

### Caribbean Regional Technical Workshop on CCRIF Models

Session: CCRIF models: 2023

With financial support from the European Union in the framework of the Caribbean Regional Resilience Building Facility, managed by the Global Facility for Disaster Reduction and Recovery (GFDRR)

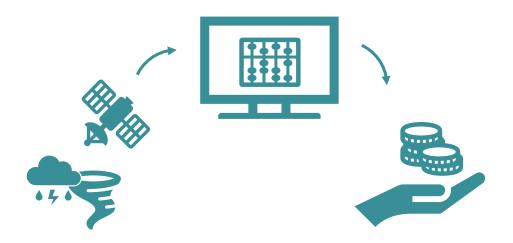
#### CARIBBEAN REGIONAL RESILIENCE BUILDING FACILITY



# CCRIF's models

#### Real time modeling for natural disasters

- CCRIF's models are run in real time, using open data produced by internationally recognized agencies
- ✓ With real time modelling, CCRIF can **monitor** the evolution of any potentially damaging event while it unfolds using **up-to-date** meteorological and remotely sensed data
- Real time modelling enables CCRIF to quickly and accurately assess the impact of an event and trigger **automated payouts**, reducing the time it takes to provide assistance to country members



### CCRIF's models: 2023

#### XSR 3.0

- ✓ Sophisticated model designed to support parametric insurance against infrequent and catastrophic extreme rainfall events
- ✓ The model adopts an *ensemble* approach that incorporates multiple estimates in order to **reduce uncertainty**
- ✓ The model uses a combination of meteorological and satellite-based estimates to improve reliability

**UPDATE 2023**: drawing on past experience and meeting CCRIF's partners' requests:

- ✓ New and improved rainfall datasets and models
- ✓ Additional trigger for localised events that have a disproportionate impact in small areas relative to the rest of the country
- ✓ Additional trigger for anomalously wet seasons



## CCRIF's models: 2023

#### **SPHERA Tropical Cylone**

- Modern, state-of-the-art model designed to support parametric insurance against damage caused by wind and storm surge induced by tropical cyclones
- ✓ It uses a probabilistic approach to generate a catalogue of possible storms from the analysis of the historical tracks in order to provide a robust estimate of TC risk in a given area

**UPDATE 2023**: drawing on past experience and meeting CCRIF's partners' requests:

- ✓ New stochastic catalogue: the assessment of the risk is more accurate and reliable
- ✓ Additional trigger for localised events that hit with very high intensity a small part of a country



### CCRIF's models: 2023

#### **SPHERA Earthquake**

- Modern, state-of-the-art model designed to support parametric insurance against damage caused by earthquakes
- ✓ It performs a probabilistic seismic hazard analysis to generate a stochastic event set that is used to produce a **fully probabilistic estimation** of the losses induced by them on the exposed assets of the different countries

**UPDATE 2023**: drawing on past experience and meeting CCRIF's partners' requests:

✓ New representation of seismic hazard around Jamaica and Cayman Islands from state-of-the-art assessments



## CCRIF's models

