



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



GFDRR
Global Facility for Disaster Reduction and Recovery



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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

