, production and management practices that reduce waste and pollution in the environment.

SGD 2040: enabling actions

Partnerships

Good governance

Capacity development

Education and outreach

Research and systematic observation

Data, information and knowledge

Monitoring evaluation and learning

Regional cooperation

Equality and inclusivity

Innovative and sustainable finacing mechanism

Source: Organisation of Eastern Caribbean States. (2020). *SGD 2040: An Environmental Agenda for the Eastern Caribbean.*

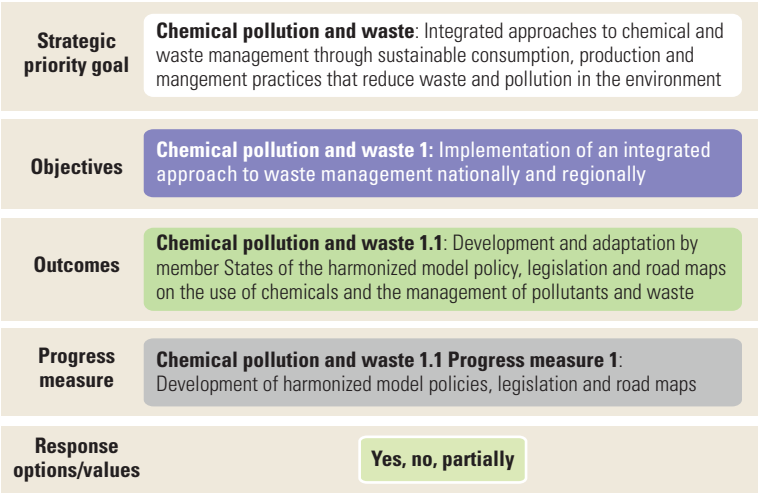
2. Reporting framework

Systematic monitoring and evaluation of the progress made towards implementing SGD 2040 is critical to ensuring the realization of this vision. In part, this is being done through the complementary SGD 2040 reporting framework, which facilitates timely, accurate and reliable reporting on activities contributing to the achievement of SGD 2040 objectives which are being conducted by member States and partner organizations (OECS, 2020). In addition, this reporting framework is being used to implement an effective reporting regime that will mitigate reporting challenges, such as the exorbitant level of effort required for timely, accurate and reliable reporting, while ensuring the successful execution of strategic actions and the effective dissemination of progress reports (OECS, 2020).

The SGD 2040 reporting framework is structured around six strategic priority goals and a varying number of objectives aimed at several different outcomes. To measure the progress made towards these outcomes, a set of one or more progress measures are assigned to each outcome. Progress measures are either a numerical value, categorical data or predefined options applicable to statistical calculations or presentations. These progress measures indicate the level of progress a member State has made towards the achievement of a specified outcome for a strategic priority goal. The hierarchy of this reporting framework is illustrated in diagram 1 using one of the objectives and outcomes for strategic priority 6 —chemical pollution and waste— as an example. The SGD 2040 reporting levels are summarized in table 2.

The SGD 2040 reporting framework is also a results-based tool, which is why environmental data are the foundation for this framework and why “data, information and knowledge” are one of the enabling cross-cutting actions for its effective implementation. The availability and accessibility of “pertinent, reliable, timely and up-to-date data and information” (OECS, 2020, p. 25) will provide the impetus for the other enabling actions.

Diagram 1
Structure of the SGD 2040 reporting framework



Source: Jn. Baptiste, T. and Gordon, D. (2020). *Stocktaking Report* [Unpublished manuscript]. Economic Commission for Latin America and the Caribbean.

Table 2
SGD 2040 reporting levels

Level	Data source	Reporting output	Frequency	Reporting scale
1.	Progress measures	- Aggregated progress measures - Levels of activity - Inputs (e.g. funding, budget allocation, etc.) - Direct outputs (e.g. number of persons trained) - Basic data analysis of progress measures	Annual/biennial reporting for all/selected strategic priorities	National
2.	- Level 1 - Additional primary data where necessary - Reports submitted to Convention secretariats/ development partners - Subject-matter knowledge related to strategic priorities	- In-depth analysis of specific strategic priorities - Conclusions on level of progress/status - Assessment of impacts within the framework of specific strategic priorities - Recommendations on continuing actions to address specific strategic priorities	Biannual or triannual reporting or reporting on an ad hoc basis (e.g. in conjunction with reports to the secretariats of multilateral environmental agreements)	National/ regional

Level	Data source	Reporting output	Frequency	Reporting scale
3.	- Level 1 - Level 2 - Additional research	- Comprehensive analysis of progress in SGD 2040 implementation - Identification of gaps/weaknesses in SGD 2040 implementation and corrective actions needed - Assessment of continuing relevance and appropriateness of SGD 2040 and recommendations for adjustments, if necessary - e.g. state of the environment report	Quinquennial	Regional (through a team outsourced by OECS)

Source: Organisation of Eastern Caribbean States. (2020). *SGD 2040: An Environmental Agenda for the Eastern Caribbean.*

C. Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean

In May 2020, OECS and ECLAC signed a memorandum of understanding (MoU) to establish the Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean. This MoU sets forth a commitment to meeting international environmental obligations and reinforcing the environmental dimension of sustainable development in the Eastern Caribbean through the Escazú Agreement, which includes the provision of technical support for the establishment of an EIS. Phase 1 of the Enhanced Programme included: (a) a preliminary assessment of existing or proposed environmental information systems and registers in the six independent OECS member States; (b) an analysis focused on identifying gaps, strengths and opportunities relating to the establishment of a regional EIS; and (c) a proposal for a subregional EIS based on common patterns, needs and requirements in the Eastern Caribbean.

1. Extension and expansion of the Enhanced Programme of Action

The MoU signed by ECLAC and OECS in 2020 concerning the Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean is currently being extended and expanded (OECS, 2024a) so that the EIS road map can be completed and subsequently developed further and expanded by means of the:

- Execution of additional national data availability and accessibility assessments;
- Development of a set of data and indicators for inclusion in the OECS environmental information system inventory; and
- Population of the OECS system with nationally available data.

Chapter III

Research findings

A. Assessment of existing or proposed information systems

Table 3 provides an overview of the assessment conducted in 2020 of existing or proposed information systems in the independent members of OECS. That assessment showed that only two members —Saint Lucia and Antigua and Barbuda— had made progress in establishing comprehensive national environmental information systems (Jn. Baptiste and Gordon, 2020b). The results for these two members were then used for the data extraction exercise and comparative analysis presented in chapter IV.

Table 3
Existing and proposed environmental information systems and registers in independent OECS members

Protocol Member	EIS	Legal/policy mandates	Type of information stored/proposed	Accessibility standards	Institutional cooperation arrangements
Antigua and Barbuda	Antigua and Barbuda–National Environmental Data and Information System	Environmental Protection and Management Act, 2019 Draft national biosafety framework Freedom of Information Act, 2004 Integrity in Public Life Act, 2004 Prevention of Corruption Act, 2004	Environmental data (Rio Conventions)	- Knowledge Information Management System integrates all these databases - Dashboard giving access to all other databases	Agencies upload and manage their data (4 MoUs signed to date)
	Antigua and Barbuda Natural Resources Inventory		United Nations Framework Convention on Climate Change (UNFCCC) monitoring, reporting and verification (MRV) system	- GeoNode platform, publicly accessible - Same as above	MRV framework law (under development) will establish internal data
	Antigua and Barbuda Environment Registry		Environmental data, (combination of spatial and non-spatial data)	Internal government	Protocol document for guidance and functions
	Internal environmental information management and advisory system (geospatial information system data)		Geospatial data		
Dominica		Draft national biosafety framework	Rainfall, wind speed and direction, air temperature, dew point, pressure, vapor, ultraviolet (UV) radiation, tide range	Various storage of data by multiple agencies manually and digitally	
Grenada	**Biosafety Clearing House**	Draft national biosafety framework National Biosafety Policy Draft biosafety and biotechnology management act Export and transit of living modified organisms (LMOs) Regulation			Signed MoU between designated biosafety laboratory and the University of the West Indies

Protocol Member	EIS	Legal/policy mandates	Type of information stored/proposed	Accessibility standards	Institutional cooperation arrangements
Saint Kitts and Nevis	**Biosafety Clearing House**	Draft national biosafety framework Biosafety Act, 2012	Information/data on Living Modified Organisms	Public access	Arrangements between the Government and the University of the West Indies
	National Environmental Information System	National Conservation and Environmental Management Act (No. 26 of 2025)	Environmental data, reports, policies and registers of information	Publicly available	
Saint Lucia	**Saint Lucia National Environmental Information System**[a]	Saint Lucia Open Data Policy, 2017 Second draft national biosafety framework Climate Change Act (No. 3 of 2024)	Environmental data relevant to report on the indicators of the Convention to Combat Desertification (UNCCD), Convention on Biological Diversity (CBD) and UNFCCC	- Access available to data from Saint Lucia for RIO Conventions reporting purposes - Viewing indicators and priority levels - Examining reports - Downloading the data sources in Excel (bar graph, pie chart or line graph format)	MoU signed between 17 private and public sector agencies agreeing to share environmental data and provide that data to the system Each agency has a data curator and data contributors that can upload data to the Common Data Storage Facility and generate reports
	Saint Lucia Open Data Portal[b]		Data published by all government agencies		
	Saint Lucia climate change website		Climate change data and reports on Saint Lucia		
Saint Vincent and the Grenadines	**Proposed**[c]		Protected areas sustainable land management Biodiversity conservation Coastal and marine resources	Central repository system, including maps and geospatial data	To be identified through stakeholder engagement

■ Existing systems ■ Systems in development ■ Proposed projects

Source: Economic Commission for Latin America and the Caribbean.

[a] Government of Saint Lucia. (2018). *National Environmental Information System (NEIS)*. https://www.neis.govt.lc/.

[b] Government of Saint Lucia. (n.d.). *Saint Lucia Open Data Portal*. https://data.govt.lc.

[c] Part of a proposal submitted by the Government of Saint Vincent and the Grenadines to the United Nations Development Programme (UNDP) Global Environment Facility (GEF) 6 project, which is aimed at conserving biodiversity and reducing land degradation using a ridge-to-reef approach.

1. Saint Lucia: National Environmental Information System

The web-based National Environmental Information System (NEIS) was launched in 2018 as part of a project entitled "Increase Saint Lucia's Capacity to Monitor Multilateral Environmental Agreement Implementation and Sustainable Development".[2] This NEIS was the first of its kind in the Caribbean and was the premier publicly accessible platform for the enhanced coordination of existing knowledge and the generation of new information on the status of Saint Lucia's environment. At the time, Saint Lucia was the only OECS member State with a functional EIS.

Saint Lucia's NEIS includes a reporting system and a central data storage facility that holds and records data centrally. It thus serves as a supporting and foundational tool for use in reporting on multilateral environmental agreements —specifically the United Nations Framework Convention on Climate Change, the United Nations Convention to Combat Desertification and the Convention on Biological Diversity. Seventeen government and non-government agencies signed an MoU covering the institutional arrangements for cooperation on environmental information management in Saint Lucia and the contribution of data to this central data storage facility up to December 2030. NEIS thus facilitates an open arrangement for sharing critical environmental data for use in collaborative cross-sectoral and inter-agency evidence-based policy and development planning. The data uploads are used to generate publicly accessible reports in easy-to-read formats on NEIS. With the help of NEIS, Saint Lucia is endeavouring to fulfil the EIS requirements outlined in paragraphs 3(b)–(f) and (i) of article 6 of the Escazú Agreement (Jn. Baptiste and Gordon, 2020b). This project attests to Saint Lucia's recognition of the value of public participation and environmental data for sustainable environmental management. To help mainstream the use of NEIS for the impact, risk and vulnerability assessments needed as inputs for adaptation planning, a descriptive audio-visual narrative entitled *Saint Lucia: Into the Future* was produced that links the past, present and the future over the next 10 to 50 years under increasingly severe

[2] https://www.neis.govt.lc

conditions in terms of climate change, land degradation and loss of biodiversity. As part of the awareness-raising, education and outreach activities being conducted, this public education film was broadcast nationally to encourage public participation in environmental management efforts. It is still publicly accessible on YouTube.[3]

2. Antigua and Barbuda: the National Environmental Data and Information System and the Natural Resources Inventory

The National Environmental Data and Information System (NEIS)[4] is a deliverable of the project entitled "Monitoring and Assessment of Multilateral Environmental Agreement Implementation and Environmental Trends in Antigua and Barbuda". Its purpose is "to strengthen national environmental information management systems, further building capacities for the effective management of data and information" (Mona GeoInformatics Institute, 2020). The NEIS facilitates the collection and analysis of data on variable environmental factors in Antigua and Barbuda.

The Natural Resources Inventory (NRI),[5] which can be accessed through NEIS, is a web-based application for the development of geospatial information systems and the deployment of spatial data infrastructure.

The Government of Antigua and Barbuda prepared a documentary on NEIS and NRI, accessible on YouTube.[6]

B. The OECS environmental information system: a gap and opportunity analysis

Opportunities for the establishment of an OECS-wide EIS are influenced by existing gaps and strengths in the areas of political will, public access, resource mobilization, capacity-building, institutional

[3] https://www.youtube.com/watch?v=haqVARhMlpY
[4] https://neis.environment.gov.ag
[5] https://nri.environment.gov.ag
[6] https://youtu.be/R21Hxrquj3U?si=cREsmtRwp1GcASB2

arrangements, technology and cross-sectoral engagements, compliance, monitoring and enforcement, and progress towards the implementation of sustainable environmental policies (Jn. Baptiste and Gordon, 2020b). Given the financial and capacity constraints faced by small island developing States, the redirection of funds to domestic responses to the coronavirus disease (COVID-19) pandemic and current macroeconomic conditions, the likelihood or timing of the development of an EIS in each independent OECS member State is difficult to predict.

Therefore, one feasible option is the development of a common EIS to serve all OECS member States. Such a system can serve as the hub for the member States while being linked to and compatible with existing systems and information platforms and can facilitate reporting for SGD 2040, the Escazú Agreement, the Sustainable Development Goals and other key multilateral environmental agreements.

C. The significance of the OECS environmental information system

An EIS can help the OECS member countries to ensure that environmental trends and the countries' environmental performance are consistent and comprehensive and that they are transparent for the citizenry, donors and other stakeholders. Designing, developing and implementing the OECS system will require integrated and standardized functionalities. Additionally, it will be necessary to map the indicators for the Sustainable Development Goals and multilateral environmental agreements, as well as to map critical components for the SGD 2040 reporting framework to existing and future regional information sources in order to address specific environmental issues that entail special data requirements. The use of diverse sources will help to ensure that a more thorough assessment can be made of a member State's environmental status. This tool will permit the extraction and presentation of data in charts, tables and other visualization formats which will facilitate reporting and decision-making. The system will therefore be able

to provide interactive formats that will translate environmental data into actionable information to support effective and sustainable environmental management efforts.

The most significant uses of EIS will be to:

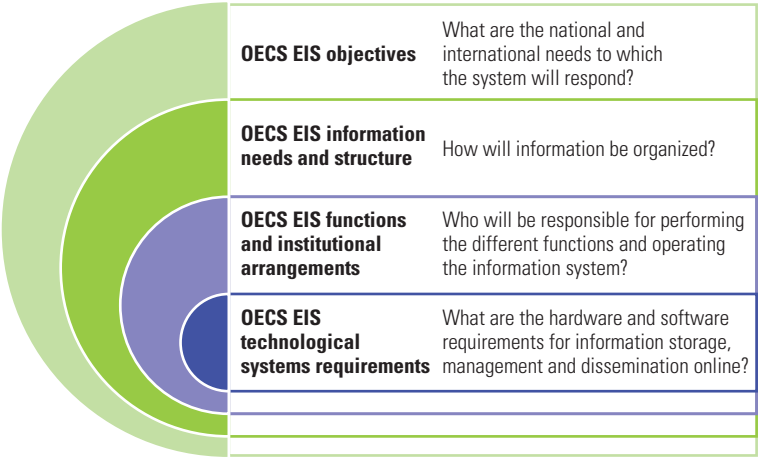
- Provide the Eastern Caribbean with a comprehensive platform for accessing data that will support integrated planning, impact assessments and risk analyses for national and regional development purposes;
- Display information publicly on a range of subjects and thus support policy and decision-making dialogues on environmental management and on social and economic issues as well as facilitating their validation by the general public and special interest groups at the national, regional and international levels;
- Identify trends (such as in pollution levels, demographics, waste disposal, the uptake of renewable energy, etc.) that can then be categorized as inputs for the prioritization of different actions; and
- Serve as a one-stop-shop and a searchable portal for information that can be used to track areas of interests and develop strategies for minimizing or mitigating negative trends.

D. Proposed structure and operational requirements of the system

The proposed structure along with the associated common operational requirements, institutional architecture and governance arrangements, is based on the common patterns, needs and requirements existing in the Eastern Caribbean. The recommendation that has been developed is aimed at fostering user-friendly access for the public and supporting OECS member States' efforts to meet reporting obligations while also taking into account a wide range of other uses, along with the need to avoid duplication and to ensure consistency and cost-effectiveness.

Despite similar geographic, economic and political features, depending on the country context, it will be helpful for the EIS design to be based on existing information systems and sources, although, given the members' differing national circumstances and legal and institutional frameworks, a generic model is not feasible. As such, the system will need to be a combination of existing systems and sources of information while also including any new elements that may be required to fill any gaps that are identified. Key design considerations are summarized in diagram 2.

Diagram 2
Key EIS design considerations

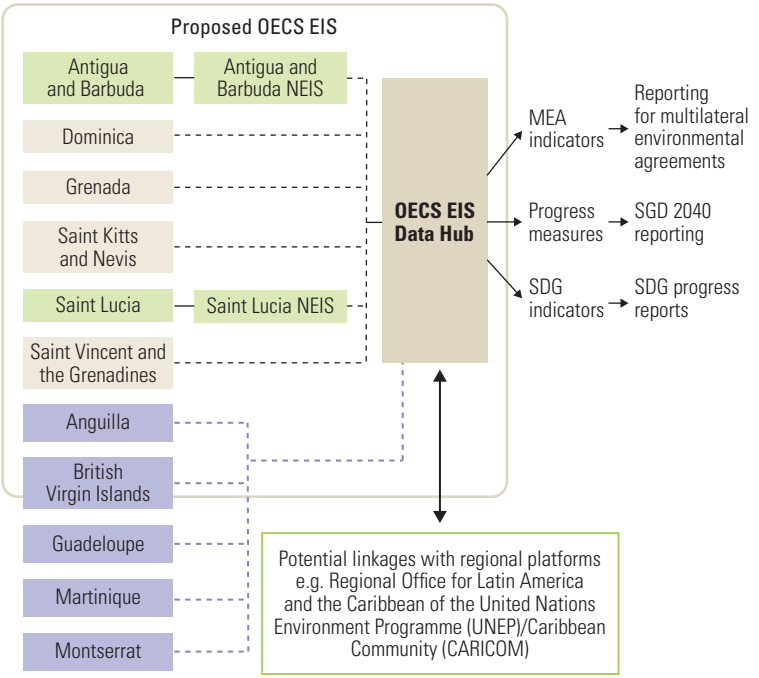


Source: Economic Commission for Latin America and the Caribbean.

The development of EIS will involve interlinking the existing individual systems and data portals of OECS member States based on the six strategic priority goals of SGD 2040. In some instances, this system will serve as the primary EIS for member States that do not have such a system. Both approaches —the use of EIS as a hub and its use as a primary information system— will be cost-effective when a combination of existing systems, sources and institutional arrangements are used, as illustrated in diagram 3. The existing NEIS of Saint Lucia and of Antigua and Barbuda will be interlinked with the web-based EIS data

hub, while that hub will be the primary information system for the other independent OECS member States that do not have a national system. The indicators for multilateral environmental agreements, progress measures and Sustainable Development Goal indicators uploaded either directly or through national systems to this regional EIS data hub will facilitate reporting for multilateral environmental agreements, Sustainable Development Goal progress reporting and compliance with the requirements of the SGD 2040 reporting framework.

Diagram 3
System architecture requirements of the proposed OECS environmental information system



Source: Economic Commission for Latin America and the Caribbean.

The operational requirements of the proposed OECS environmental information system are outlined in table 4 below.

Table 4
Operational requirements of the proposed EIS

Operational requirements	Subcomponent	Role/purpose
Technical requirements	Regional technical steering committee	- Comprises multisectoral development stakeholders - Is of a consultative and transparent nature - Manages EIS in accordance with current environmental data and governance initiatives - Provides recommendations in consideration of the national capacities and circumstances of OECS member States
	Administrator: OECS Commission	- Acts as the EIS server and portal administrator - Functions as the centralized hosting facility for EIS deployment; is equipped with backup power, a high-speed network connection, regular backup routines (including offsite backup) and a secure data centre with audited access control, monitored fire/intrusion detection and protection from environmental effects - Requires an assigned unit with a system administrator, webmaster and data analyst to maintain the physical server software environment and to liaise with the member States' lead agencies to ensure regular collection, uploading and updating of data and management of data quality
	Member States' national lead agencies	- Execute and/or report on activities related to SGD 2040, Sustainable Development Goals and multilateral environmental agreements at the national level - Upload and maintain country-specific data received from assigned data contributors and curators on an agreed schedule
Content/data requirements		- Regional open data policy - Data sharing agreements (local and regional) - Data based on Sustainable Development Goal indicators, multilateral environmental agreements, the Escazú Agreement and the SGD 2040 reporting framework - Management of PDF documents, spreadsheets, text files and geospatial data
Reporting procedures		- Determined by the regional technical steering committee - Based on compliance reporting protocols of SGD 2040, multilateral environmental agreements and the Sustainable Development Goals - Should include a data management standard and policy highlighting the most suitable frequency for data uploads, the type of data required and data sharing mechanisms.

Source: Jn. Baptiste, T. and Gordon, D. (2020a). *Proposed Structure for a Sub Regional Environmental Information System* [unpublished manuscript]. Economic Commission for Latin America and the Caribbean.

Chapter IV

Proposed road map for the OECS environmental information system

The proposed road map for the OECS system is broken down into three different clusters, each of which is associated with a number of defined actions (see table 5).

Table 5
Proposed road map for the OECS system

Cluster	Actions
1. Content (availability and inventory)	(a) National data availability assessments (environmental data already available)
	(b) Development of the proposed inventory of IS based on data availability and selected indicators (climate change and disaster pilot)
2. Structure and governance arrangements	(a) Policy brief and decisions of the Eighth Meeting of the Council of Ministers on Environmental Sustainability
	(b) Development of an OECS data sharing protocol (OECS member States)
	(c) Mapping of national actors and institutions and development of national coordination schemes
3. Logistics (implementation)	(a) Shared Environmental Information System (SEIS) information technology/technical requirements; OECS capacity assessment; implementation proposal
	(b) Implementation, including training and communications

Source: Prepared by the authors.

A. Cluster 1: content (availability and inventory)

1. National data availability assessments

Cluster 1a of the road map for the OECS system focuses on national data availability assessments in the independent OECS Protocol Member States using the Environment Statistics Self-Assessment Tool (ESSAT) applied by ECLAC and a structural diagnostic report.

(a) Environment Statistics Self-Assessment Tool (ESSAT)

The ESSAT consists of two parts. Part I deals with the institutional dimension of environmental statistics. It thus focuses on the overall institutional and organizational structure of national statistics in the country and on specific information that is of interest from a managerial or policy perspective. Part II of the ESSAT consists of the statistics level assessment. It is based on the Basic Set of Environment Statistics of the Framework for the Development of Environment Statistics (FDES 2013) and is used as a tool to "assess the national relevance, importance, availability and sources of ... individual statistics" (United Nations, 2016a, p. ii) and to identify relevant quantitative and qualitative data gaps.

The Basic Set of Environment Statistics comprises three tiers of statistics. At any stage of development, it is recommended that all countries consider collecting tier 1 statistics (the "core statistics") —of which there are 100 distributed across six components. These core statistics are of high priority and relevance to most countries and have a comprehensive methodological foundation.

A core statistic is recorded as available when one of the following criteria is satisfied:

- Identical: available according to the concepts, definitions, classifications and methodology recommended by FDES 2013; or
- Similar: available but not according to the concepts, definitions, classifications or methodology recommended by FDES 2013.

The availability of these core statistics in the six OECS member States is summarized in table 6. The amount of core statistical items available nationally ranges from a high of 85% to a low of 39%.

Table 6
Summary of available core statistics in the independent OECS Protocol Member States

Components of ESSAT statistics level assessment	Core statistics[a]	Antigua and Barbuda	Dominica	Grenada	Saint Lucia	Saint Vincent and the Grenadines	Saint Kitts and Nevis
1. Environmental conditions and quality	32	26	13	32	13	8	22
2. Environmental resources and their use	30	22	12	26	23	11	16
3. Residuals	19	14	7	8	14	8	3
4. Extreme events and disasters	4	3	4	4	4	3	4
5. Human settlements and environmental health	12	9	4	12	11	8	12
6. Environmental protection, management and engagement	3	2	0	3	3	1	0
Total	100	76	40	85	68	39	57

Source: Economic Commission for Latin America and the Caribbean.
[a] Number of core statistics listed in United Nations. (2018). *Environment Statistics Self-Assessment Tool (ESSAT). Part II: Statistics Level Assessment.*

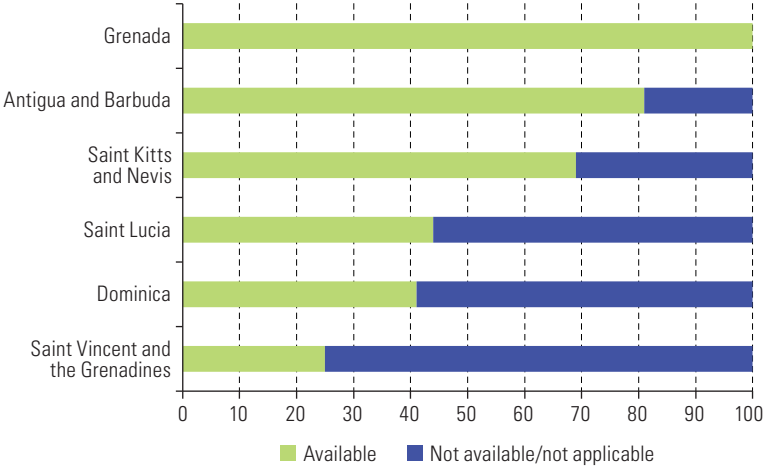
(b) Structural diagnostic report

The following subsections summarize the individual reports presented by the independent Protocol Member States as inputs for the diagnostic assessment of their environmental, climate change and disaster statistics and recommendations for strengthening data production and use.

(i) Data gap analysis

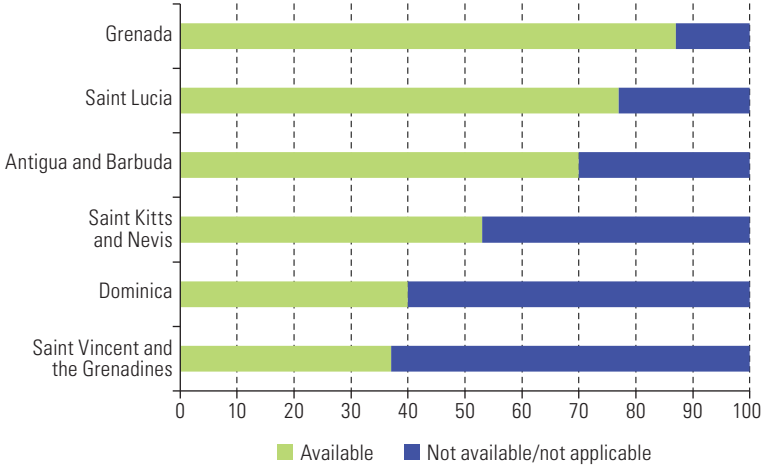
The largest data gap in an OECS country in component 1 is 75%. The average percentage of core statistics in component 1 that are either not available or not applicable to the independent Protocol Members is 40%, which is equivalent to approximately 13 core statistics.

Figure 1
Data availability and gaps in component 1 of the ESSAT statistics level assessment



Source: Prepared by the authors.

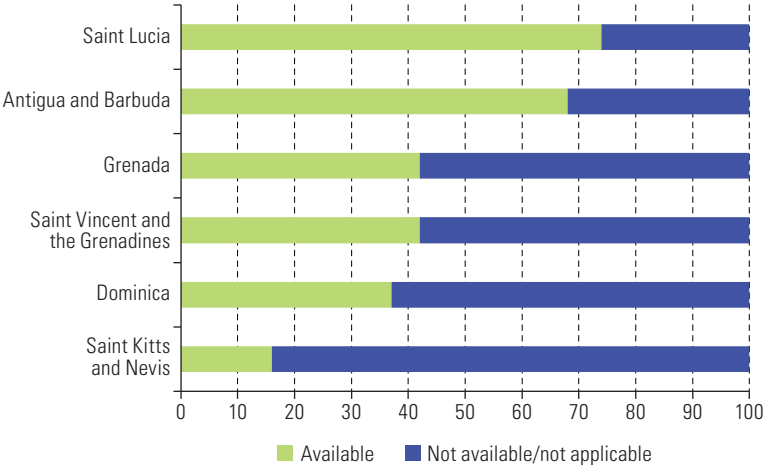
Figure 2
Data availability and gaps in component 2 of the ESSAT statistics level assessment



Source: Prepared by the authors.

The largest data gap in an OECS country in component 2 is 63%. The average percentage of core statistics in component 2 that are either not available or not applicable to the independent Protocol Members is 39%, which is equivalent to approximately 12 core statistics.

Figure 3
Data availability and gaps in component 3 of the ESSAT statistics level assessment

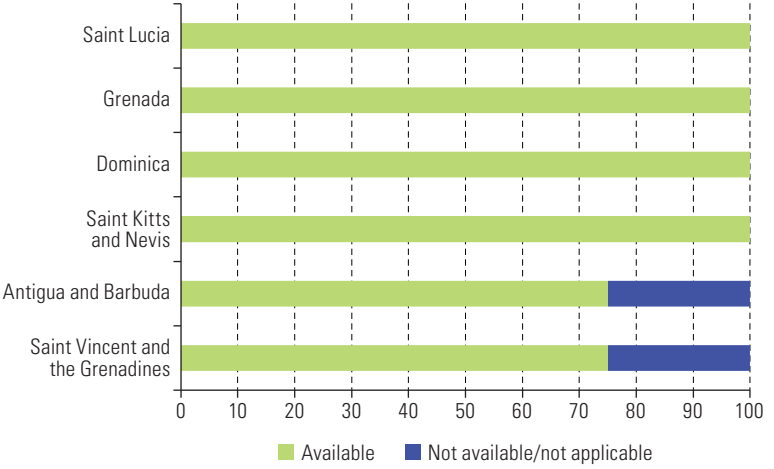


Source: Prepared by the authors.

The largest data gap in an OECS country in component 3 is 84%. The average percentage of core statistics in component 3 that are either not available or not applicable to the independent Protocol Members is 59%, which is equivalent to approximately 12 core statistics.

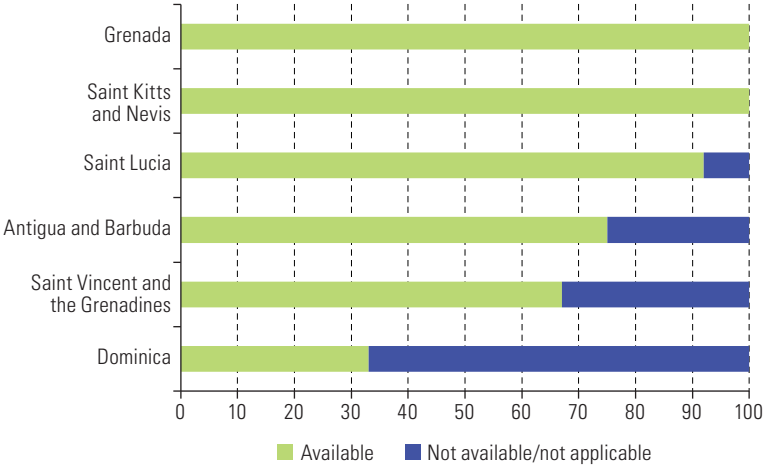
Only two OECS countries have data gaps (25%) in component 4. The average percentage of core statistics in component 4 that are either not available or not applicable to the independent Protocol Members is 8%, which is equivalent to approximately 1 core statistic.

Figure 4
Data availability and gaps in component 4 of the ESSAT statistics level assessment



Source: Prepared by the authors.

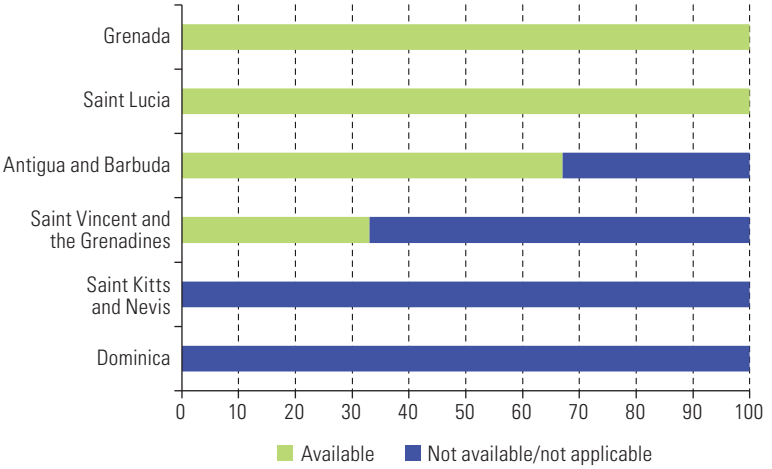
Figure 5
Data availability and gaps in component 5 of the ESSAT statistics level assessment



Source: Prepared by the authors.

The largest data gap in an OECS country in component 5 is 67%. The average percentage of core statistics in component 5 that are either not available or not applicable to the independent Protocol Members is 22%, which is equivalent to approximately 3 core statistics.

Figure 6
Data availability and gaps in component 6 of the ESSAT statistics level assessment



Source: Prepared by the authors.

Two OECS countries have a 100% gap in component 6. The average percentage of core statistics in component 6 that are either not available or not applicable to the independent Protocol Members is 50%, which is equivalent to approximately 2 core statistics.

Based on the data availability and gap analysis above, approximately 43 of the 100 core statistics in ESSAT are either not available or not applicable to the independent Protocol Members.

(ii) Capacity needs

The data gaps highlighted in section IV.A.1(b)(i) are attributed to:

- Resource constraints
- Methodological/technical difficulties in data collection

- Inaccessibility
- Poor management of institutional knowledge
- Lack of institutional set-up/cooperation
- Poor quality of available data
- Low frequency of data updates
- Minimal enforcement of, and commitment to, inter-agency agreements
- Inconsistent application of best practices in data collection and management and limited measures for ensuring the sustainability of benefits across institutions
- Improper management of organizational process assets
- Loss of institutional knowledge
- Reliance on special projects for enhancement of data governance without modification of regular budgets to complement those efforts
- Poor communication among data-producing agencies
- Insufficient scientific research

(iii) General recommendations for improving the production and use of statistics and indicators

- Increased communication and collaboration among data-producing agencies and key stakeholders (via an inter-institutional environmental committee, for example)
- Standardized procedures for data collection to obtain comparable data for indicator calculations
- Awareness-raising efforts focused on environmental statistics and the importance of compiling climate change and disaster statistics
- Increased access to the requisite resources (including capacity-building and training) to enhance the collection and dissemination of environmental, climate change, disaster, social and economic statistics
- Advocacy of evidence-based policy formulation and planning
- Strengthening of the Central Statistical Office
- Establishment and enforcement of inter-agency agreements (facilitated by, for example, an MoU)

- Modification of job descriptions to include data collection and dissemination tasks, where necessary

(iv) Recommendations concerning the design and scope of an EIS

- Development of an EIS design and scope statement that takes country-specific ESSAT results, capacities and resources into consideration

(v) National workshops

Throughout 2021 and 2022, the Statistics Division of ECLAC and the ECLAC subregional headquarters for the Caribbean, in collaboration with the ECLAC Sustainable Development and Human Settlements Division, coordinated a series of country-level workshops. The overarching purpose of these workshops was to enhance the production and use of key indicators and metrics for monitoring adaptation to the effects of climate change and for strengthening environmental information systems. These workshops therefore focused on, but were not limited to, the following objectives:

- Train the participants to build selected environmental, climate change and disaster indicators and metadata;
- Identify data and capacity needs for the development of an EIS, discuss the results of the country-specific ESSAT and build a regional resilience platform; and
- Improve the participants' understanding of how geospatial data can enhance the use of environmental, climate change and disaster indicators for effective decision-making.

2. Inventory proposal

(a) Data extraction and comparative analysis

The following comparative analysis focuses on the reported availability and accessibility of core statistics across the six components of the validated ESSATs for two OECS member States (Antigua and Barbuda and Saint Lucia) and a proxy (Suriname). The two OECS member States were chosen because they were the only two in the subregion with fully operational national environmental information systems.

The completed ESSATs for Antigua and Barbuda, Saint Lucia and Suriname were used to guide the data extraction process. Separate country folders containing the extracted data were shared with the United Nations Statistics Division.

The filing system used for the shared folders follows the structure of part II of the ESSAT. Each country folder includes six subfolders for each ESSAT component. Each component folder is further divided into subcomponent and topic folders. The data files are named in accordance with this structure. The examples given in table 7 provide guidance for the interpretation of file names.

Table 7
Interpreting the names of extracted data files

File name	6.1.1.a.1 2013-2015.xlsx
Component	6. Environmental protection, management and engagement
Subcomponent	6.1. Environmental protection and resource management expenditure
Statistical topic	6.1.1. Government environmental protection and resource management expenditure
Subtopic	6.1.1.a. Government environmental protection and resource management expenditure
Core statistic	6.1.1.a.1. Annual government environmental protection expenditure
Time coverage of dataset	2013–2015
File format	Excel workbook (xlsx)

Source: Gordon-Darcheville, D. (2023). *Analysis Report* [Unpublished manuscript]. Economic Commission for Latin America and the Caribbean.

Part II of the completed ESSATs provided an indication of core statistic availability. The data extraction process also provided an opportunity to assess the accessibility of those core statistics that were reported as being available. According to the instructions in part II of the ESSAT, data are considered inaccessible if they cannot be obtained from the responsible agency or the primary source with relative ease. Hence, any "available" statistic that could not be extracted is reported as inaccessible. If one or more, but not all, the data sets reported as available in part II of the ESSAT are not accessible, the "available" statistic is reported as being partially accessible. When all the data sets reported as available in part II of the ESSAT were successfully extracted, the "available" statistic is reported as fully accessible. The results of the extraction process are captured in table 8.

Table 8
Summary of data extraction for Antigua and Barbuda, Saint Lucia and Suriname

Components of ESSAT statistics level assessment	Core statistics[a]	Available core statistics[b]			Extracted core statistics[c]			Partially accessible statistics[d]			Inaccessible statistics[e]		
		ATG	LCA	SUR	ATG	LCA	SUR	ATG	LCA	SUR	ATG	LCA	SUR
1. Environmental conditions and quality	32	26	14	18	25	13	17	13	8	8	3	1	1
2. Environmental resources and their use	30	21	23	25	21	17	22	12	8	4	0	6	3
3. Residuals	19	13	14	10	11	7	8	3	4	3	2	7	2
4. Extreme events and disasters	4	3	4	4	3	4	4	0	4	3	0	0	0
5. Human settlements and environmental health	12	9	11	8	9	8	7	4	5	3	0	3	1
6. Environmental protection, management and engagement	3	2	3	3	2	3	2	0	2	1	0	0	2
Total	100	74	69	68	69	52	60	32	31	22	5	17	8

Source: Gordon-Darcheville, D. (2023). *Analysis Report* [Unpublished manuscript]. Economic Commission for Latin America and the Caribbean.
Note: ATG: Antigua and Barbuda; LCA: Saint Lucia; SUR: Suriname.
[a] Number of core statistics listed in United Nations. (2018). *Environment Statistics Self-Assessment Tool (ESSAT). Part II: Statistics Level Assessment.*
[b] As stated in United Nations. (2018). (A).
[c] Number of available core statistics for which data were extracted either partially or fully (B).
[d] Number of partially accessible statistics (C).
[e] Reported as available in United Nations (2018) but could not be accessed at any point throughout the data extraction process (A-B).

(b) Availability versus accessibility: challenges

(i) Antigua and Barbuda

The results of the ESSAT for Antigua and Barbuda confirm the availability of 74 core statistics. Data corresponding to 69 core statistics were extracted. However, data sets corresponding to only 37 (54%) of these core statistics are fully accessible; 32 statistics are available but only partially accessible; and 5 statistics are available but inaccessible.

Although the sector-specific databases are web-based, they are not publicly accessible; links and access were obtained from the liaison officer. To increase public accessibility to the data stored in these databases, the corresponding links can be shared on the Antigua and Barbuda NEIS. Using these links instead of uploading data sets at regular intervals will permit the public to have access to the updated data in real time and reduce the workload of the data provider. Data integrity can be maintained by restricting data set access functions to viewing and downloading.

(ii) Saint Lucia

The results of the ESSAT for Saint Lucia confirm the availability of 69 core statistics. Data corresponding to 52 core statistics were extracted. However, data sets corresponding to only 21 (40%) of these core statistics are fully accessible; 31 statistics are available but only partially accessible; and 17 statistics are available but inaccessible.

Throughout the extraction process, the publicly accessible component of the Saint Lucia NEIS was non-functional. Login credentials were requested in order to obtain access to the data stored on the central data storage facility of the NEIS, and it was suggested that the officer responsible for the NEIS take the necessary steps to extract specific data sets from the backend of the website. In consideration of the limited functionality of the NEIS and the MoU on data sharing in effect among data-producing agencies in Saint Lucia —including the Central Statistical Office (CSO)— the CSO website can be used as an alternative publicly accessible data sharing platform with a wider repertoire of environmental statistics. The core statistics can be used as a point of reference for increasing this repertoire.

Environmental data are produced by multiple agencies in Saint Lucia, and CSO does not house all the relevant environmental data. The assignment of a liaison officer or the reactivation of the government liaison team that was in place during the ESSAT national data availability and accessibility assessment would have facilitated greater data extraction coverage in terms of the number of statistics and data sets. It would also have increased the efficiency of the process.

In addition, the CSO website was experiencing technical difficulties. Initially, the data sets were visible but not downloadable. Then, the website became inaccessible. Unfortunately, CSO personnel were not able to provide all requested data from the backend owing to the increased workload associated with the ongoing population and housing census. In the interim, direct requests were made to the respective data-contributing agencies. In some instances, the responsible officers of those agencies indicated that their new databases and reporting structures were not retrospectively populated and/or that further research and compilation would be required in order to provide the requested data sets. Ultimately, four data submission commitments were not fulfilled.

(c) Proposed baseline for the OECS environmental information system

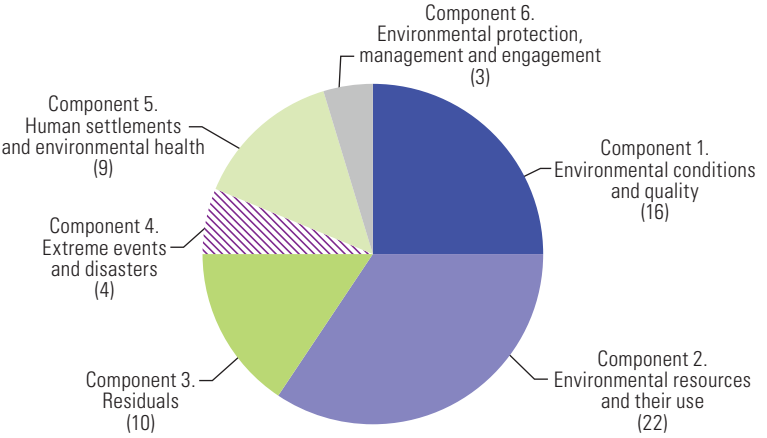
The results of the national data availability assessments in cluster 1a of the regional EIS road map guided efforts to propose an inventory for the OECS system under cluster 1b of the subregional road map. Consequently, both actions will provide support for the development of an EIS in cluster 2 (structure and governance arrangements).

This proposed baseline for EIS statistics is based on the extraction, integration and comparative analysis of the available environmental, climate change and disaster statistics conducted in Antigua and Barbuda, Saint Lucia and Suriname (proxy) as a pilot exercise.

A total of 64 core statistics are included in the proposed baseline for EIS (see figure 7). These statistics were selected by comparing their availability and accessibility in Antigua and Barbuda,

Saint Lucia and Suriname. The core statistics in data sets that are available and accessible in at least two of these countries have been included in the proposed baseline. These relevant —and internationally comparable— environment statistics can be structured, synthesized and aggregated into statistical series and indicators to depict essential phenomena or dynamics and can provide guidance in determining priorities.

Figure 7
Distribution of statistics in the proposed baseline for the OECS system



Source: Gordon-Darcheville, D. (2023). *Analysis Report* [Unpublished manuscript]. Economic Commission for Latin America and the Caribbean.

(i) Challenges and recommendations

OECS has seven Protocol Members: Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines. However, the pilot exercise involved only two of these members. The inclusion of Suriname —a developing country in the Caribbean, like the other members of OECS— provided the requisite insights for the development of a draft baseline for EIS. The comparative analysis and baseline should be updated in consideration of the availability and accessibility of core statistics in all Protocol Member States. This will increase overall accuracy and provide a clearer picture of the actual situation.

B. Cluster 2: structure and governance arrangements

1. Policy brief and decisions of the Council of Ministers on Environmental Sustainability

(a) Eighth Meeting of the Council of Ministers on Environmental Sustainability

At its eighth meeting, the OECS Council of Ministers on Environmental Sustainability:

1. Welcomed the Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean;
2. Noted the outcomes of the initial assessment of EIS frameworks and the establishment of an OECS environmental information system;
3. Endorsed the proposed road map containing identified clusters and actions to operationalize an OECS environmental information system; and
4. Requested the OECS Commission and ECLAC to continue their provision of technical support on the Escazú Agreement, including the strengthening of environmental information systems and the future development of an OECS system (OECS, 2021).

(b) Ninth Meeting of the Council of Ministers on Environmental Sustainability

At its ninth meeting, the OECS Council of Ministers on Environmental Sustainability:

1. Welcomed the resources and tools provided by the Caribbean Protected Areas Gateway (CPAG) for linking data to better decisions;
2. Encouraged the member States and stakeholders within OECS to take action by:
   - Learning more about CPAG;
   - Increasing their utilization of the tools and services offered by CPAG; and
   - Increasing their collaboration;

3. Commended the Conference of Parties to the Escazú Agreement on the outcome of its first meeting, held from 20 to 22 April 2022, and on the election of Antigua and Barbuda and Saint Lucia as Vice-Chairs of the Presiding Officers;
4. Encouraged signatory OECS member States to ratify the Escazú Agreement at their earliest convenience and to participate as parties in the extraordinary Conference of the Parties to be held in 2023 in Argentina;
5. Welcomed the progress made in implementing the road map for establishing the OECS environmental information system and commended the OECS Commission and ECLAC for the technical support provided thus far, including: the national assessments that had been conducted; the extraction and integration of databases and of relevant and comparable environmental, climate change and disaster statistics and indicators for the completion of the ESSAT and the organization of national workshops; and
6. Urged OECS member States to strengthen their collaboration with the Commission and ECLAC in implementing the agreed road map for establishing the OECS environmental information system (OECS, 2022).

(c) Tenth Meeting of the Council of Ministers on Environmental Sustainability

At its tenth meeting, the OECS Council of Ministers on Environmental Sustainability:

1. Endorsed the Council of Ministers road map to 2030, with 22 actions for accelerated and sustainable transformation by 2030, and noted that action 14 is to "build and sustain the Regional Environmental Information System (2024-2030)";
2. Acknowledged the significant progress made in the implementation of the agreed EIS road map with the support of ECLAC and other partners, and called for its completion with a view to having the system operational as soon as possible;

3. Noted and welcomed the various initiatives and partners working towards the advancement of the OECS EIS:
   - The Escazú Agreement, through ECLAC;
   - CPAG through the International Union for Conservation of Nature (IUCN); and
   - The Regional Environmental Monitoring Data Portal (REMDAP), through OECS, the Caribbean Public Health Agency and UNEP;
4. Requested the relevant agencies and initiatives engaged in data management in the region to:

   Consider and explore the development of a regional coordination and collaborative mechanism for more effective and sustainable environmental data management, leveraging the several tools, platforms and reporting modalities available in support of more informed decision-making and towards meeting the obligations by Member States and partners of Multilateral Environmental Agreements and other relevant treaties (cluster 2b of the regional EIS road map);
5. Endorsed the exploration of specific collaboration by OECS Commission and Member States with ECLAC, CPAG and REMDAP, and aligned initiatives and agencies, towards the establishment of an appropriate, interoperable, integrated and sustainable core/central repository and decision-support tool for environmental-related data in OECS in keeping with the regional EIS road map (cluster 2b of the road map); and
6. Further requested that these agencies and initiatives collaborate on the development of common data standards and sharing protocols to guide environmental data collection, sharing and management in and across Member States (OECS, 2023).

(d) Eleventh Meeting of the Council of Ministers on Environmental Sustainability

At its eleventh meeting, the OECS Council of Ministers on Environmental Sustainability:

1. Requested the OECS Commission, ECLAC, IUCN, UWI and other agencies/partners with aligned mandates and capacities to support further advancement and sustainability of the OECS Regional EIS through collaboration and partnership for the benefit of member States;
2. Encouraged Member States to utilize and promote the current mechanisms available for access to and analysis of data and information through OECS Regional EIS, and to support the sustainability and advancement including through data collection and sharing; and
3. Acknowledged and commended the collaboration by OECS Commission and Member States with ECLAC, CPAG and REMDAP, and aligned initiatives and agencies, towards the establishment of an appropriate, interoperable, integrated and sustainable core/central repository and decision-support tool (the "EcoSystem") for environmental-related data in OECS in keeping with the regional EIS road map (OECS, 2024a).

C. Cluster 3: logistics (implementation)

1. Extension and expansion of the MoU: Enhanced Programme of Action

In May 2020, OECS and ECLAC signed an MoU for the establishment of the Enhanced Programme of Action on the Escazú Agreement in the Eastern Caribbean. This MoU establishes a commitment to meeting international obligations and reinforcing the environmental dimension of sustainable development in the Eastern Caribbean under the terms of the Escazú Agreement, which include technical support for the establishment of the OECS environmental information system (EIS). Phase 1 of this programme included: (1) a preliminary assessment of existing or proposed EISs and registers in the

six independent OECS member States; (2) an analysis aimed at identifying gaps, strengths and opportunities in connection with a subregional EIS; and (3) a proposal for a subregional EIS based on common patterns, needs and requirements in the Eastern Caribbean.

2. OECS–International Union for Conservation of Nature

OECS and the International Union for Conservation of Nature (IUCN) are in the process of drawing up an agreement under which OECS is to host CPAG, as part of the broader EIS architecture, and obtain the requisite financial, technical and human resources to enhance biodiversity and environmental management (cluster 3a of the regional EIS road map).

3. OECS–Regional Environmental Monitoring Data Portal

The Regional Environmental Monitoring Data Portal (REMDAP) was launched on 26 March 2024 (OECS, 2024b). Currently, the implementation of REMDAP is restricted to the five OECS member States participating in the Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWEco) initiative: Antigua and Barbuda, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines. The remaining OECS member States will be included in a subsequent phase under the European Union-funded Biodiversity Support Programme in ACP Coastal Environments (BioSPACE) that will provide support for a data clearing house and improved reporting requirements for the benefit of all OECS member States.

Chapter V
Conclusions

1. The Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) serves as an overarching framework for improved environmental governance in OECS. All independent Protocol Members of OECS are parties to the Escazú Agreement, demonstrating OECS members' strong commitment to, and the value they place on, this key instrument for the advancement of the generation, collection and accessibility of environmental information through, among other means, environmental information systems.
2. Therefore, all independent Protocol Members have an obligation to have an up-to-date environmental information system in place. This highlights the urgent need for a coherent multidimensional approach to adaptation and resilience-building through the use of open-access environmental data and underscores the need for an OECS system. The online database/website of each country's NEIS or statistical office can be interlinked with the proposed OECS system. Where neither exist, EIS will serve as the country's primary information system.
3. Additional efforts must be made to ensure that gaps in the environmental, climate change and disaster data sets of OECS member States are addressed. The sustained collection, production and dissemination of data and indicators are essential for sound policy-making and should be reinforced. Even in countries where an NEIS

is operationalized, core statistics may be made more widely available, and links to sector-specific environmental databases can be added. Where feasible, the extraction of data sets should be facilitated. Other common challenges observed in the subregion as a consequence of technical, financial and human resource constraints include data fragmentation, a lack of protocols for data collection and sharing, a lack of policy awareness in that regard, inconsistent data collection and non-submission or late submission by stakeholders. More opportunities for inter-institutional collaboration at the national level are required.

4. Based on the common challenges that exist in relation to data availability and accessibility, the following actions are recommended:
   - Efforts should be made to increase educational activities and awareness concerning the value of having access to accurate, up-to-date data by, for example, modifying institutional frameworks in order to raise awareness of the different roles involved in data collection. These efforts should be guided by the results of knowledge, attitude and practices surveys conducted in relevant data-producing agencies;
   - Metadata capture should be encouraged in order to reduce the heterogeneity or lack of metadata;
   - Data governance should be improved, access to technical assistance should be increased and more opportunities for capacity-building should be created at the national and regional levels in order to: (i) implement modernized data collection, editing and analysis methods, (ii) enhance the integration of environmental statistics into statistical systems and (iii) build synergies among data-producing agencies. This will increase the harmonization, quality, availability and accessibility of accurate real-time data;
   - The Caribbean Community Regional Strategy for the Development of Statistics 2019–2030, which was established in response to a recognized need for harmonized statistical information, should be drawn upon

for purposes of planning, monitoring and evaluating the development process of the Caribbean. The guiding principles of the Regional Strategy include “assuring comparability of data in and across all Member States”, “pooling statistical skills, expertise and resources at the regional level” and “enabling the development of statistical tools and services at the regional level” (Caribbean Community [CARICOM], 2018, pp. 4–5).

5. In view of the above, a common EIS to assist all OECS member States to meet their international, regional and national commitments is deemed essential. The proposed EIS must comply with the standards set out in the Escazú Agreement, be progressively established and be compatible and aligned with national efforts to generate environmental data and make that information available. International and regional cooperation and support will be crucial to effectively operationalize EIS in the near future.

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This document contains a summary of the progress made towards the establishment of the Organisation of Eastern Caribbean States (OECS) environmental information system with the support of the Economic Commission for Latin America and the Caribbean (ECLAC).

Its purpose is to provide the background, legal framework, key considerations and proposed road map for such a system, in the context of the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement), the Saint George's Declaration of Principles for Environmental Sustainability in the OECS, and other international and regional commitments. It also presents findings on data availability and inventory in six OECS member States, as well as a proposed baseline and conclusions, with recommendations on the way forward.

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