DA12 project national online workshop:

Generating climate change and disasters indicators for policy decision-making in Suriname

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Relevant statistical classifications and typologies

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International classifications and its importance

1. What is a statistical classification?

It is a set of discrete, exhaustive and mutually exclusive categories which can be assigned to one or more variables used in the collection and presentation of data, and which describe the characteristics of a particular population (universe).

2. Why do we need international statistical classifications?

It is a fundamental need for any statistical system to have standard concepts, definitions and categories.

The aim is to provide a basis for:
1. Statistics that are reasonably comparable between countries and within counties;
2. Developing and adapting national classifications for the same variable/characteristics
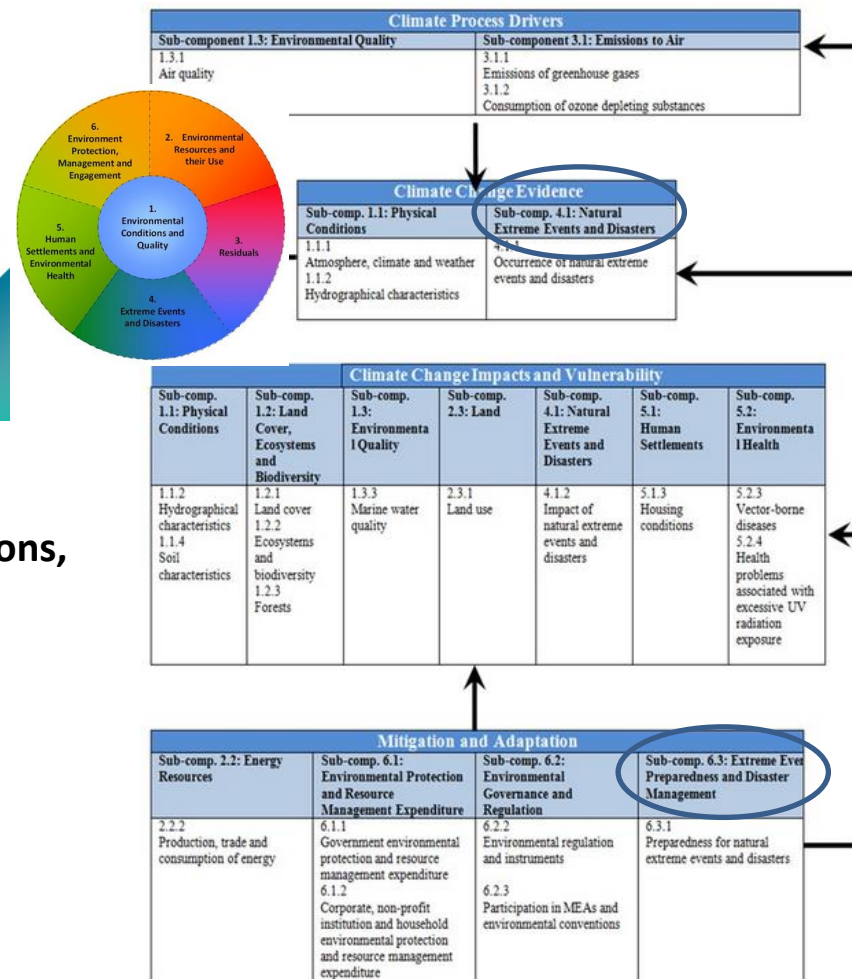
Classifications and environment statistics

Statistical Classifications

Chapter 5

Some of the most important and widely used classifications, categories and other groupings relevant to the field of environment statistics

1. Land cover and land use
2. Environmental activities
3. Marine water quality
4. Surface freshwater quality
5. Ambient air quality
6. Protected areas

Database on the occurrence and impact of disasters: EM-DAT of the Catholic University of Leuven (Belgium)

- At least one of the following criteria must be fulfilled for an event to be entered into the database (record large-scale disasters):

    - Ten (10) or more people reported dead
    - One hundred (100) or more people declared as affected
    - Declaration of state of emergency
    - Call for international assistance

Example of typology of disasters

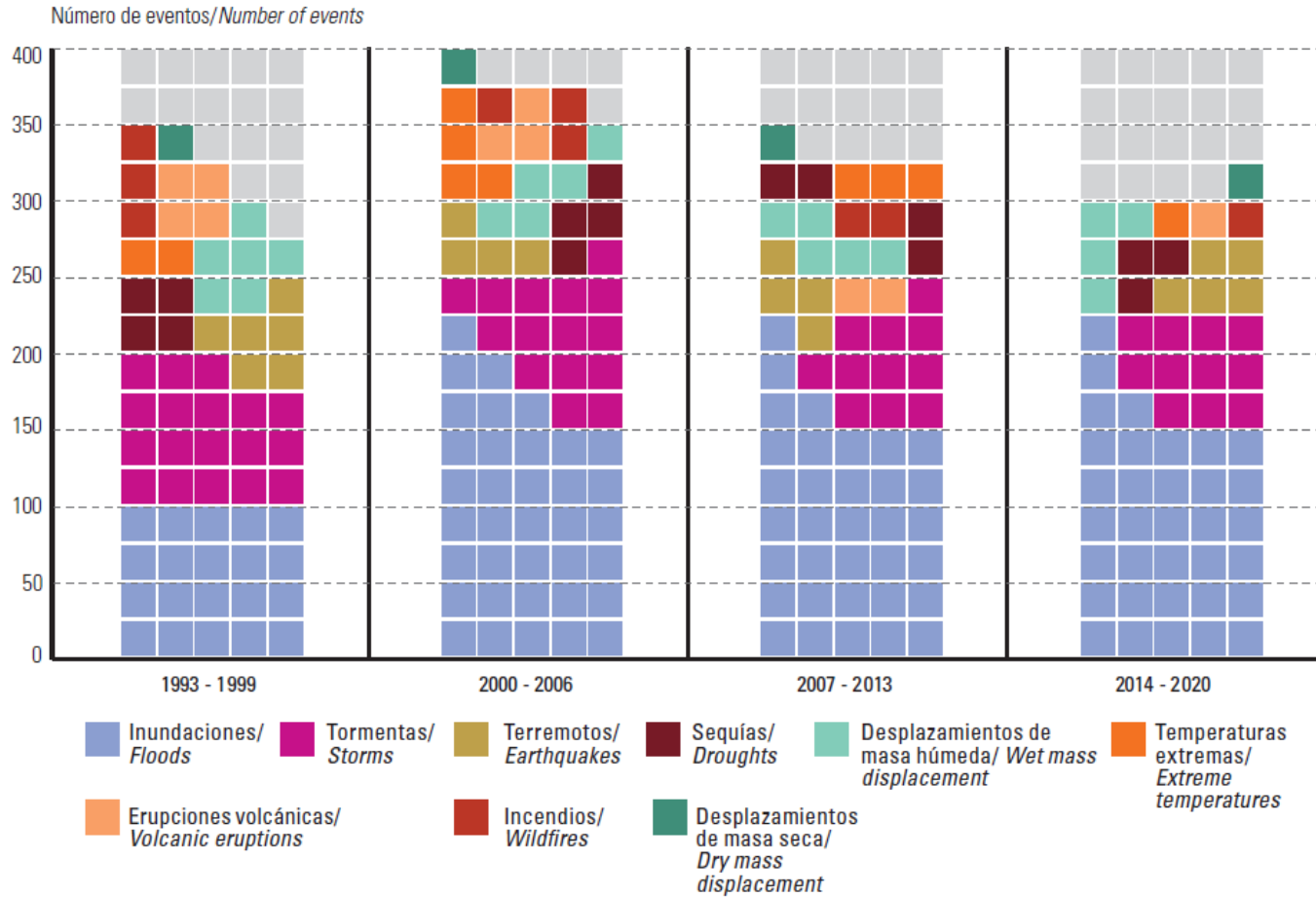| Disaster Group	Disaster Subgroup	Definition	Disaster Main Type
Naturally originated	Geophysical	A hazard originating from solid earth. This term is used interchangeably with the term geological hazard.	Earthquake
			Mass Movement (dry)
			Volcanic activity
	Meteorological	A hazard caused by short-lived, micro- to meso-scale extreme weather and atmospheric conditions that last from minutes to days.	Extreme Temperature
			Fog
			Storm
	Hydrological	A hazard caused by the occurrence, movement, and distribution of surface and subsurface freshwater and saltwater.	Flood
			Landslide
			Wave action
	Climatological	A hazard caused by long-lived, meso- to macro-scale atmospheric processes ranging from intra-seasonal to multi-decadal climate variability.	Drought
			Glacial Lake Outburst
			Wildfire
	Biological	A hazard caused by the exposure to living organisms and their toxic substances (e.g. venom, mold) or vector-borne diseases that they may carry. Examples are venomous wildlife and insects, poisonous plants, and mosquitoes carrying disease-causing agents such as parasites, bacteria, or viruses (e.g. malaria).	Epidemic
			Insect infestation
			Animal Accident
	Extraterrestrial	A hazard caused by asteroids, meteoroids, and comets as they pass near-earth, enter the Earth's atmosphere, and/or strike the Earth, and by changes in interplanetary conditions that effect the Earth's magnetosphere, ionosphere, and thermosphere.	Impact
			Space weather

Administrative records, remote sensing and monitoring system
to measure the occurrence of disaster

ALC: Number of disasters 1990-2020, by disaster type

Número de eventos/ *Number of events*

1993 - 1999 | 2000 - 2006 | 2007 - 2013 | 2014 - 2020

Legend:
- Inundaciones/ *Floods*
- Tormentas/ *Storms*
- Terremotos/ *Earthquakes*
- Sequías/ *Droughts*
- Desplazamientos de masa húmeda/ *Wet mass displacement*
- Temperaturas extremas/ *Extreme temperatures*
- Erupciones volcánicas/ *Volcanic eruptions*
- Incendios/ *Wildfires*
- Desplazamientos de masa seca/ *Dry mass displacement*

Cada cuadrado representa 5 eventos. En el caso de los desplazamientos de masa seca, cada cuadrado representa menos de 2 eventos /
Each square represents 5 events. For the dry mass displacement, each square represents less than 2 events.

[A] Centro de Investigaciones sobre la Epidemiología de los Desastres (CRED), Base de Datos Internacional sobre Desastres (EM-DAT) [en línea] http://www.emdat.be/.

[A] *Centre for Research on the Epidemiology of Disasters (CRED), International Disaster Database (EM-DAT) [online] http://www.emdat.be.*

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Thank you for your attention!

https://www.cepal.org/en/topics/environmental-statistics