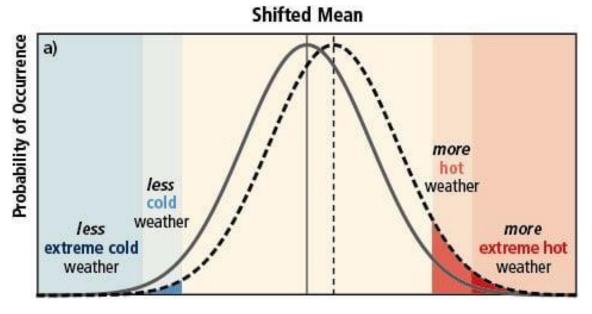


# **Climate Change**

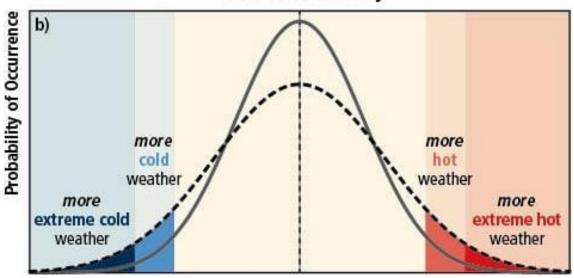
Climate change has different impacts on business & livelihoods based on geography & industry.

But all are impacted, to some extent.

# **Climate Change Essentials**

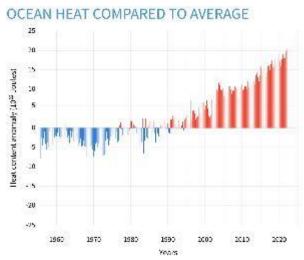


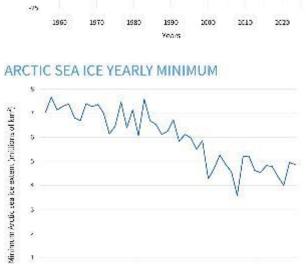
## Increased Variability



## **Global Trends**

## **NOAA Data (Climate.gov)**





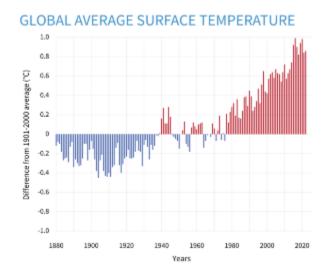
2000

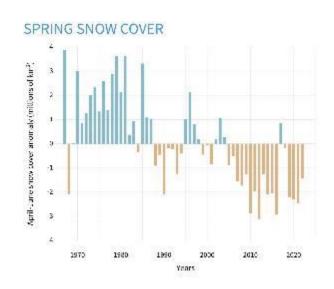
Years

2010

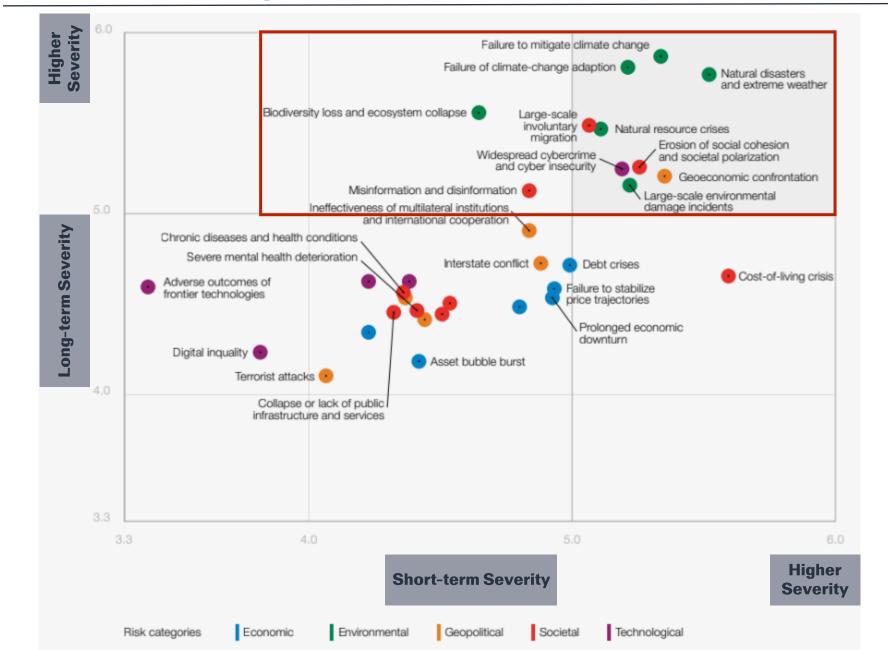
2020

1990





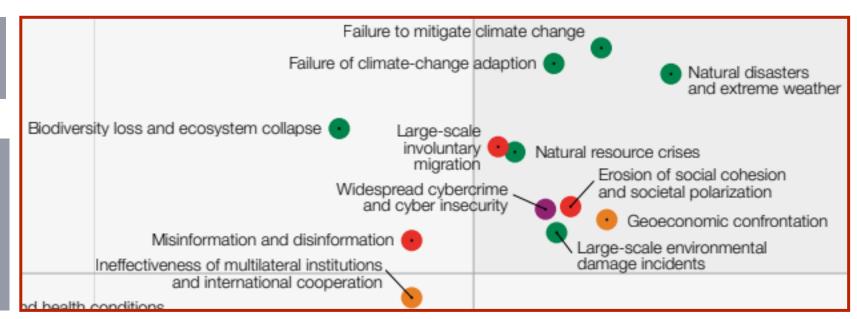
## **The Global Risks Report 2023 - WEF**



# **The Global Risks Report 2023 - WEF**

Higher Severity

Long-term Severity



**Short-term Severity** 

Higher Severity

# **Global Shield against Climate Risks**

#### What

 Officially launched in November 2022 by the Vulnerable 20 Group of Finance Ministers (V20):

58 climate vulnerable economies (including Caribbean nations) and the Group of Seven (G7)

 Initiative for pre-arranged financial support designed to be quickly deployed in times of climate disasters

#### Why

- 98% of approx. 1.5 billion people in V20 countries do not have financial protection
- Since 2000, V20 countries lost a total of USD 525 billion to climate impacts
- This is particularly harsh for countries whose workforce is mainly employed by SMEs

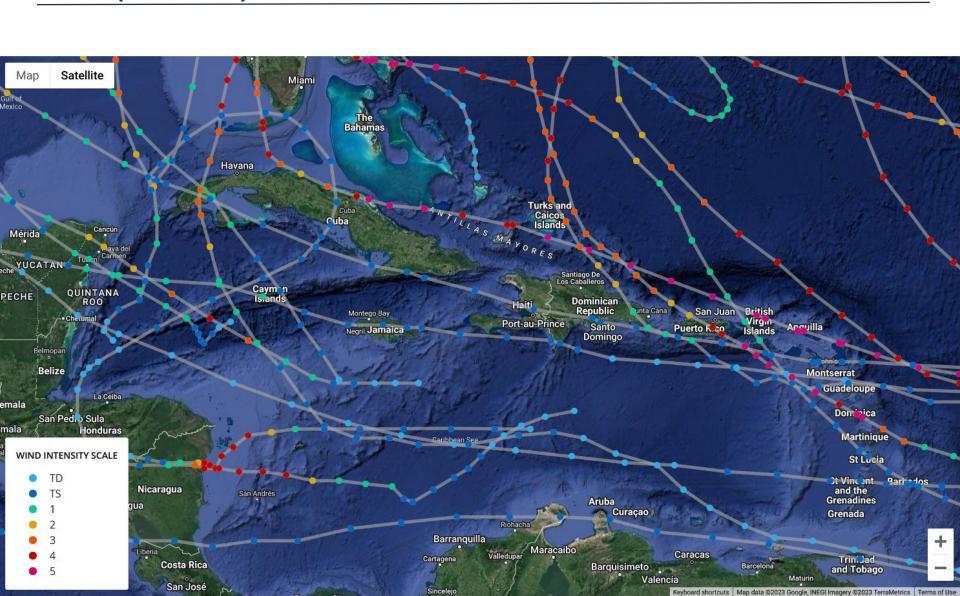


# **NatCat Risks in the Caribbean**



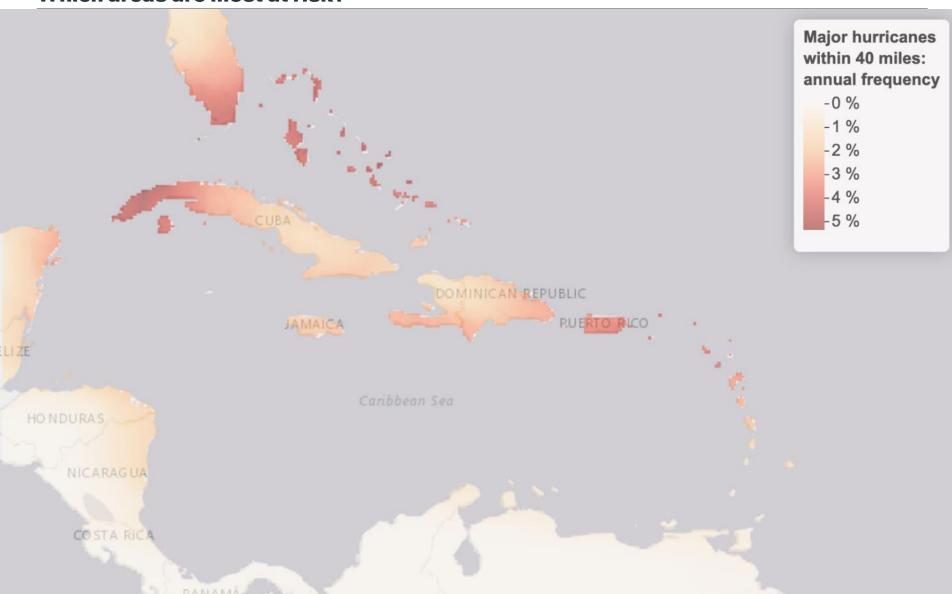
#### **Caribbean Hurricane Season**

> Cat 3 (2017-2022)



# **Hurricane Risk Map**

#### Which areas are most at risk?





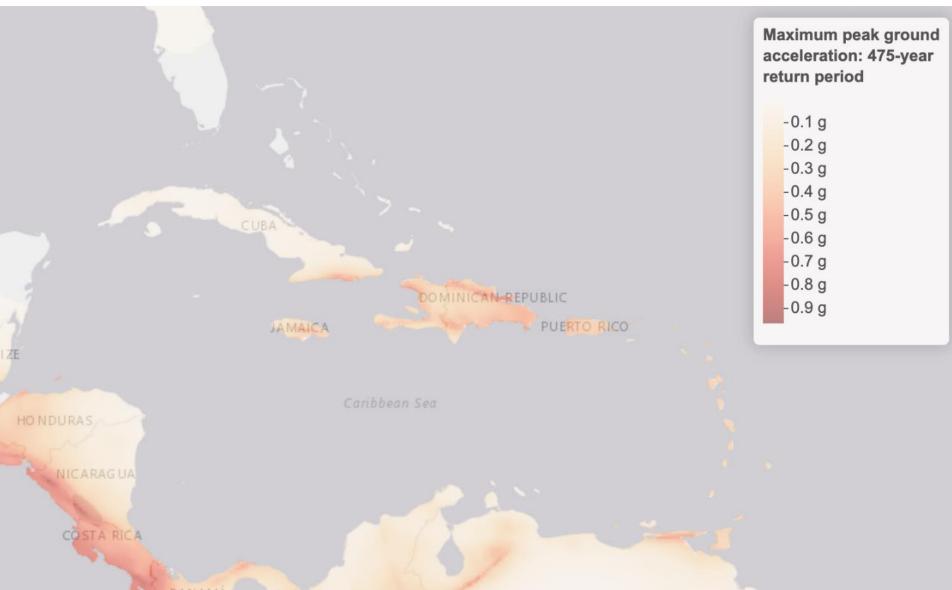
# **Caribbean Earthquakes**

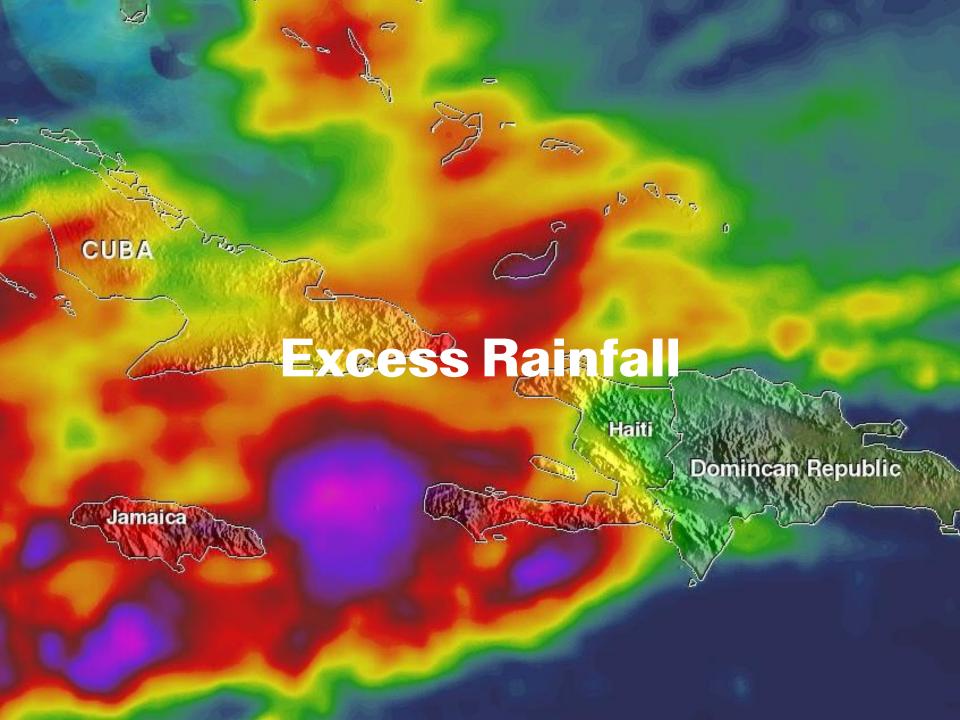
#### 342 Mw5+ earthquakes since 1980



# **Earthquake Risk Map**

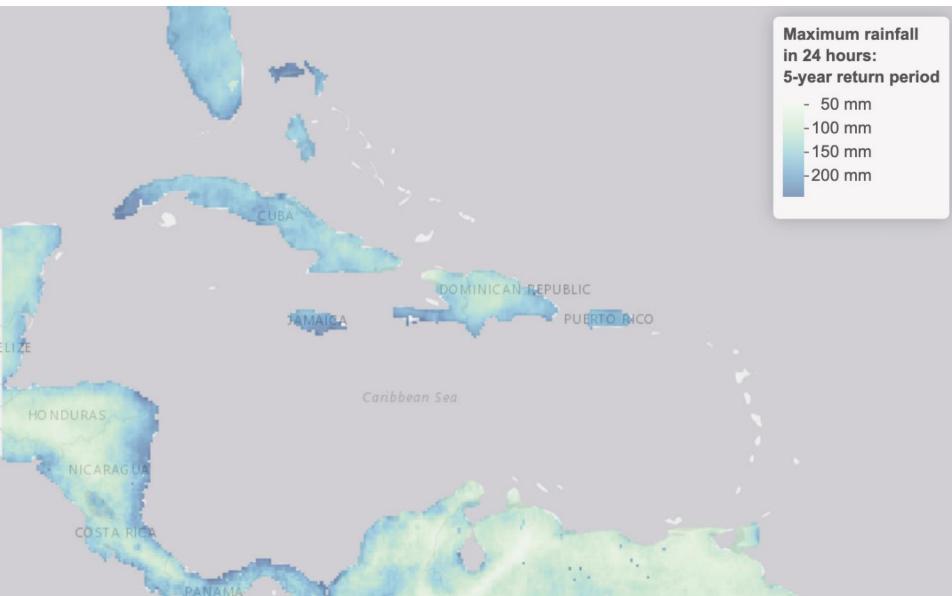
#### Which areas are most at risk?





# **Excess Rainfall Risk Map**

Which areas are most at risk?



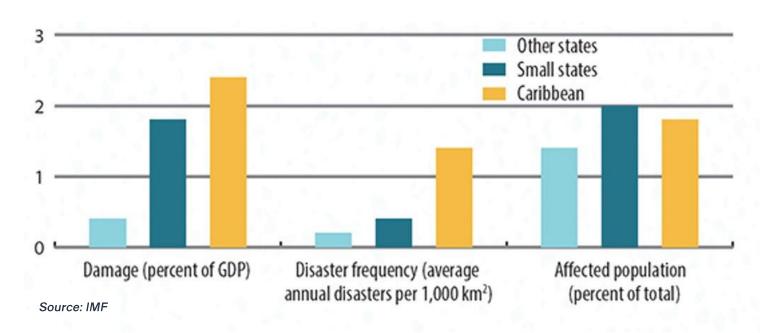
# **Climate Change**

In the Caribbean, increased variability in precipitation patterns lead to:

- ✓ prolonged periods of drought
- ✓ more frequent and intense extreme precipitation events, including hurricanes

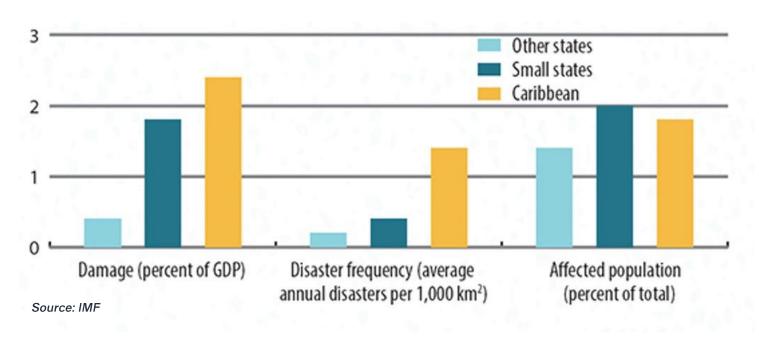
# **Economic Impact**

#### **High costs & long-term effects**



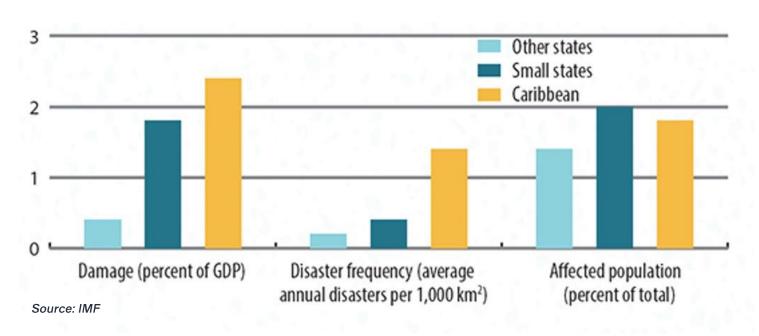
On average, countries in the Caribbean suffer yearly losses from storm damages equivalent to 17% of their GDP.\*

#### **High costs & long-term effects**



Natural disasters occur more frequently and cost more on average in the Caribbean than elsewhere—even in comparison to other small states.\*\*

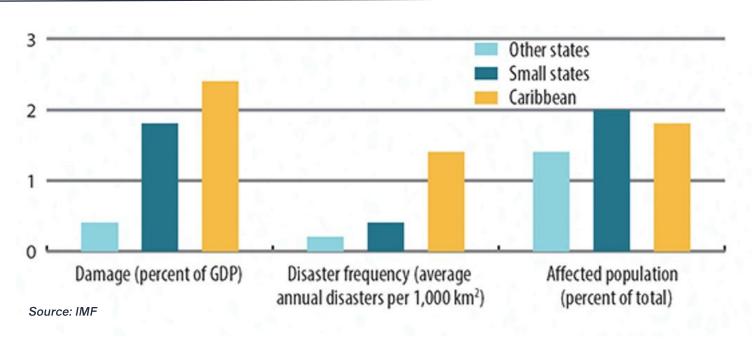
#### **High costs & long-term effects**



Repercussions from environmental damage have long-term consequences on economic growth, sometimes as long as 20 years later.\*\*\*

\*\*\* The causal effect of environmental catastrophe on long-run economic growth: evidence from 6,700 cyclones, NBER, July 2014, S. Hsiang, A. Jina

#### **High costs & long-term effects**



Hurricane Maria is estimated to have cost Dominica 225 percent of its GDP. Hurricane damage for Grenada in 2004 was 200 percent of GDP \*\*\*\*

# Micro, Small & Medium Enterprises (MSMEs)

#### **MSMEs in the Caribbean**

- According to the OECD, SMEs are a primary source of job creation in Latin America and the Caribbean, comprising 99.5 percent of firms in the region, and accounting for 60 percent of employment.\*
- According to the Caribbean Development Bank, MSMEs represent between 70-85% of Caribbean businesses and contribute between 60-70% of Gross Domestic Product.

= 50% of total employment

= 40% owned by women

Avocado Farm in the Dominican Republic © Adobe Stock / Todd

<sup>\*&</sup>quot;Supporting SME Development in Latin America and the Caribbean," Organisation for Economic Co-Operation and Development," 2020

# Agricultural Sector in the Caribbean

#### **Hurricane & Excess Rainfall**

#### **Agricultural losses:**

- ✓ Haiti, 2020, Tropical Storm Laura and Hurricane Eta: approx. \$22 million
- ✓ Dominica, 2017, Hurricanes Irma and Maria: approx. \$31 million
- ✓ Puerto Rico, 2017, Hurricane Maria: more than 80% of agricultural sector destroyed, losses approx. \$780 million



Sources: Caribbean Development Bank, UN Food and Agriculture Organization

## **Drought**

2019 (in some instances, overlapping 2018 or 2020)

#### **Agricultural losses:**

- ✓ Jamaica: approx. \$5 billion
- ✓ Grenada: more than \$10 million
- ✓ Haiti: approx. \$22 million, with 1.5 million people in need of food assistance
- ✓ Belize: approx. \$20 million, impacting approx. 50,000 farmers and the country's water supply



# **Tourism Industry**

# **Impact of Tourism on Caribbean GDP**

- The Tourism Industry accounts for approximately 15.5% of region's GDP.
- In some nations, percentage contributed to by the Tourism Industry represents up to 50% (Bermuda & Barbados)
- MSMEs operating in the tourism industry include a broad range of businesses types.



#### **Hurricane Maria 2017**

#### **Losses in the Tourism Sector:**

- ✓ Puerto Rico: estimated \$1.1 billion in damages, with tourist arrivals declining by 80% in October 2017 compared to previous year.
- ✓ Dominica: estimated \$1.3 billion in damages, with a decline in tourist arrivals of 57% in last quarter of 2017 compared to previous year.
- ✓ US Virgin Islands: estimated \$4.5 billion in damages.



# **Parametric Insurance Solutions**

# MSMEs/Business Owners: Losses, Needs, Policies

#### Losses

- Property loss
- Business Interruption (incl. NDBI)
- Extra expenses

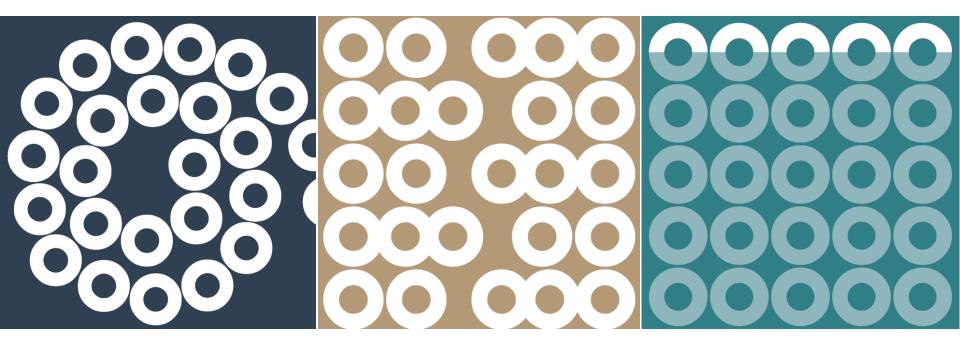
#### **Needs**

- Coverage options
- Seamless loss adjustment
- Rapid access to cash



# **Coverage Options**

**Triple Single Double** 





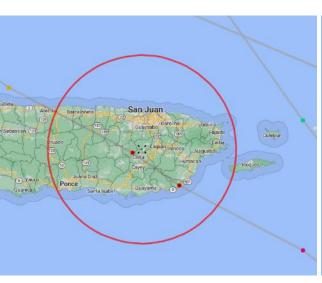


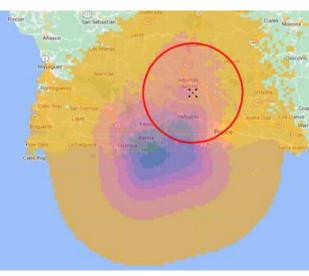


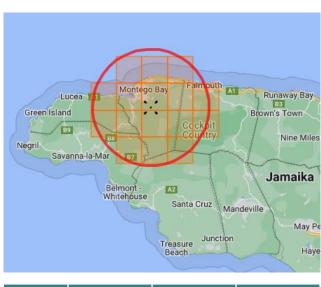
### HURRICANE

# **EARTHQUAKE**

## **FLOOD**







Hurricane Category	Indemnity in % of Policy Limit	Earthquake Category	Indemnity in % of Policy Limit	Layers	Return Period	Max. Daily Rainfall in mm.	Payout in % of Sum Insured
Cat. 1	-	0g ≤ PGA < 0.2g	0%	1	1 – 10 y	< 100	0%
Cat. 2	-	0.2g ≤ PGA < 0.3g	0%				
		0.3g ≤ PGA < 0.4g	5%	2	10 – 25 y	100–299	10%
Cat. 3	20%	0.4g ≤ <b>PGA</b> < 0.5g	15%	3	25 – 50 y	300–499	40%
Cat. 4	40%	0.5g ≤ PGA < 0.6g			50 – <i>7</i> 5 y	500–699	75%
		0.6g ≤ PGA < 0.7g	60%	4			
Cat. 5	100%	0.7g ≤ PGA		5	> 75 y	> 699	100%
			100%				

# Parametric advantages for high-risk environments

#### **Preparedness**

#### Parametric insurance coverage is...

- Accessible
- Customizable
- Reliable
- Quick
- Affordable

#### Resilience

# With heightened preparedness, resilience is within reach:

 Affected populations and businesses receive indemnity within days, which sustains their livelihoods throughout the recovery period and facilitates rebuilding.



# **OUR COMPANY**

# **Our Companies**

°CelsiusPro

**NatCatPro** 

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