



Forum of the Countries of Latin America and  
the Caribbean on Sustainable Development

Santiago de Chile, 24 April 2019

# Caribbean relevant climate change and disasters indicators for evidence-based sustainable development policies

Information meeting

**Pauline Leonard**

Environment and Climate Change Statistics expert,  
Statistics Division, Economic Commission for Latin America and the Caribbean



UNITED NATIONS

ECLAC

# Outline

1

Background: current situation of the environment SDG indicators production in the Latin American and Caribbean region

2

Climate change and disasters indicators production in the Caribbean SIDS

3

Project: Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies



# 1

Background: current situation of the environment SDG indicators production in the Latin American and Caribbean region



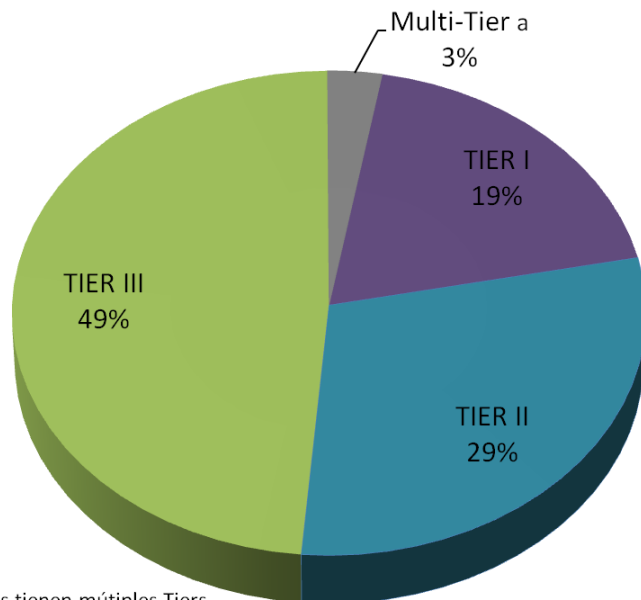
# The demand for environment SDG indicators

## • Environment statistics are required for:

- **105** out of a total of **244** SDG indicators;
- **51%** of targets;
- To inform about **12** out of a total of **17 Goals**.



Clasificación por Tiers 105 Indicadores ODS Ambientales

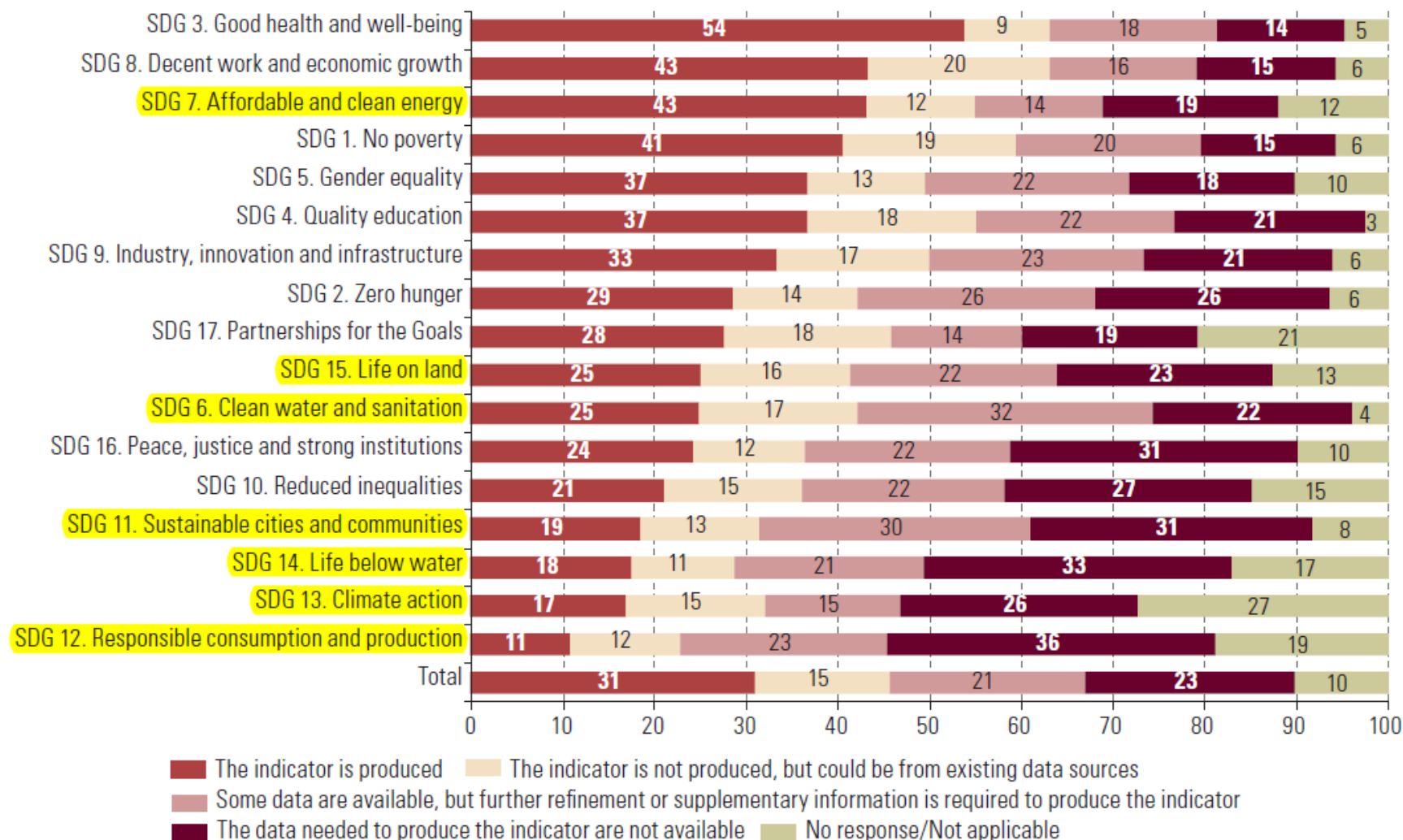


a Tres indicadores tienen múltiples Tiers

Almost half (49%) of the environment SDG indicators are classified as Tier III: they still require internationally accepted methodological development

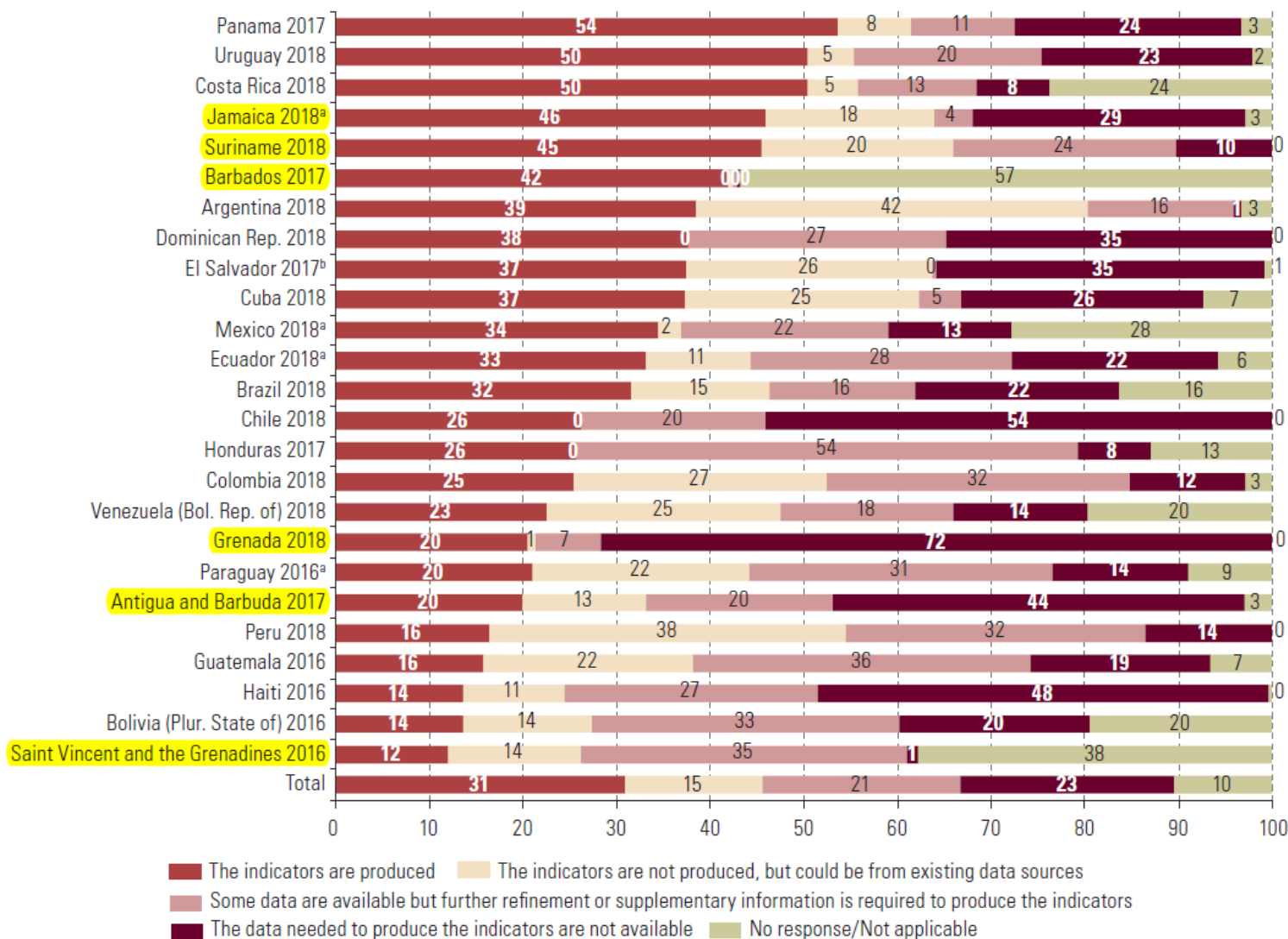
# The regional statistical offer for SDG indicators

**Latin America and the Caribbean (25 countries):<sup>a</sup> Sustainable Development Goal indicators by level of production, 2018**  
(Percentages)



# The regional statistical offer for SDG indicators

## Latin America and the Caribbean (25 countries): production of Sustainable Development Goal indicators by country, 2018 (Percentages)



## 2

# Climate change and disasters indicators production in the Caribbean SIDS

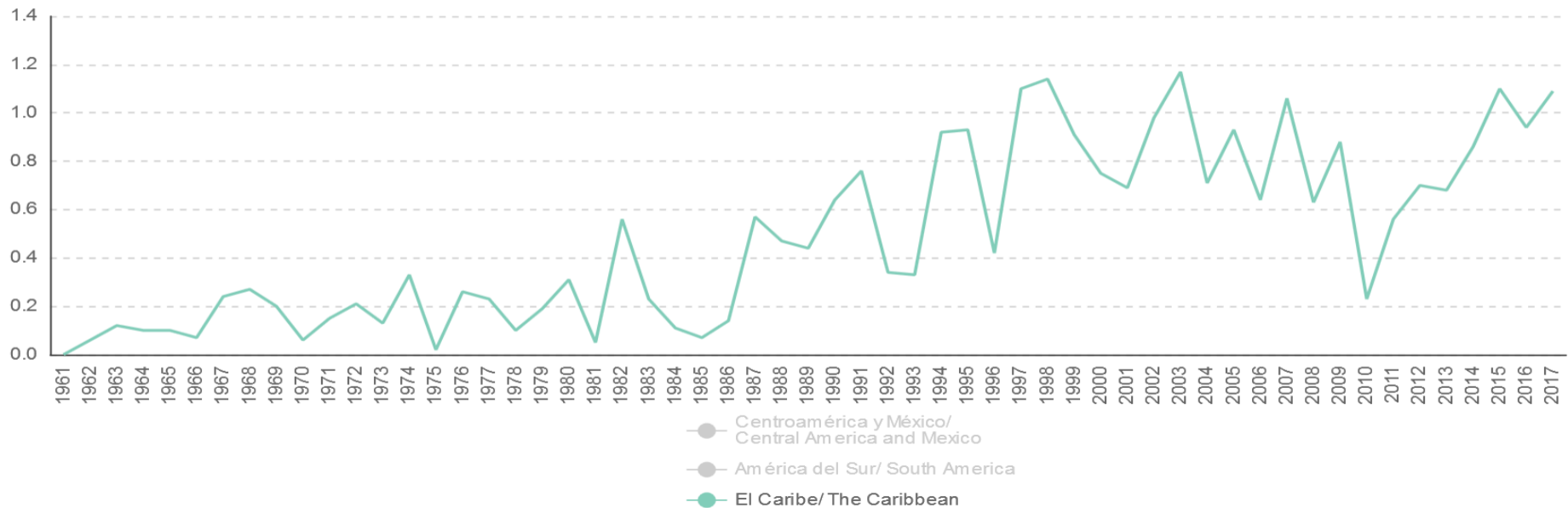


# Measuring climate change in the Caribbean: rise in temperature

LAC accounts for only **8% of the 2014 global GHG emissions**. However, it is acutely vulnerable to climate change consequences, particularly the Caribbean SIDS.

Aggregate estimates put the economic cost of a **2.5°C** rise in temperature for the LAC region at between **1.5% and 5% of the region's current GDP**.

Mean annual temperature change in the Caribbean\*, 1961-2017



Source: Economic Commission for Latin America and the Caribbean (ECLAC), *2018 Statistical Yearbook for Latin America and the Caribbean* (LC/PUB.2019/2-P), Santiago, 2019, based on FAO, *Database for Statistical Data* (FAOSTAT) [online] <http://www.fao.org/faostat/en/#home>.

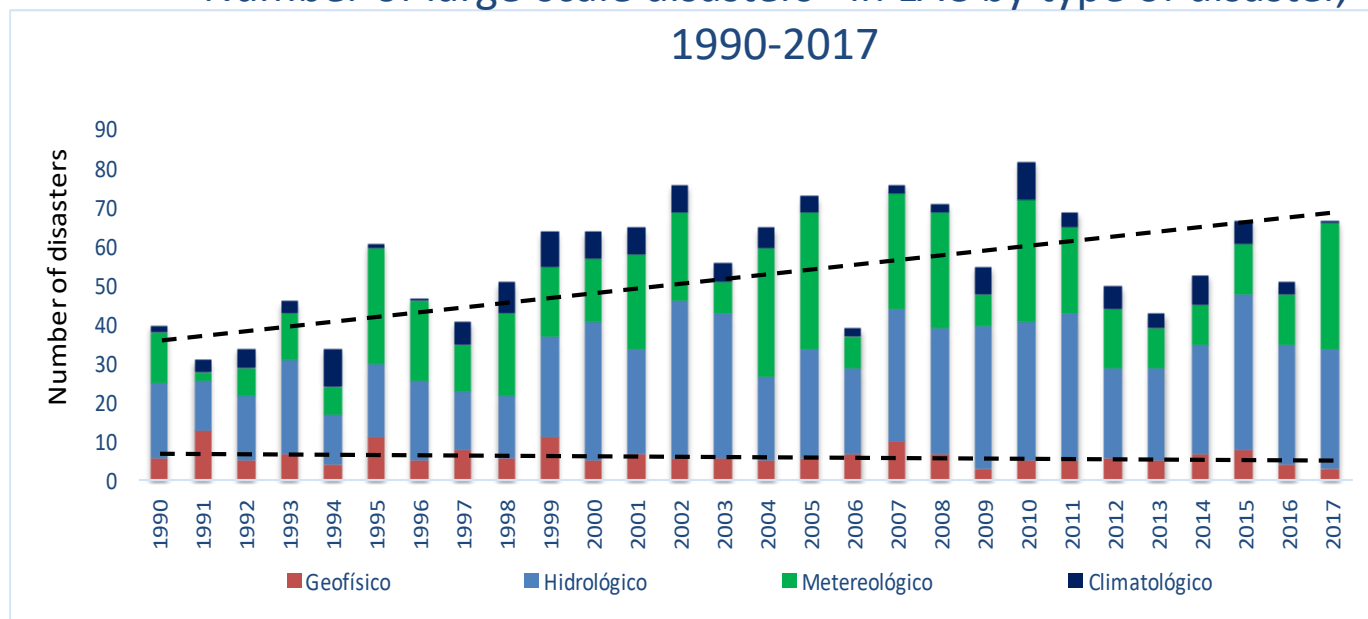
\* Includes Cuba and the Dominican Republic.



# Measuring climate change in the Caribbean: the impact of disasters

The **2017 hurricanes season** in the Caribbean, including category 5-hurricanes Irma and Maria, resulted in **177 deaths** and more than **10 million affected people**.

Number of large-scale disasters\* in LAC by type of disaster,  
1990-2017



Source: EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - [www.emdat.be](http://www.emdat.be), Brussels, Belgium (<http://www.emdat.be>). Entered April 18

\* According to the source, at least one of the following criteria must be fulfilled in order for an event to be entered into the database: (a) 10 or more people deaths; (b) 100 or more people affected/injured/homeless and/or (c) declaration by the country of a state of emergency and/or an appeal for international assistance.

Please note that according to UNISDR, over the last 25 years, small-scale disasters have accounted for more than half of human losses caused by climate events in Latin America and the Caribbean.

# Measuring climate change in the Caribbean: sea level rise



In the Caribbean,  
**14.5%** of residents live  
in **low-elevation  
coastal zones** less than  
10 m above sea level.

More than **50%** of the population live within **1.5 km of the shore**.

# Common **statistical** challenges of Caribbean SIDS related to climate change and disasters statistics and indicators production

- Insufficient production of CC and disasters indicators to meet the ever-growing demand for national evidence-based CC and sustainable development policies
- Some definitions are not statistically operative: climate change adaptation...
- Lack of statistical methodologies to inform about climate change impact and adaptation
- Little advantage taken so far from non-traditional sources of information such as administrative records and geospatial information in the field of climate change and disasters
- Lack of financial support to projects related to environment and CC statistics and indicators compared to non-English speaking countries



# Common **institutional** challenges of Caribbean SIDS related to climate change and disasters statistics and indicators production



- National Statistical Systems relatively less established (above all the environment pillar)
- Less institutionalized environment statistical units within the National Statistical Offices
- Difficulties related to institutional coordination between NSO - Ministry of Environment - disaster preparedness office and other non-statistics mandated public organizations

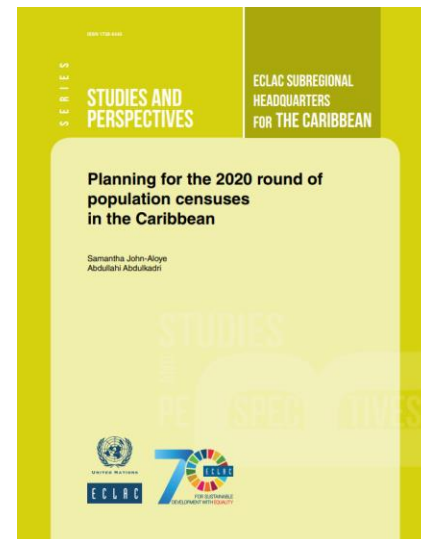
# Caribbean SIDS **opportunities** related to climate change and disasters statistics and indicators production



UNITED NATIONS

ECLAC

- ✓ Environment statistics champions in the Caribbean: Belize, Jamaica, Suriname are part of the Statistical Conference of the Americas working group on Environment Statistics
- ✓ Ongoing work on environment statistics, especially CARICOM within the framework of the CARICOM Regional Strategy for the Development of Statistics (2019-2030) and UNEP with the ILAC initiative
- ✓ 2020 round of population censuses in the Caribbean as a major source of data: to provide important social and climate change information (waste, water, energy, transportation...)
- ✓ Jamaica's STATIN pioneering in measuring impact of disasters on ecosystems (beaches)
- ✓ Possibility of jointly negotiating access to common geospatial information and lowering its cost for climate change and disasters statistics and indicators production



3

Project: Caribbean SIDS  
relevant climate change and  
disasters indicators for  
evidence-based policies





# Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies

## Objective:

To enhance the climate change and disaster risk reduction statistical and institutional capacities of target countries in the Caribbean to improve policy coherence in the implementation of the SDGs, the SAMOA Pathway, the Paris Agreement, and the Sendai Framework.

## Expected results:

- ✓ Strengthened national statistical and institutional capacities of Caribbean SIDS to sustainably produce and disseminate relevant internationally agreed climate change and disaster risk reduction indicators
- ✓ Strengthened regional capacities of Caribbean SIDS stakeholders to use the indicators for sustainable evidence-based development policies

# Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies

## Focus of the project:

- Two-pronged approach: both **sub-regional** activities and **national** direct technical assistance to selected pilot countries
- **Specialized statistical support** to identify and produce selected, relevant and prioritized indicators and metrics to monitor **climate change and disaster occurrences and impacts**, including those affecting economic activities (such as tourism) and environmental integrity
- Capacity-building **tailor-made** to circumstances, policy priorities, and statistical capacities (including data availability) of the Caribbean countries
- **Sustainability of training process**: community of practitioners (experience of the regional LAC network of environment statistics), webinars, online training modules...

## Implementing Entity and partners

- ECLAC (environment and climate change statistics area, HQ and sub regional HQ for the Caribbean)
- To be confirmed: other UN partners, CARICOM and other relevant Caribbean stakeholders.





# Who are we?

- Environment and Climate Change Statistics Area, Statistics Division, ECLAC
- ECLAC Subregional Headquarters for the Caribbean, Port of Spain

3

## MAIN LINES OF WORK

### Strengthening national and regional technical capacities

#### 3.1 Technical Assistance

Provide technical support to countries of the Latin America and the Caribbean region for the development and strengthening of national capacities to produce environment and climate change statistics and indicators. To promote a sustained production, the supported statistics and indicators are in line with the implementation strategy of both the 2030 Agenda and the national development plan.

#### 3.2 Seminars and Regional Workshops

- Prepare, implement and follow-up regional seminars and workshops, and foster peer learning among countries in the region
- Organize regional expert seminars and meetings on environment and climate change statistics, indicators and environmental accounts

#### 3.3 Regional Network of Environment Statistics for Latin America and the Caribbean

Facilitate a space for exchange, discussion and dissemination of the environmental statistical heritage of Latin America and the Caribbean. Which in turn will contribute to catalyze the development and strengthening of the environment and climate change data, statistics, indicators and environmental accounts in the countries of the region.

<https://comunidades.cepal.org/estadisticas-ambientales/es>

#### 3.4 Statistical methods and recommendations

Compile and disseminate international methods and recommendations for the strengthening and harmonization of environment statistics in the region, as well as participate in the development and translation of methodologies for environment statistics, indicators and environmental accounts.

#### 3.5 Technical Secretariat of the Working Group on Environment Statistics

Serve as Technical Secretariat of the Working Group on Environment Statistics of the Statistical Conference of the Americas of the ECLAC (CEA-CEPAL), and support the following working groups: Agricultural Statistics; Measurement and Registration of Indicators Related to the Reduction of the Risk of Disasters; and Water, Sanitation and Hygiene Statistics.

#### 3.6 Statistical Database CEPALSTAT

CEPALSTAT presents relevant official statistics for the region, produced by national and international organizations. It aims at connecting with a wider spectrum of users and, hence, contribute to the dissemination of indicators describing the main issues and trends of the regional environmental landscape.

<http://estadisticas.cepal.org/cepalstat/portada.html?idioma=spanish>

#### 3.7 Statistical Yearbook for Latin America and the Caribbean

The yearbook contains a chapter that visually presents relevant environment indicators for the countries of the region.

[www.cepal.org/es/publicaciones](http://www.cepal.org/es/publicaciones)



Forum of the Countries of Latin America and  
the Caribbean on Sustainable Development

Santiago de Chile, 24 April 2019

# Looking forward to listening to you!

Environment and Climate Change Statistics Area  
Statistics Division, ECLAC  
[pauline.leonard@un.org](mailto:pauline.leonard@un.org)



UNITED NATIONS

ECLAC

<https://www.cepal.org/en/headquarters-and-offices/eclac-caribbean>  
<https://www.cepal.org/en/topics/environmental-statistics>

# Why do we need to invest in statistics?

➤ Because it allows decision-makers to get a clear picture of the current and historical changes in the environment and its linkages with society

➤ Because it allows the monitoring of the impact of public policies

➤ Because it is more cost effective and sustainable to invest in long-term institutionalized national statistical systems than ad-hoc requests

➤ Because it calls for institutional collaboration thus ensuring consensus between the stakeholders and improving the statistical culture within the public administration

➤ Because official statistics are recognized for their high standards, rigor and quality, backed by the fundamental principles of statistics

➤ Because sustainable, viable and quality statistics are costly (human resources, tools...)