Final regional workshop of the project
2023Q "Caribbean SIDS relevant climate change and disasters indicators for evidence-based policies"

May 10-12, 2023
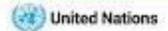
# Platform for resilience

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# Introduction



As we mark UN Day, let us renew our hope and conviction in what humanity can achieve when we work as one, in global solidarity. "

ANTÓNIO GUTERRES

United Nations Secretary-General

United Nations Day
24 October 2022

United Nations

# Definition

The resilience platform is an application developed for institutions and civil society, that may provide, consult or download geographic and statistical information, which serves as a basis for analysis, tactics and strategies in disaster prevention and response.
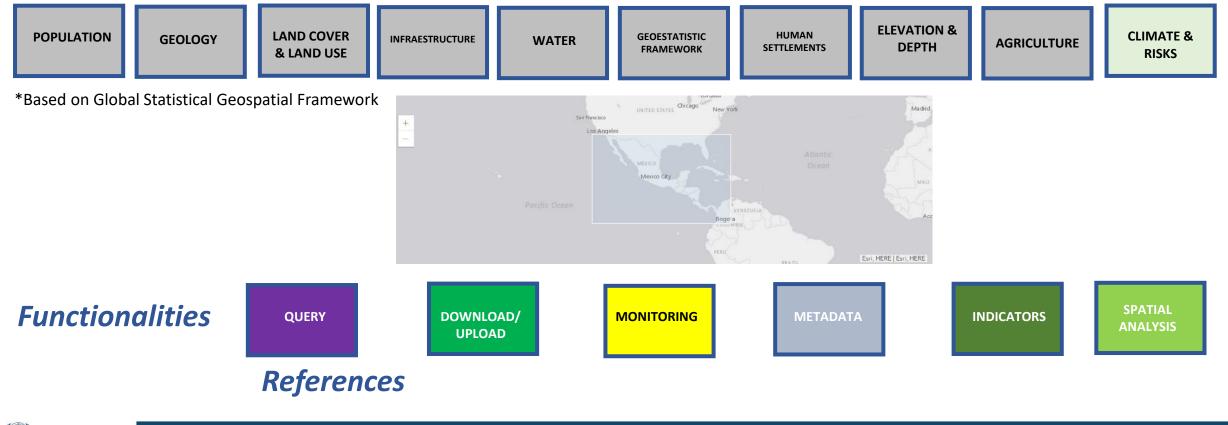
# Conceptual model

*Events*

- Climatological
- Geophysical
- Hydrological
- Meteorological
- Antropogenic

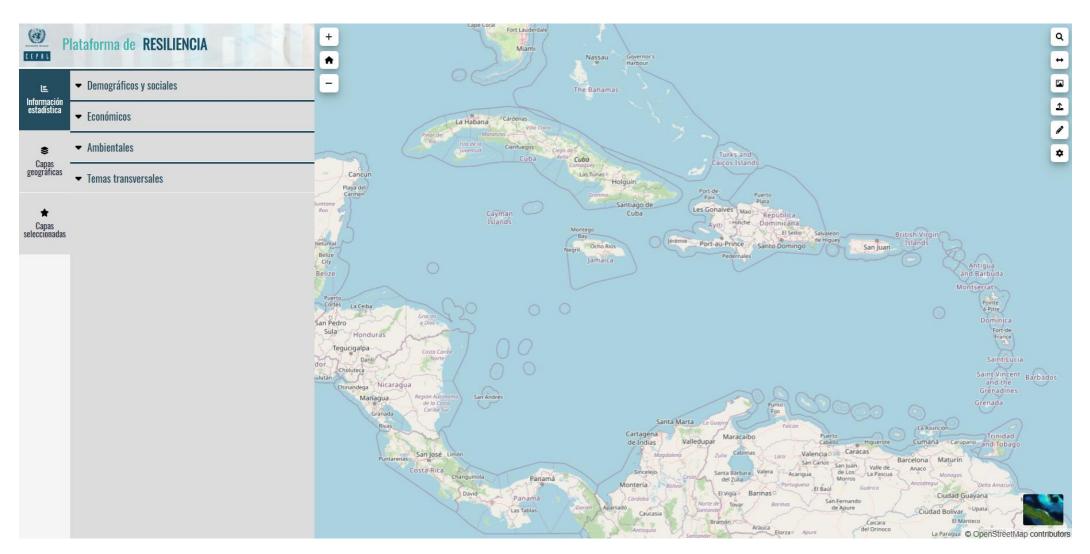- Biological
- Chemical
- Technological
- Socials

*Context **

| POPULATION | GEOLOGY | LAND COVER & LAND USE | INFRAESTRUCTURE | WATER | GEOESTATISTIC FRAMEWORK | HUMAN SETTLEMENTS | ELEVATION & DEPTH | AGRICULTURE | CLIMATE & RISKS |
|---|---|---|---|---|---|---|---|---|---|

*Based on Global Statistical Geospatial Framework



*Functionalities*

| QUERY | DOWNLOAD/ UPLOAD | MONITORING | METADATA | INDICATORS | SPATIAL ANALYSIS |
|---|---|---|---|---|---|

*References*

# Some relevant features

OPEN SOURCE

ADAPTABLE

INTEROPERABLE

MULTIPLE SOURCES

ACCESSIBLE

# Content 1/3

**Statistic information:**

# Content 2/3

**Geospatial layers:**



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# Content 3/3

**Selected layers:**



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# Tools 1/5



Some tools for Statistical and geographic layers:

Layer Information

Geodata Download

Compare

Download map

Upload data

Draw — Lines, Polygons, Points

Drawing tools may be used to:

1. Define an interest area by the user.
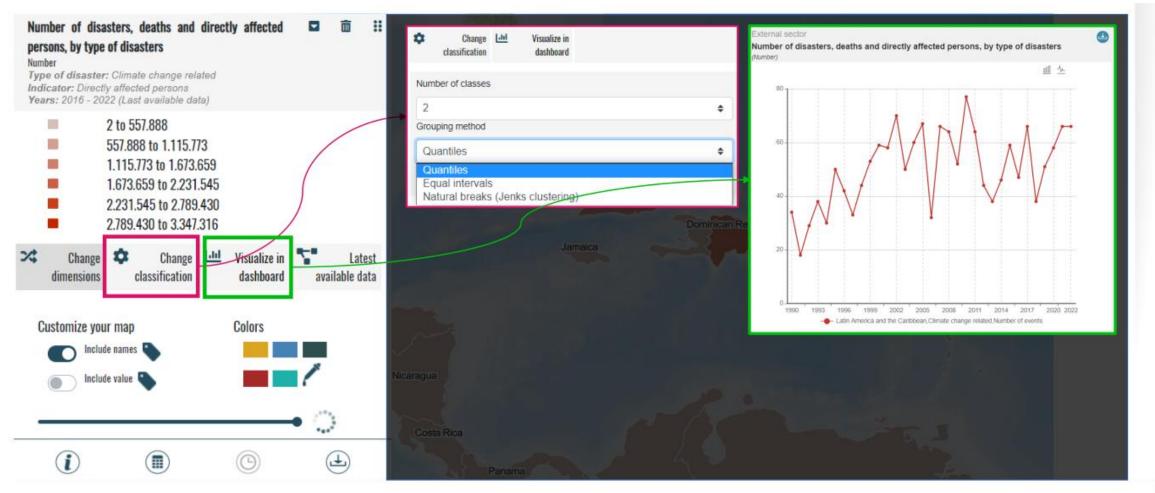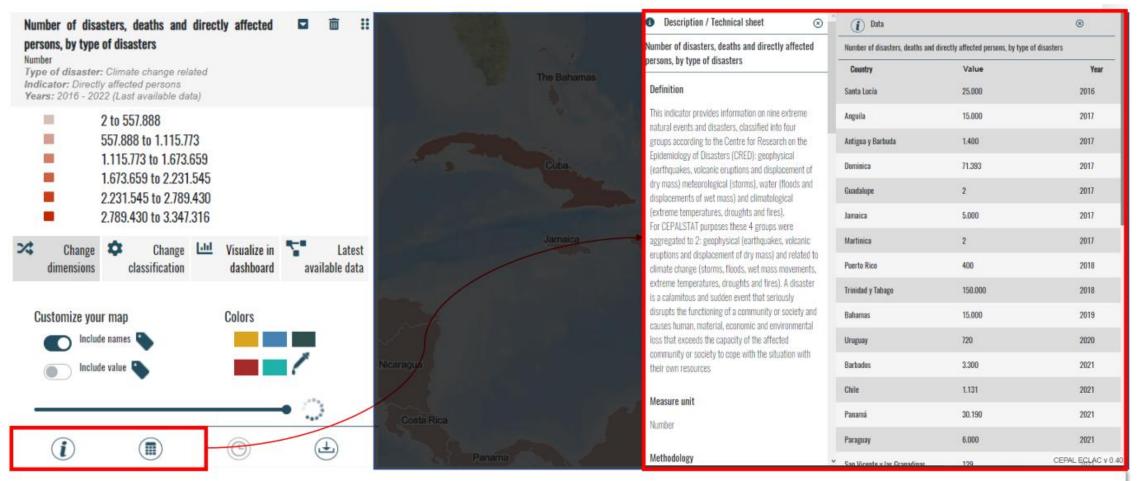2. Later, the user can request demographic and urban data for that specific defined area.

# Tools 2/5. Customization



- **Tools to re-classificate and customize the visualization of data.**

# Tools 3/5 . Metadata



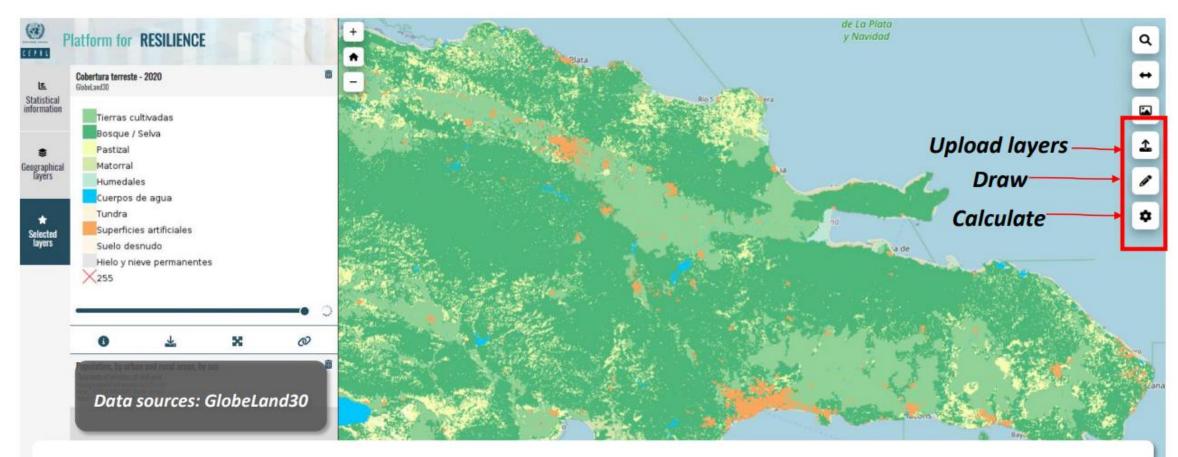- **Access to metadata and further information**

# **Tools** 4/5 . Comparison



- **Compare two or more layers in one display screen**

# Tools 5/5 . Downloading



- **Download a map image in different formats for easy sharing.**

# Geospatial calculations 1/3



Data sources: GlobeLand30

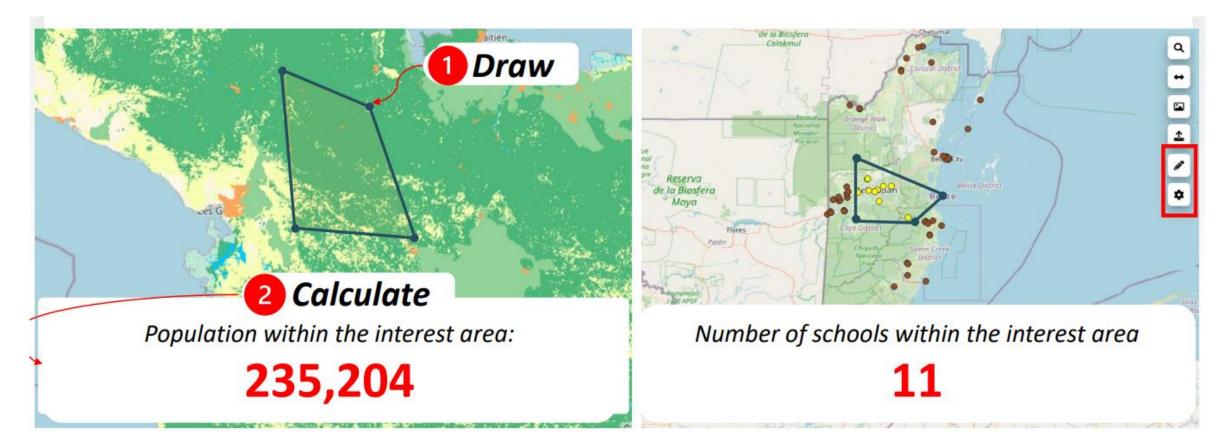- **Calculate demographical statistics with geospatial layers**

# Geospatial calculations 2/3 . Demographic and infrastructure analysis



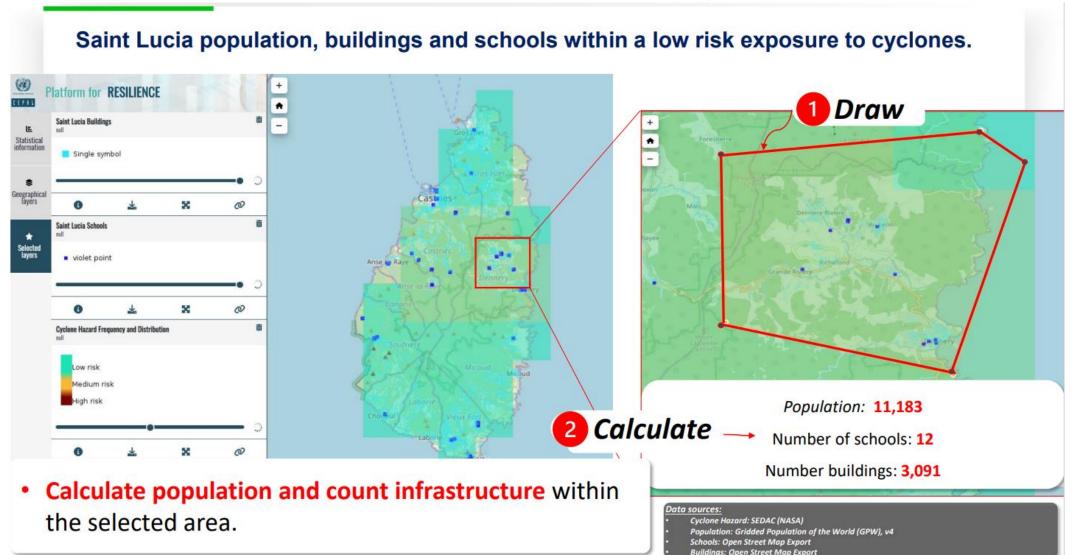**Data sources:**
- Land cover: GlobeLand30
- Population: Gridded Population of the World (GPW), v4
- Schools: Open Street Map export

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# **Geospatial calculations** 3/3 . Population estimation



Saint Lucia population, buildings and schools within a low risk exposure to cyclones.

**① Draw**

**② Calculate** → Population: **11,183**
Number of schools: **12**
Number buildings: **3,091**

- **Calculate population and count infrastructure** within the selected area.

*Data sources:*
- *Cyclone Hazard: SEDAC (NASA)*
- *Population: Gridded Population of the World (GPW), v4*
- *Schools: Open Street Map Export*
- *Buildings: Open Street Map Export*

# Lessons to learn

- Identification of gaps in geospatial data

- Linking the national geospatial initiatives (SDI´s)

- Collaborative agreements with national/international stakeholders

- Capacity building in order to add value to geospatial and statistical information

- Improving data and systems interoperability by adopting geospatial standards

https://geo.cepal.org/geo-resiliencia/?lang=en

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