Session 2: Assessing and mapping risk exposure, vulnerability, and coping capacity

Session Organizers: ECLAC, ECA, UNSD, ESCAP
Session Chair: Georgina Alcantar (ECLAC)
In the Information Age, we have data on phenomena and their location in time. Now, we are looking for information about location-based distributions, patterns, trends, and behaviors in our data, and our traditional approaches are not sufficient to cope with it.

We have data science tools at hand such as:

- machine learning
- geospatial analysis
- pattern recognition
- neural networks
- geospatial statistics and data cube
- etcetera
• Better decision-making requires more integrated location-based information about connection and causality of site, data, time.

• These relationships are to produce, manage and disseminate disasters-related statistic.

• However, it demands the use of non-official data sources such as earth observations, remote sensing, and citizen science, for example.

• Nonetheless, the expert eye at national level is always need it for validate and complement.
The session will focus on:

- **How to use emerging trends and new technologies** for gathering, analysing, and visualizing disaster-related data to assess risk exposure, vulnerability, and coping capacity, thereby improving disaster planning and response efforts.

- **Identify and measure challenges** and capacity building requirements
The session will discuss the following 3 key questions:

- How can technology be leveraged to **improve data collection** and reporting on the impacts of disasters?

- What are the **challenges of integrating disaster-related statistics** with these technologies in decision-making?

- Do you identify other **institutions collaborating** to improve disaster-related statistics in your country?
Our Panelist

- **Ms. Maria Ximena**, Focal point for disasters of the Geostatistics Direction of the Colombian National Administrative Department of Statistics.

- **Ms. Jesarela López**, Director of Technical Coordination of the National Institute of Statistics and Geography of Mexico

- **Mr. Miguel Montero**, Territorial Analyst of the Ministry of Economy, Planning and Development of the Dominican Republic

- **Mr. Eric Loubier**, General Director of the Center for Mapping and Earth Observation at the Natural Resources Center of Canada