



Sixth Meeting of the Expert Group
on Environment Statistics
New York, 21-23 May 2019

Disaster statistics and indicators in Latin America and the Caribbean

Sixth Meeting of the Expert Group on Environment Statistics
Session Three: Climate Change Statistics – Thursday 23rd 2019

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División de Estadísticas, Comisión Económica para A. Latina y el Caribe



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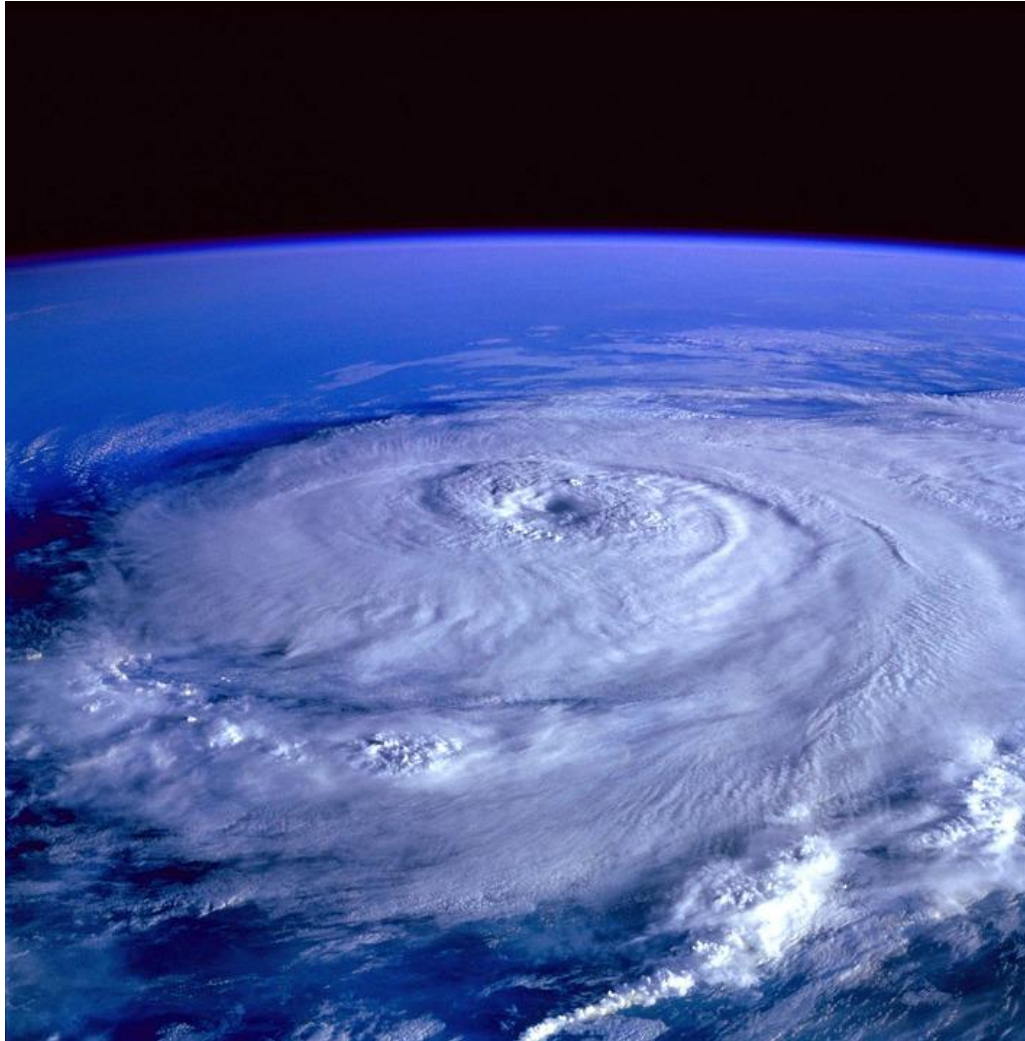


Irma, José, María: intense 2017 hurricane season in a highly-vulnerable region



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Roseau, Dominica's capital city after Maria, Sept. 2017



La Habana after Irma, Sept 2017



1

**Selected LAC extreme events and disasters
SDG/Sendai indicators**

2

**The role of National Statistical Offices in measuring
hazardous events, disasters and disaster risk reduction**

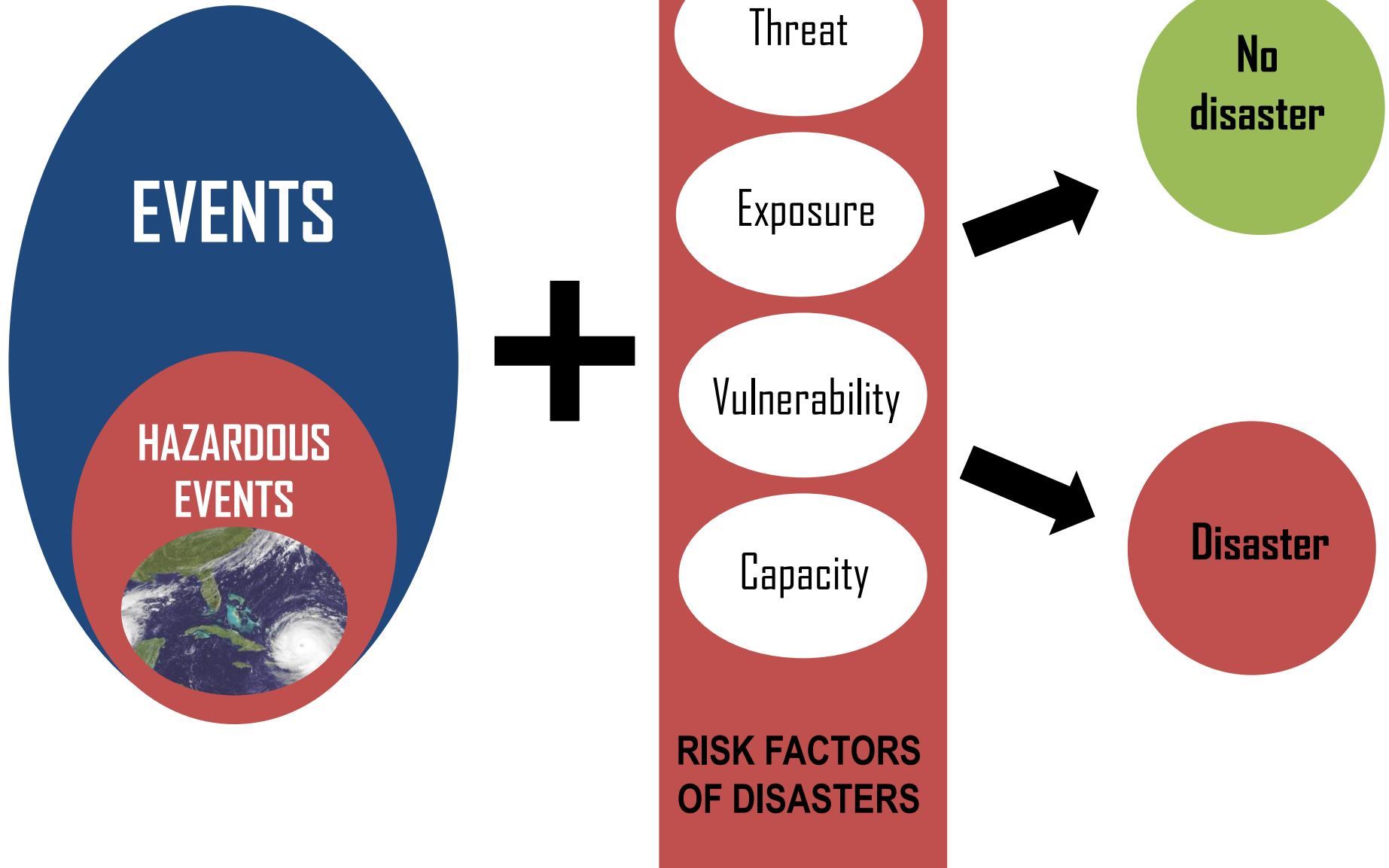
1. Data availability
2. Challenges and opportunities for disaster statistics production in LAC

3

Recommendations and next steps



When extreme events turn into disasters





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A. Selected LAC extreme events and disasters SDG/Sendai indicators

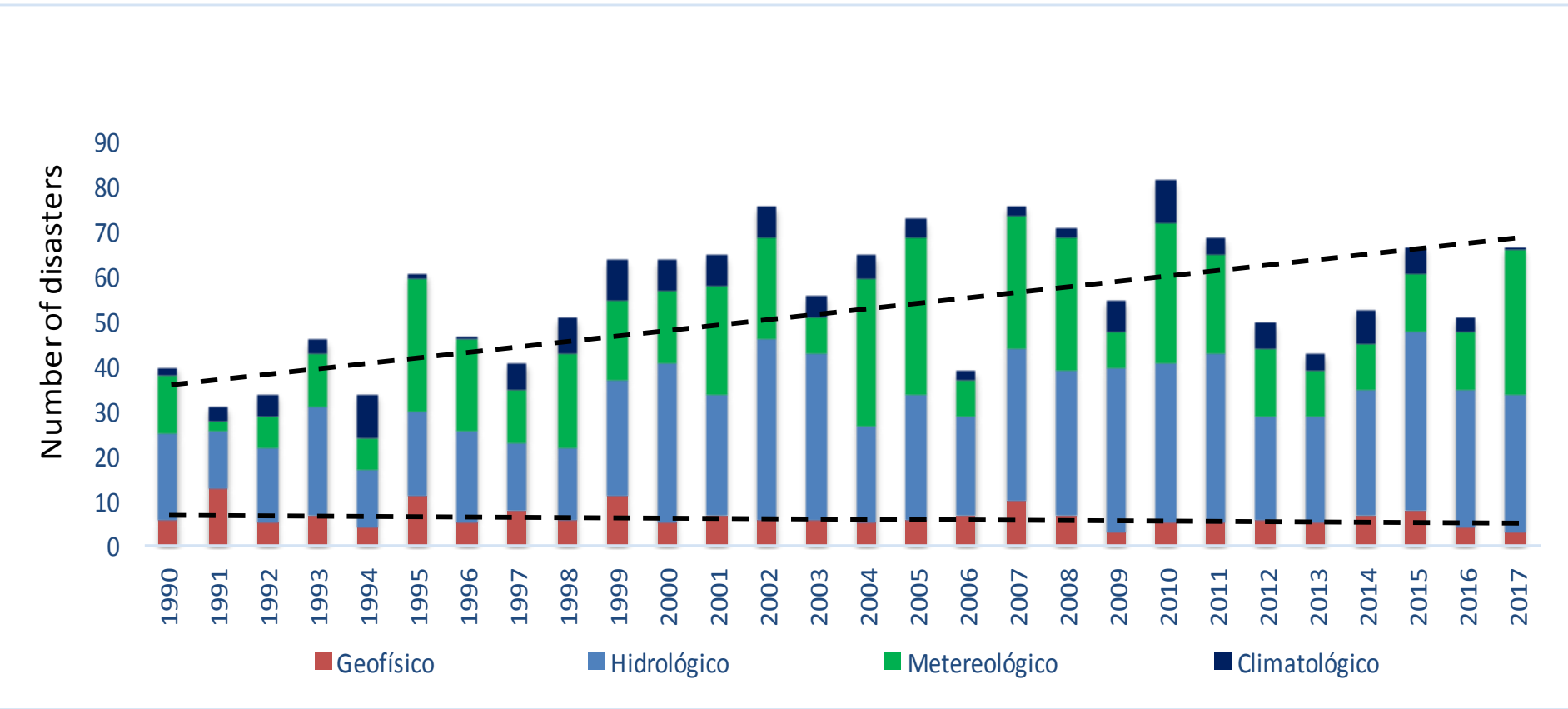


Number of disasters in LAC, 1990-2017, by type of disaster



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Source: EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium (<http://www.emdat.be>). Entered April 2018

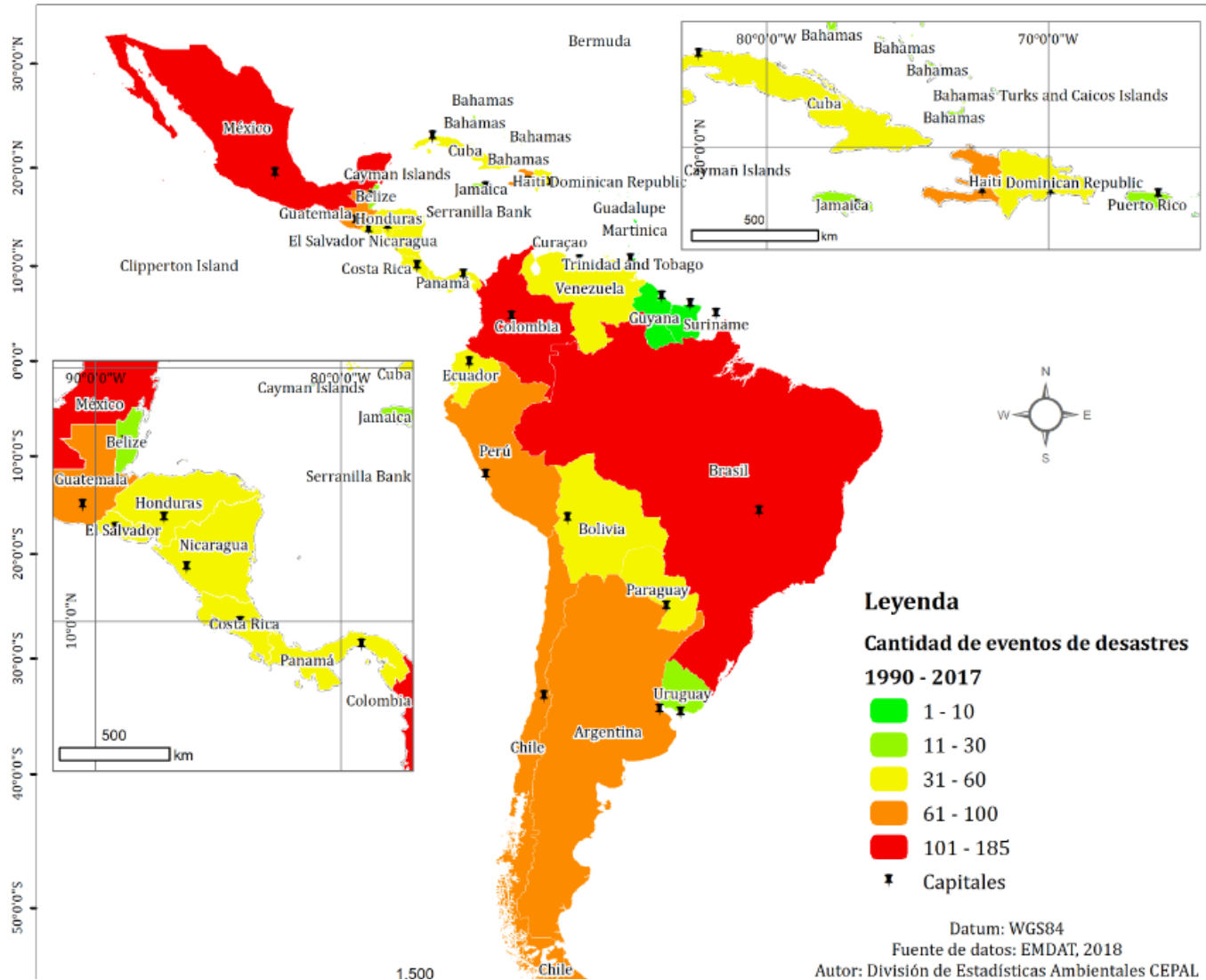


Map of LAC by number of disasters, 1990-2017



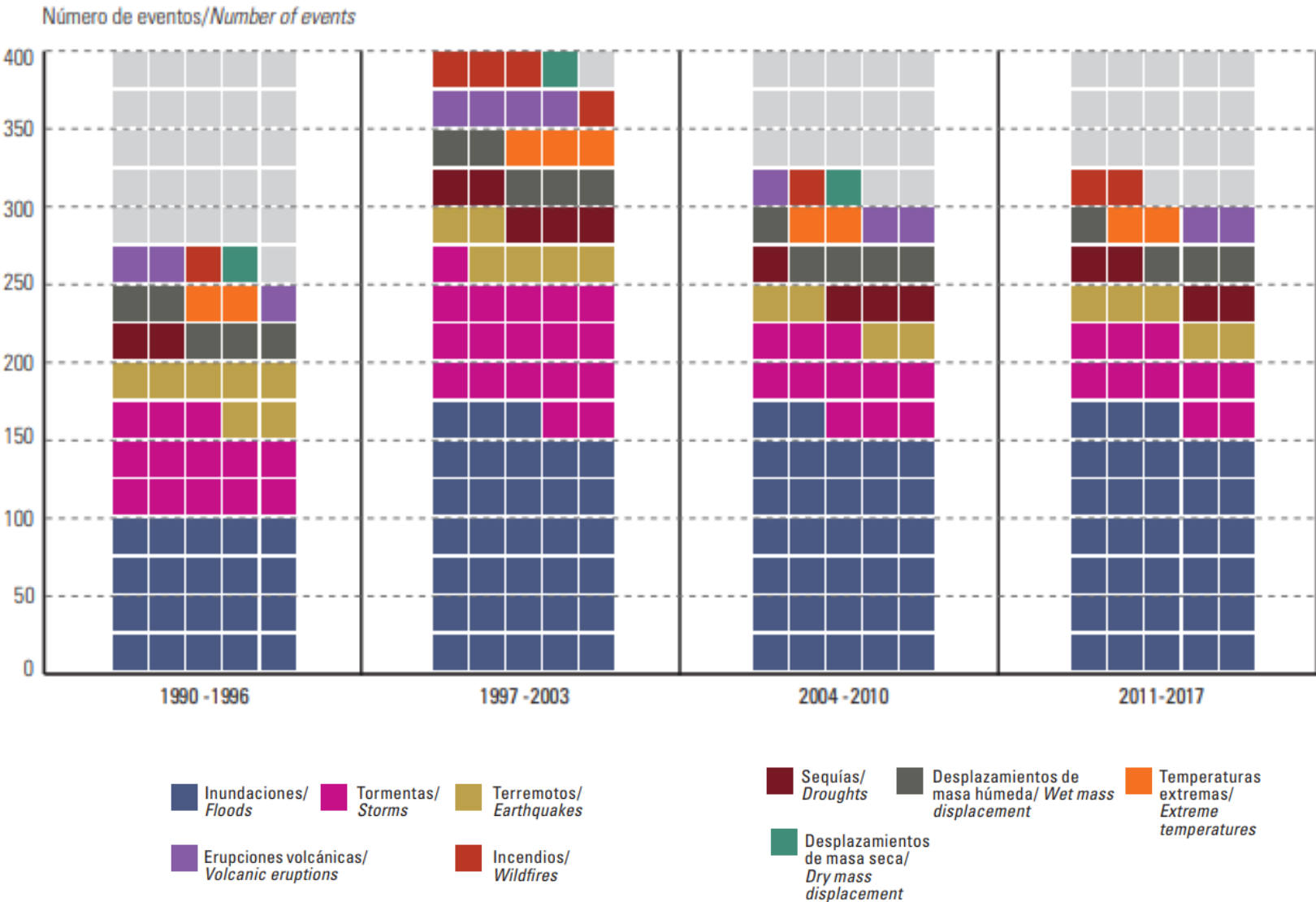
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Source: EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium (<http://www.emdat.be>). Entered April 2018

Number of disasters in LAC, 1990-2017



Cada cuadrado representa 5 eventos. En el caso de los desplazamientos de masa seca, cada cuadrado representa menos de 2 eventos.

Fuente: Source: EM-DAT: The Emergency Events Database - Universite catholique de Louvain (UCL) - CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium (<http://www.emdat.be>). Actualizado en abril de 2018

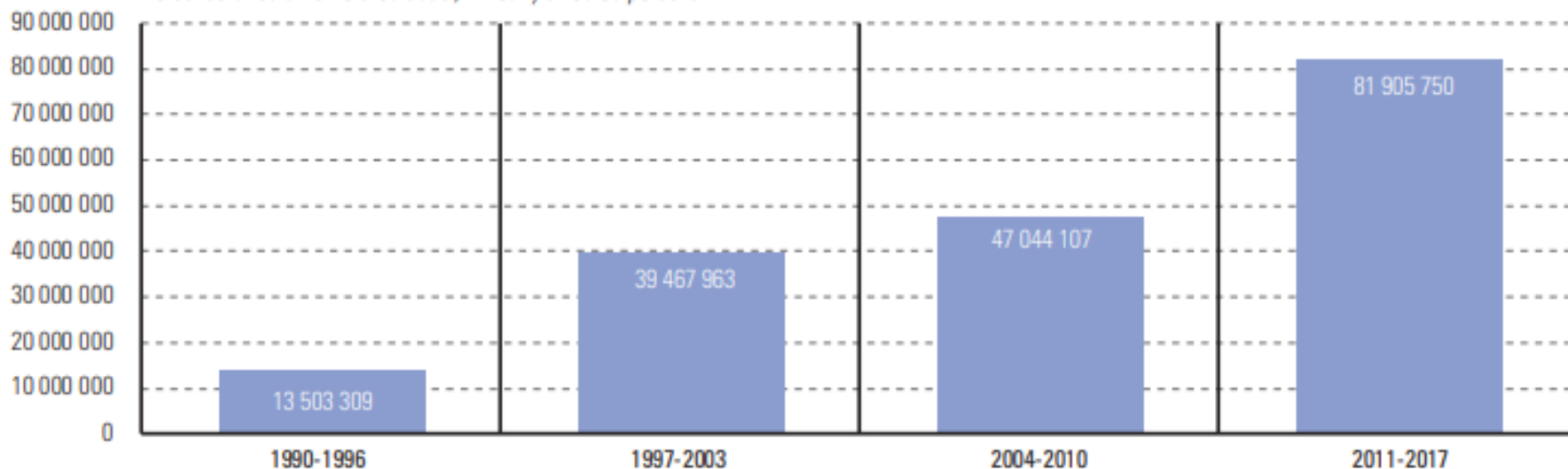


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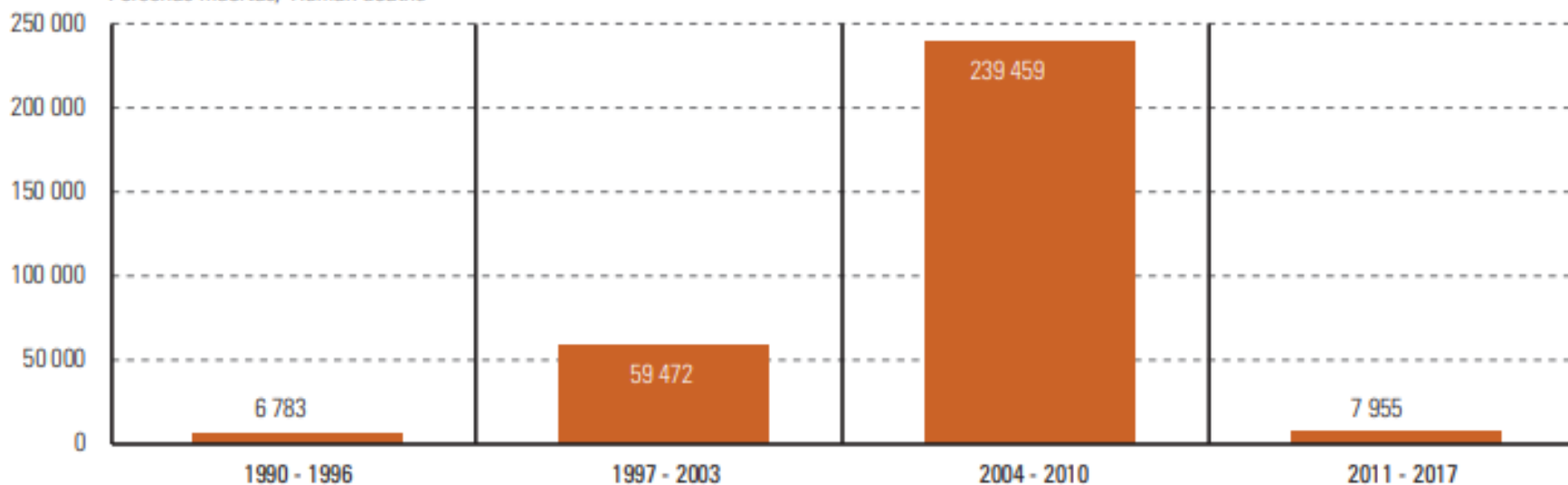
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Number of human deaths and directly affected persons due to disasters in LAC, 1990-2017

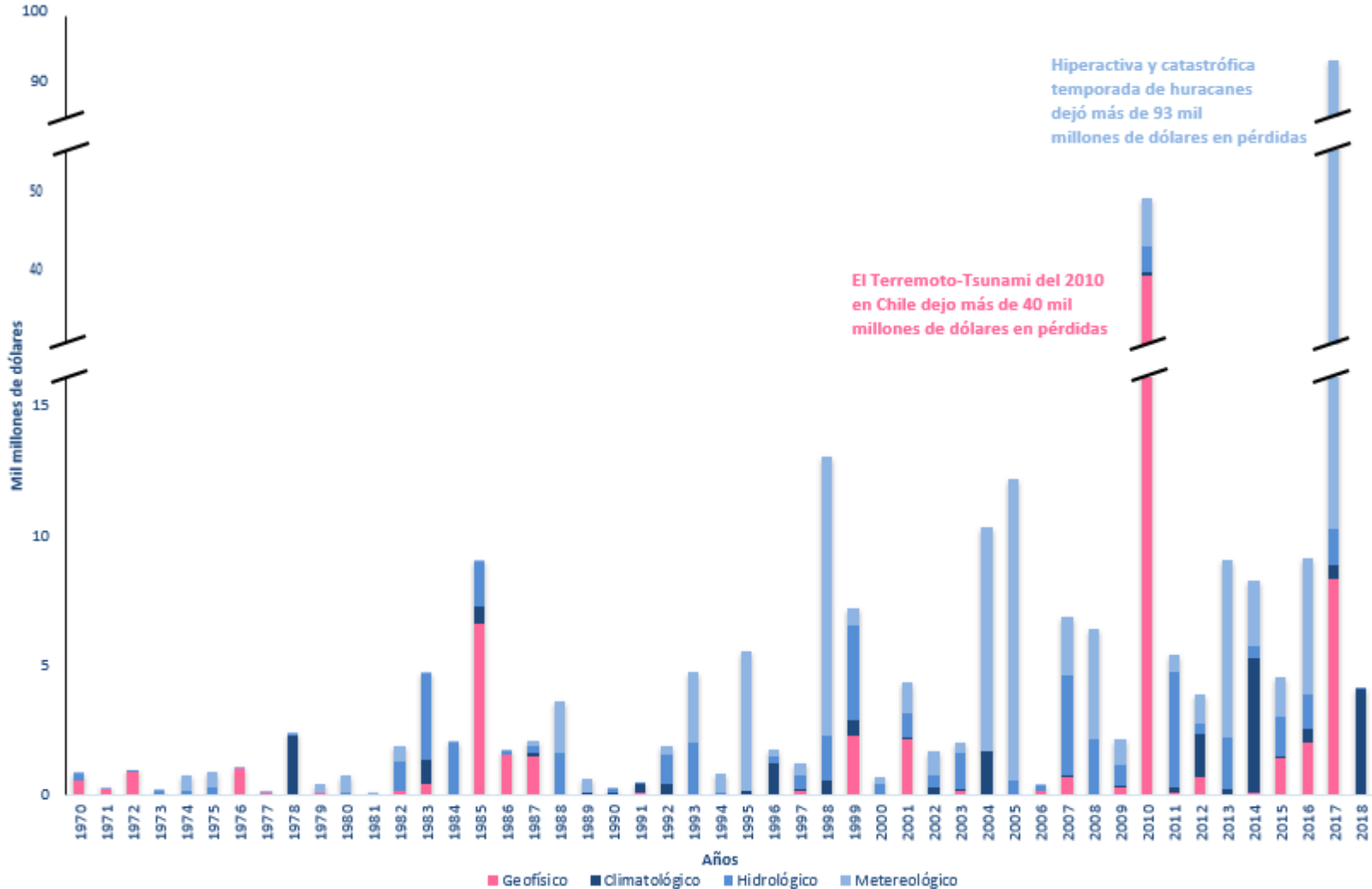
Personas directamente afectadas / *Directly affected persons*



Personas muertas / *Human deaths*



Economic costs (US\$) of disasters in LAC 1970-2018 by type of event



NOTA: El VALOR de todos los daños y pérdidas económicas directa o indirectamente relacionadas con desastres en las últimas 5 décadas asciende a 316 mil millones de dólares, esto representa el doble del PIB de Ecuador en el año 2017 y supera el PIB de Colombia en el año 2017

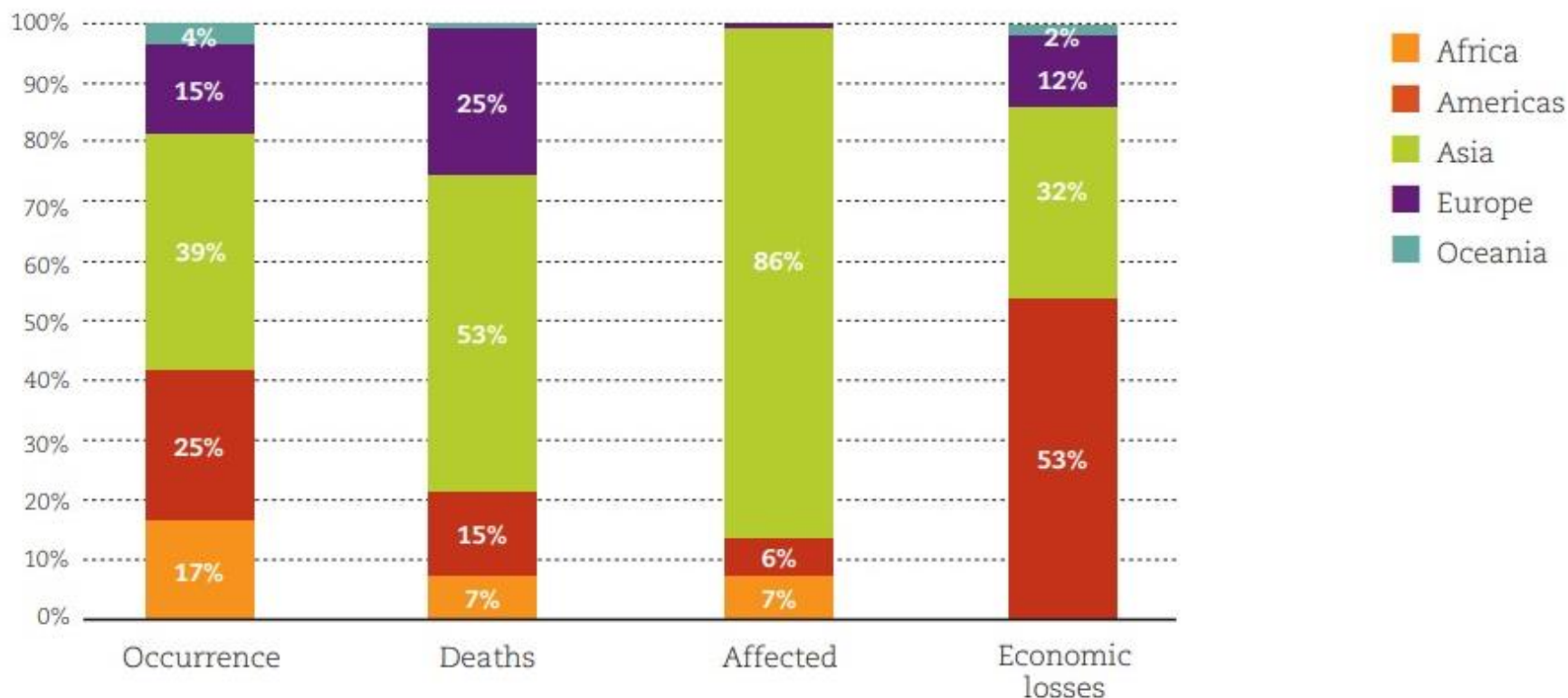
FUENTE: Universidad Católica de Lovaina, Centro para la Investigación de la Epidemiología de los Desastres (CRED), base de datos internacional de desastres (EM-DAT) [en línea] <http://www.emdat.be//Catholic>

Relative human and economic costs of climate-related disasters on continents 1998-2017



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Fuente: Economic losses, Poverty and Disasters, 1998-2017, Université Catholique de Louvain (UCL) - CRED and UNISDR, 2019.



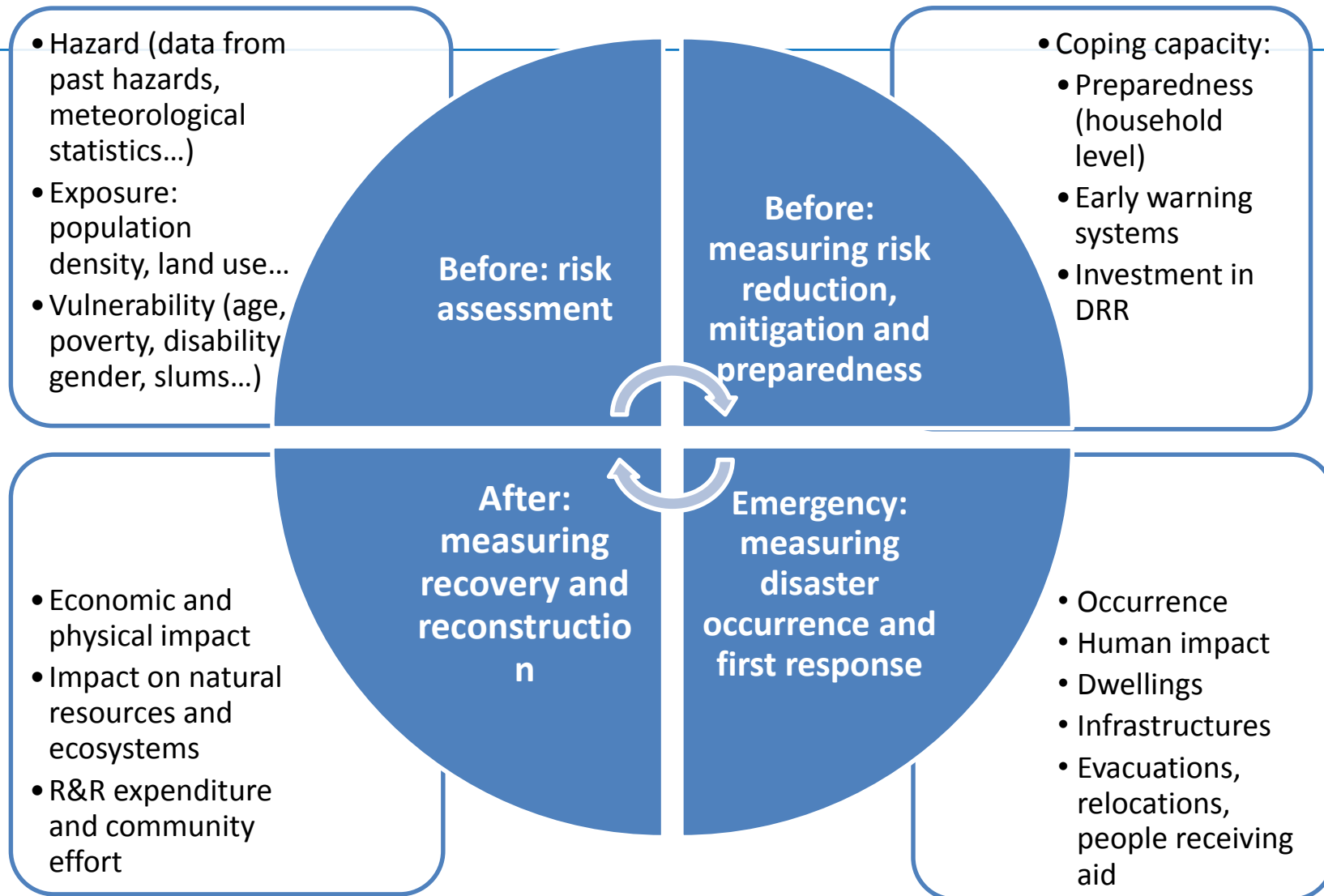
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B. The role of National Statistical Offices in measuring extreme events, disasters and disaster risk reduction



The role of National Statistical Offices in measuring extreme events, disasters and disaster risk reduction

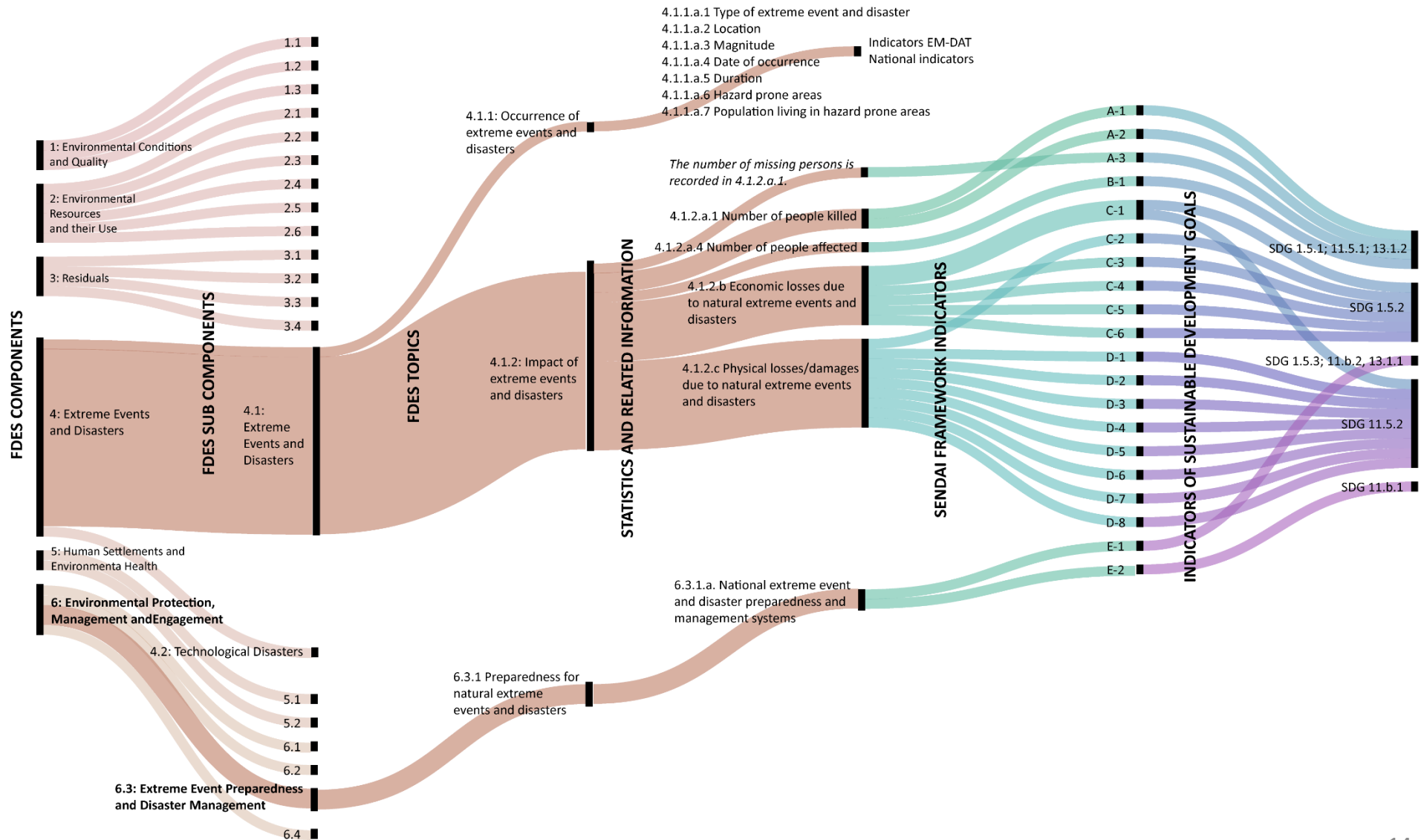


Matching between the Framework for the Development of Environment Statistics (FDES) and Sendai/SDG indicators



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B1. Data availability at the national level in the LAC region



ECLAC survey on national statistical capacities to produce disaster-related SDG indicators

Inventory of national capacities to produce SDG indicators

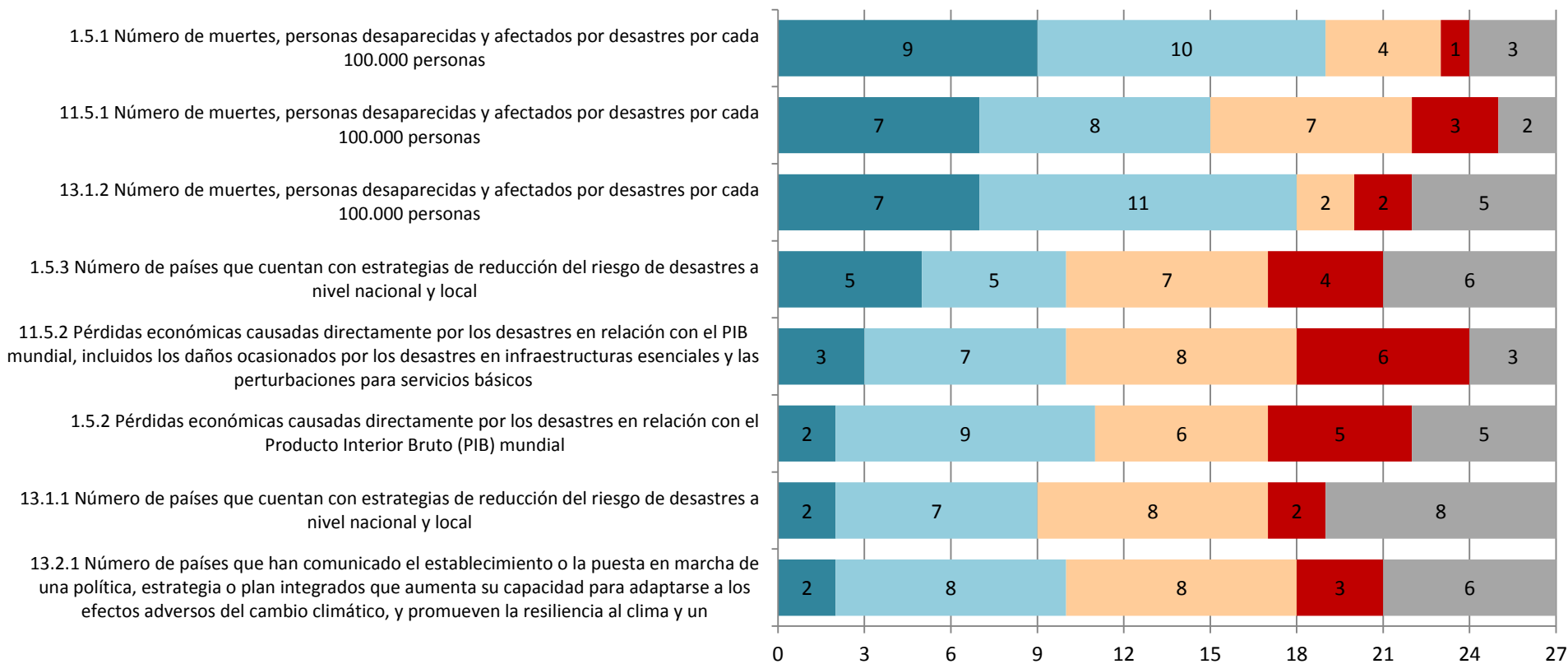


- 26 countries have completed the questionnaire
- Regional diagnosis presented to the Forum of the LAC countries on Sustainable Development, Mexico City, April 2017
- Online platform to access and process the information available for all the responding countries and to the statistical instances of UN-Agencies and the international organizations in LAC to define capacity building strategies



ECLAC survey on national statistical capacities to produce disaster-related SDG indicators

Results: disaster-related SDG indicator statistical production, by indicator

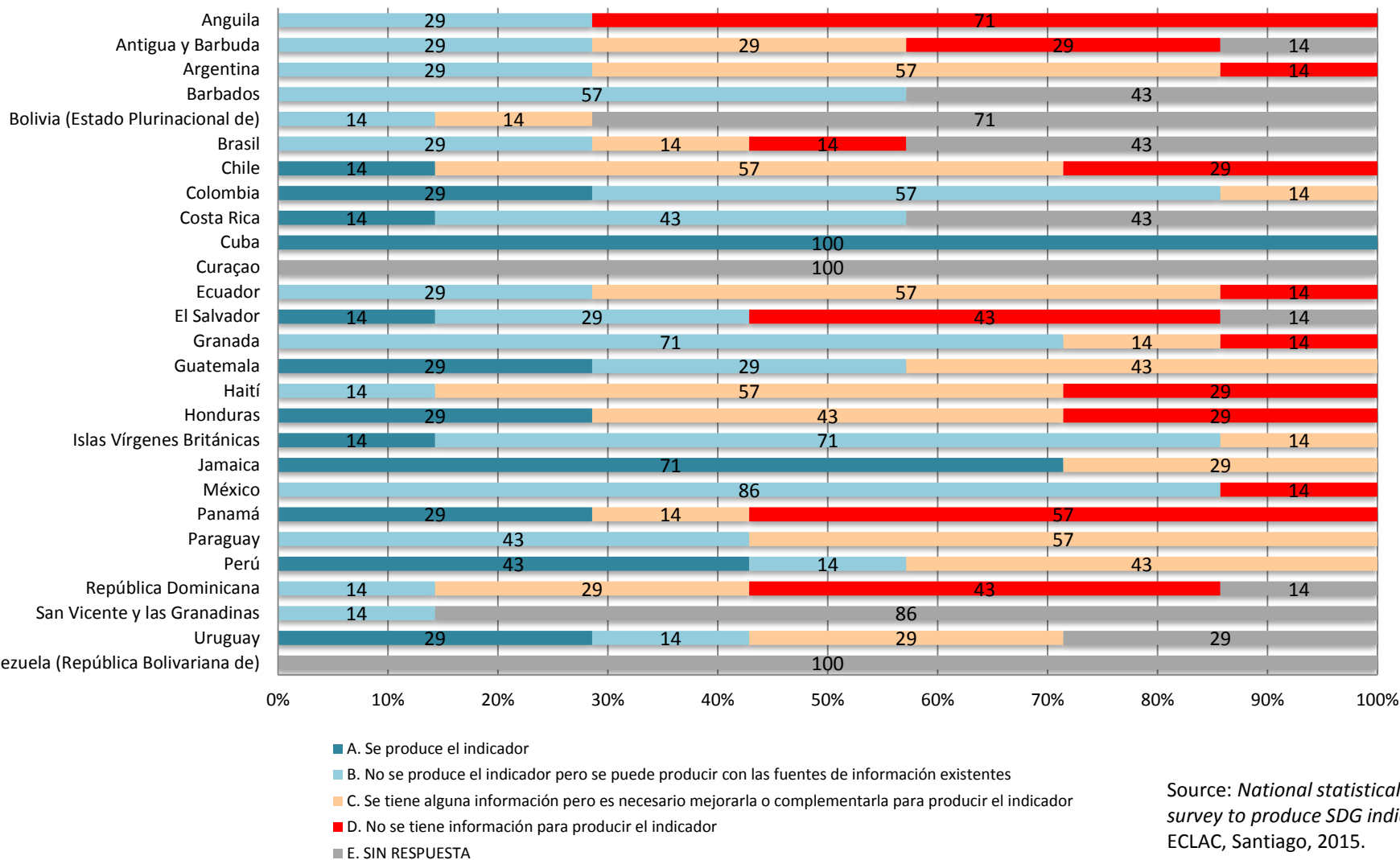


- A: Se produce el indicador
- B: No se produce el indicador pero se puede producir con las fuentes de información existentes
- C: Se tiene alguna información pero es necesario mejorarla o complementarla para producir el indicador
- D: No se tiene información para producir el indicador
- F: Sin respuesta

Source: National statistical capacities survey to produce SDG indicators, ECLAC, Santiago, 2015.

ECLAC survey on national statistical capacities to produce disaster-related SDG indicators

Results: disaster-related SDG indicator statistical production, by country

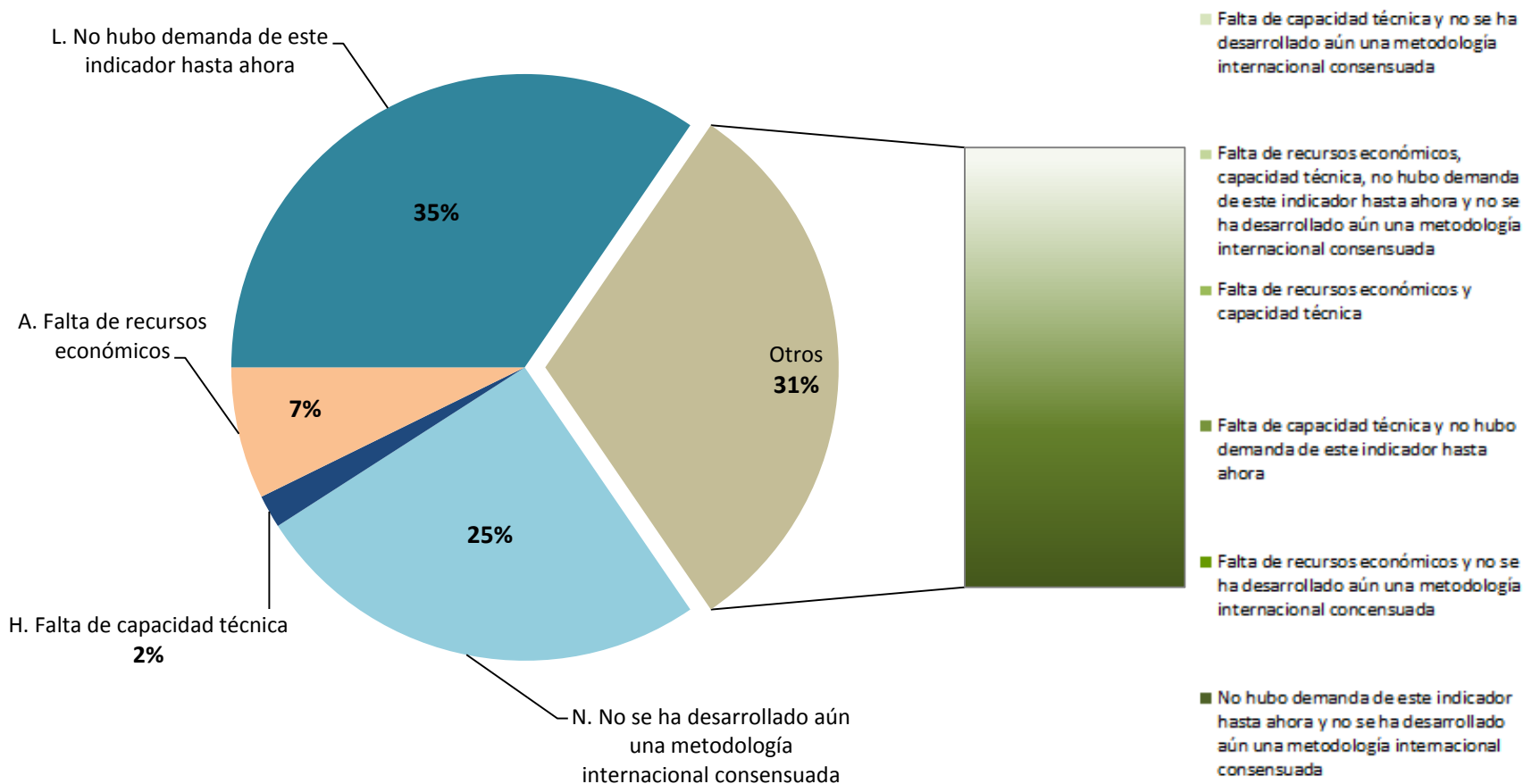


Source: *National statistical capacities survey to produce SDG indicators*, ECLAC, Santiago, 2015.



ECLAC survey on national statistical capacities to produce disaster-related SDG indicators

Why are the indicators not produced?



Source: *National statistical capacities survey to produce SDG indicators*, ECLAC, Santiago, 2015.



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B2. Challenges and opportunities for disaster statistics production



- The required data is not collected or data quality does not reach minimum statistical standards
- Multiple and discrepant data sources (administrative registers, remote perception, surveys...)
- Differences between international statistical definitions and national ones (diversity of hazards, diversity of impacts, thresholds...)
- Some definitions are not statistically operative

Institutional challenges



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- Insufficient awareness of the use and need of statistics
- Inter-institutional coordination mechanisms are not in place or not well functioning
- Dialogue between decision-makers (who need to make emergency time-sensitive decisions) and statisticians building national statistical patrimony according to international principles and guidelines is difficult
- Complexity of impact and DRR assessment: requires national accounting and multi-stakeholders participation (i.e. NGOs, insurance companies, academia), which are non-traditional partners for National Statistical Offices



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Key challenge:

how do we statistically measure resilience?



Opportunities for disaster statistics production



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- Considerable and untapped potential of geospatial information in disaster and DRR statistics:
 - To take advantage of remote perception and sensors to produce new data and statistics
 - To geographically represent disaster and DRR indicators, which adds value and allows for better decision-making
- Historical opportunity with Sendai/SDG monitoring frameworks: Very strong push towards disaster and DRR statistics in many LAC countries and from the international community
 - Assessment (including NDC indicators)
 - Awareness and advocacy
 - Capacity building
 - Regional dialogue and methodology harmonization

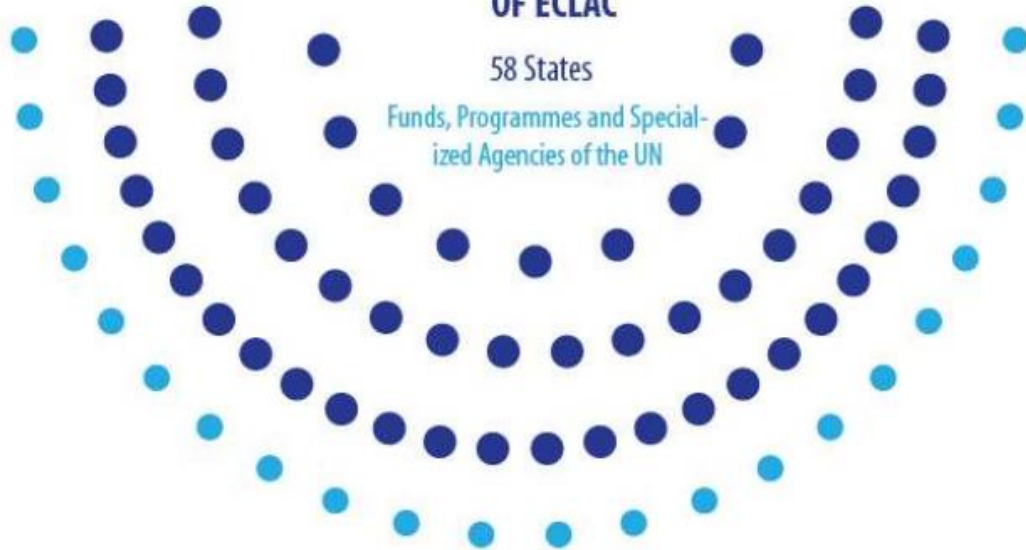


Regional statistical mechanism: the DRR statistics working group (SCA)

STATISTICAL CONFERENCE OF THE AMERICAS OF ECLAC

58 States

Funds, Programmes and Special-
ized Agencies of the UN



Promote the development and improvement of national statistics and
work to ensure that they are comparable internationally

14 Working Groups



- WG: 11 member States
- Paraguay and Peru as coordinators
- Technical secretariat: UNISDR-Americas with support from ECLAC
- ECLAC is part of the global partnership on disaster statistics with ESCAP, UNSD, UNISDR and UNECE

Conclusion

- Seize the historical opportunity to strengthen disaster occurrence and impact statistics and indicators
 - ECLAC regional programme on climate change and disasters indicators framework: looking for partners
- We need to raise awareness and invest in quality Disaster statistics not only to properly monitor and implement **national DRR policies and Sendai** but also:





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Thank you

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