Environment, climate change and disaster statistics and indicators in Latin America and the Caribbean

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Background in the region
Availability of climate change and disasters-related statistics and indicators in the Latin America and the Caribbean

Depending on the country the situation varies, but in general:

- **Climate process drivers:**
  - Statistics relatively more available (energy, agriculture, other economic activities and GHG net emissions).

- **Climate change evidence:**
  - Historical data series available for precipitation and temperature variation (terrestrial and seas).

- **Climate change impacts and vulnerability:**
  - Data available for occurrence and impact of disasters on affected people. Economic losses due to disasters less available.
  - Sea level rise data is less available.

- **Mitigation**
  - Energy renewability, energy intensity of GDP, forest cover and disaster preparedness data relatively more available.

- **Adaptation:**
  - The least developed and more difficult to capture statistically (spatially specific programs and measures).
Mean annual temperature change, Degrees Celsius, 1961–2019

Forest cover
Thousands of hectares and percentages, 1990-2020

Greenhouse gas (GHG) emissions, Million tons of carbon dioxide equivalent, 1990-2016

Carbon and energy intensity of GDP, Tons of CO2 and thousand USD dollars of GDP, 1990-2016

Source: FAO, Database for Statistical Data (FAOSTAT), includes Cuba and the Dominican Republic

Source: ECLAC, calculated based on FAO, Global Forest Resources Assessment

Notes:
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Notes:
• Source: CEPAL, based on CAIT, http://cait.wri.org/
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Disaster Indicators

Number of disasters and people affected

Cumulative economic cost, by type of disaster

[Key notes:]


Our products and platforms


  Regional climate change profile is working progress

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**PRINCIPALES CIFRAS DE AMÉRICA LATINA Y EL CARIBE**

<table>
<thead>
<tr>
<th>Indicador</th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
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<tbody>
<tr>
<td>POBLACIÓN TOTAL</td>
<td>653,962</td>
<td>632,345</td>
<td>611,722</td>
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<td>POBREZA EXTREMA</td>
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<td>13.3%</td>
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<td>TASA DE DESOCUPACIÓN</td>
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<td>9.1%</td>
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<tr>
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<td>113,852</td>
<td>112,345</td>
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</tbody>
</table>

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*En América Latina y el Caribe se observa una expansión acelerada de la superficie cosechada durante los últimos 50 años, destacando el aumento de la superficie cosechada destinada a la soya, que durante los últimos diez años se ha visto incrementada en más de 14 millones de hectáreas.*
Our products and platforms

- **Statistical Yearbook (Environment Statistics Chapter):**
  
  https://www.cepal.org/es/publicaciones/ae

- **Covid-19 impact in air pollution in cities (LA):**
  

- **COVID-19): systems approach to disaster risk in the Caribbean**
  

- **Environment Statistics Biblioguide**
  
  https://biblioguias.cepal.org/estadisticasambientales

- **Regional Network of Env Stats:**
  
  https://comunidades.cepal.org/estadisticas-ambientales/es
ECLAC project: Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies

UN ECLAC : Caribbean First Strategy
ECLAC Caribbean project (1/2)

**Project 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.

**Partners:**
In collaboration with UNSD and CARICOM Secretariat.

**Project Expected results:**
**At the national level:**
- Strengthened national statistical and institutional capacities of Caribbean countries to sustainably produce and disseminate relevant internationally agreed climate change and disasters indicators.

**At the regional level:**
- Strengthened regional capacities of Caribbean practitioners to use the indicators for sustainable evidence-based development policies
- Establish a geo-referenced resilience database of the occurrence and impact of hazardous events and disasters in the Caribbean
ECLAC Caribbean project (2/2)

Planned Activities 2021:
- Workshops “Generating climate change and disasters indicators for policy decision-making” in: Suriname (held on July), Saint Lucia (Nov), Antigua and Barbuda (first week of Dec)
- Two Side-Events to exchange lessons learned and experiences: to the 52nd session of the UN Statistical Commission (held on Feb) to the Statistical Conference of the Americas of the ECLAC (Nov).

Planned Activities 2022:
- Workshops “Generating climate change and disasters indicators for policy decision-making” in: Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Vincent and the Grenadines
- One online training module created for and delivered to English-speaking Caribbean countries.
- A dedicated Caribbean English-speaking countries online discussion group created within the existing Regional Network on Environment Statistics and two webinars delivered for both target and non-target countries.

Planned Activities 2023:
- One final Caribbean subregional workshop delivered for all Caribbean countries

https://comunidades.cepal.org/estadisticas-ambientales/es
Technical Assistances in the region
Remote Technical Assistant

Activities

1. To **support the measurement of environmental and climate change indicators** for the construction and maintenance of a system of national environmental indicators:
   Argentina, Bolivia, Cuba, and Dominican Republic.

2. To **strengthen capacity building**, with an Introductory training course on environment statistics used:
   - First delivered for **Panama** (Nov 2020),
   - Second for **Dominican Republic** (May 2021)
   - Third for **Ecuador** (Dec 2021)
   - **Blended methodology**, combining:
     - Could be customized for any country in the region
     - Self-paced modules,
     - Weekly live webinars with the trainers,
     - Exercises with real administrative records data and metadata,
     - One tutor for each 15-20 participants

3. To **promote the generation of Ecosystem Accounting**, in 2022 will carry on a training in the entire region that will cover conceptual and practical issues with technically sessions.

4. To **support the production of climate change statistics and indicators**, based on the Global Set.
Regional challenges
Statistical and Institutional challenges

Statistical challenges:

- Insufficient and/or irregular collection of environmental, climate change and disasters data within National Statistical Systems.
- Newer sources of statistical information underutilized (i.e., remote sensing, geospatial, monitoring stations and administrative records)
- Methodologies to measure some aspects of climate change and adaptation, and disaster risk, impact and resilience are under development

Institutional challenges:

- Institutionalization and regular budget allocation needed in both NSOs and line ministries and authorities in the context of National Statistical Systems
- Inter-agency technical capacities and common language is needed (hence this project) for all teams in all relevant institutions
- Insufficient institutionalized regular statistical cooperation among NSO - Ministry of Environment – Disaster/Emergency, line Ministries and Academia
Thank you!

Environment, Climate Change Statistics Area
ECLAC Statistics Division