

CCRIF SPC

The Caribbean Catastrophe Risk Insurance Facility



Importance of Financial Protection Strategies and Disaster Risk Financing to Debt and Fiscal Sustainability


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The Hazard Landscape in the Caribbean

- **Vulnerable to storms, tropical cyclones, flooding, landslides, earthquakes, tsunamis etc.**
- **Intrinsic economic, environmental and social vulnerability, limited natural resource base, significant competition between different kinds of land use, a high level of dependence on major economic sectors that rely on the natural environment, fragile ecosystems, limited institutional capacity and low levels of insurance coverage**
- **High concentration of people and infrastructure located in the coastal zones, further increasing vulnerabilities to hydro-meteorological events and climate change**
- **Multi-hazard environment**

Natural Hazards	Manmade Hazards	Biological/Health Related Hazards
<p>Meteorological and Hydrological:</p> <ul style="list-style-type: none"> • Tropical cyclones (tropical storms and hurricanes) • Rainfall, including severe rainfall events • Lightning • Extreme heat and increasing temperatures • Floods • Drought • Sea-level rise <p>Geohazards:</p> <ul style="list-style-type: none"> • Earthquakes • Mud Volcanoes • Tsunamis • Submarine volcanic eruptions <p>Environmental:</p> <ul style="list-style-type: none"> • Land degradation • Coastal erosion/Coastal inundation • Soil erosion • Landslides • Sahara dust • Sargassum • Coral reef degradation 	<p>Chemical:</p> <ul style="list-style-type: none"> • Oil spills • Transboundary movement of hazardous materials/ wastes <p>Technological</p> <ul style="list-style-type: none"> • Road, aviation, and nautical accidents • Industrial accidents • Infrastructure Failures • Fires (bush and forest fires) • Burning dumpsites and landfills <p>Societal:</p> <ul style="list-style-type: none"> • Fires • Terrorism • Cybercrimes/cyber security gaps • Societal unrest 	<p>Biological:</p> <ul style="list-style-type: none"> • Human disease outbreaks, epidemic pandemics • Animal (livestock) and plant (agricultural) epidemics • Other biological/physical hazards such as poisoning, eutrophication, air pollution

Natural disasters continue to cause significant impacts to the economies of the Caribbean...



Latin America and the Caribbean (LAC)
is the **second most disaster-prone region in the world**

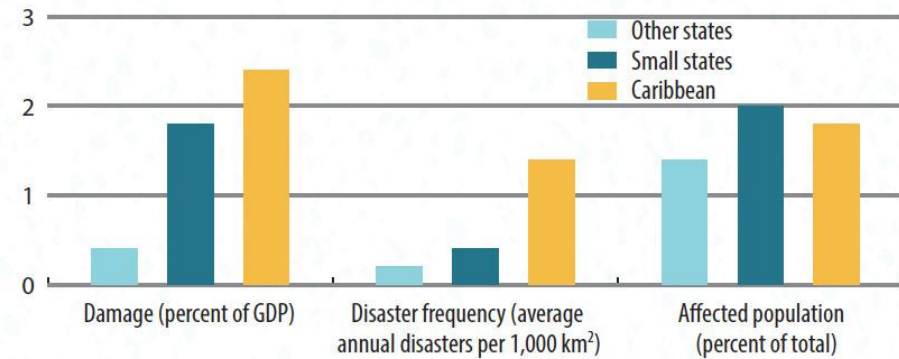
152 million
affected by **1,205 disasters** (2000-2019)*

resulting in:

- Higher fiscal deficits
- Trade deficits
- Negative impacts on industries such as tourism and agriculture
- Increases in poverty levels
- Negative impacts on economic growth prospects
- **Need for quick liquidity**

Highly exposed

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



Sources: EM-DAT; IMF. 2016. "Small States' Resilience to Natural Disasters and Climate Change—Role for the IMF"; IMF, *World Economic Outlook*; World Bank, *World Development Indicators*; and authors' calculations.

2004 **Ivan**



200%
of Grenada's
GDP

1989 **Hugo**



434%
of Montserrat's
GDP

2015 **Erika**



96%
of Dominica's
GDP

2017 **Maria**

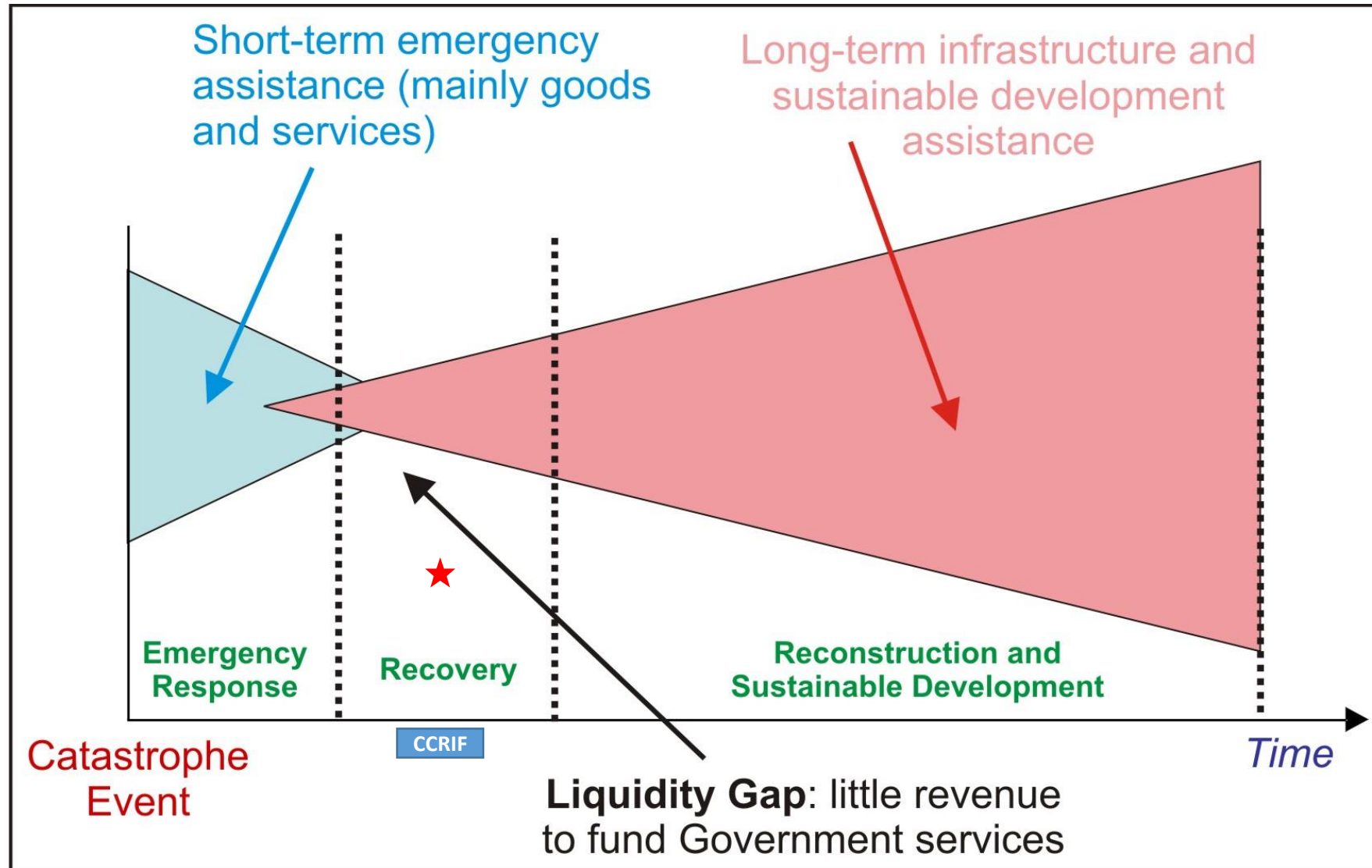


225%
of Dominica's
GDP

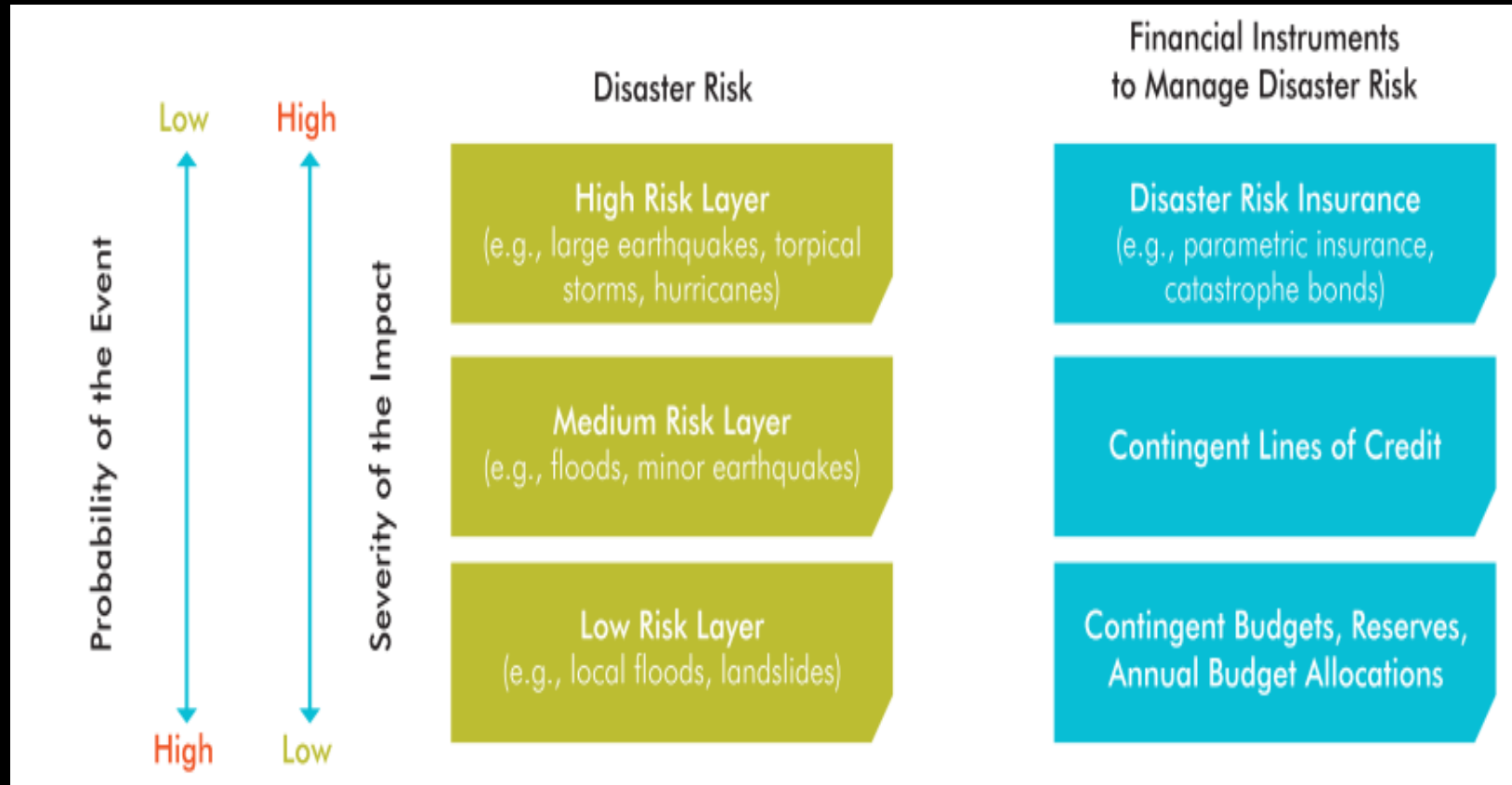
330
STORMS

- An average of **17 hurricanes per year and 23 Category 5 hurricanes** (2000-2019).
- The 2017 hurricane season is the **third worst on record** in terms of number of disasters and countries affected as well as the magnitude of damage.
- In 2019, Hurricane Dorian became the **strongest Atlantic hurricane** on record to directly impact a landmass.

After A Disaster: Sovereign Liquidity Gap



Disaster Risk Financing Layering Approach



Governments should build a financial protection strategy that combines a number of instruments that address different layers or types of risk. Such a strategy incorporates budget allocations and reserves, contingent credit, and risk transfer instruments.

A satellite image of a hurricane, likely Hurricane Ivan, over the Caribbean Sea. The hurricane is a large, circular storm system with a distinct eye and a dense, swirling cloud structure. The surrounding ocean is dark blue, and the landmasses of the Caribbean and parts of North and South America are visible in shades of green and brown.

CCRIF SPC - The Caribbean's Parametric Insurance Facility

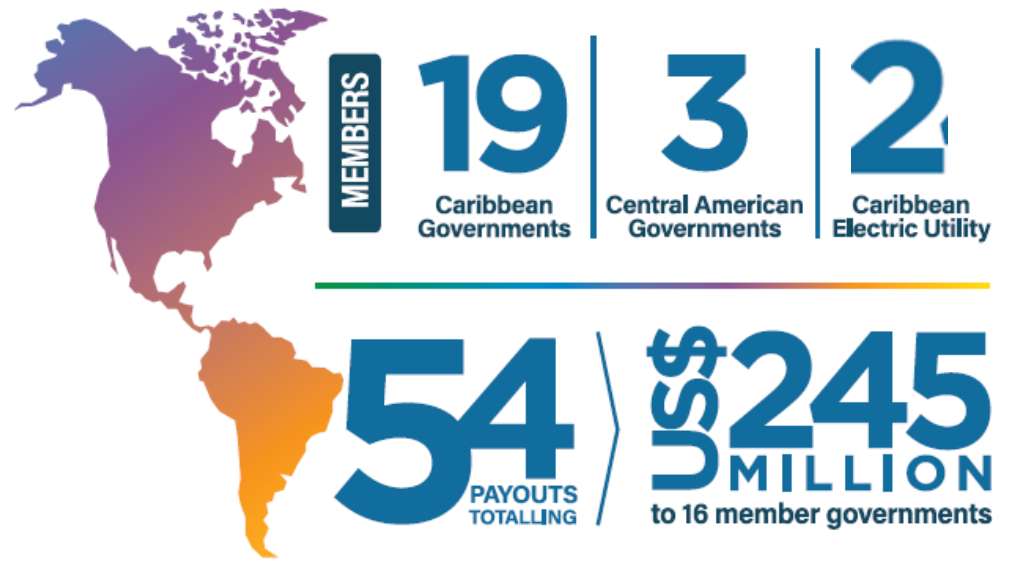
- Prompted by Hurricane Ivan and request for assistance by Caribbean governments made to the World Bank
- The world's first multi-country risk pool providing parametric insurance – established in 2007
- Originally designed to limit the financial impact of catastrophic hurricanes and earthquakes
- Provides short-term funding to support relief in the immediate aftermath of a natural disaster

CCRIF:

- Is the world's first and most successful multi-country, multi-peril risk pool based on parametric insurance
- Is a development insurance company – as the goods and services we provide are designed to enhance the overall developmental prospects of our members
- Offers products not readily available in traditional insurance markets
- Provides parametric insurance - a key component in a country's disaster risk financing strategy and is designed to pre-finance short-term liquidity, reduce budget volatility and allow countries respond to their most pressing needs post disaster
- Provides quick liquidity allowing governments to quickly support the most vulnerable in their population immediately after a natural disaster

CCRIF SPC FORMED 2007

The world's first multi-country risk pool based on parametric insurance



PRODUCTS

Parametric Catastrophe Insurance for:

Tropical Cyclones	Earthquakes	Excess Rainfall	Fisheries	Electric Utilities



**Earthquake
Policies**



**Tropical Cyclone
Policies**



**Excess Rainfall
Policies**



**Fisheries Policy -
COAST**



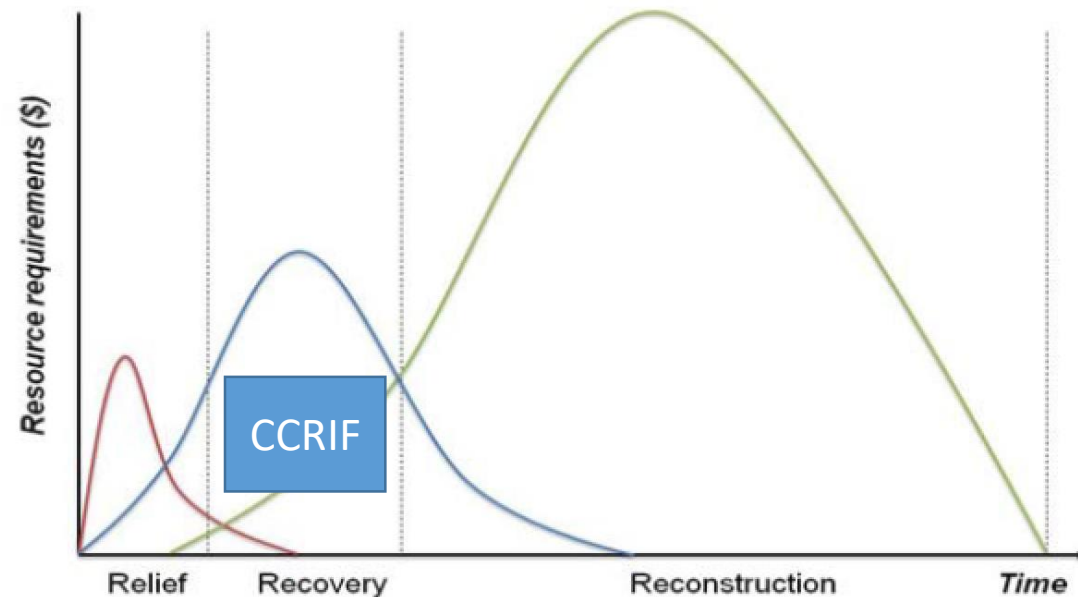
**Electric Utilities
Policy**

CCRIF Parametric Insurance Products

1. EQ - Based on losses due to ground shaking
2. TC - Based on losses due to wind and storm surge
3. XSR – Based on losses due to amount of rainfall
4. COAST – Based on losses in fisheries sector due to rain, waves, wind and storm surge
5. Electric Utilities – Based on losses for electric T & D lines due to wind

Main Phases of Post Disaster Funding Needs

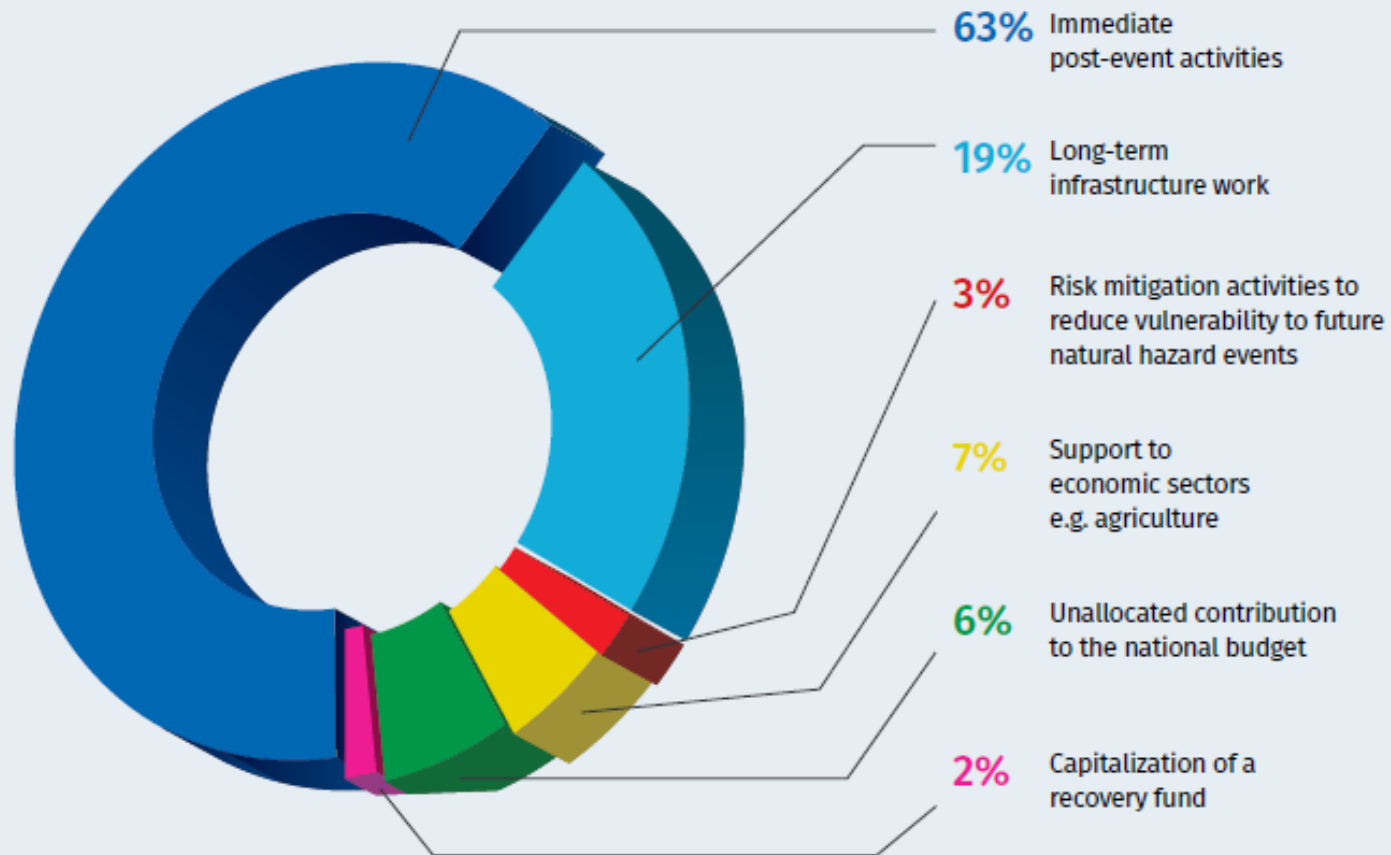
The design of an efficient financial protection strategy must consider this time dimension to ensure that funding requirements are matched with the capacity to disburse funds when required



CCRIF occupies that critical space in post disaster needs assessment between immediate relief (0 – 5 days after event) and long term reconstruction and recovery

USE OF CCRIF PAYOUTS

2007 - 2021



Since 2007, CCRIF SPC has made 54 payouts to 16 member governments totalling US\$ 244,789,789.

- Single Largest Payout: Haiti – US\$ 39,953,272 for August 14, 2021 earthquake
- Member receiving the largest number of payouts – Barbados – 6 in total
- Member receiving the largest value in payouts – Haiti – US\$78.3 million

How CCRIF Policies Work

Parametric insurance disburses funds based on the occurrence of a pre-defined level of hazard and impact

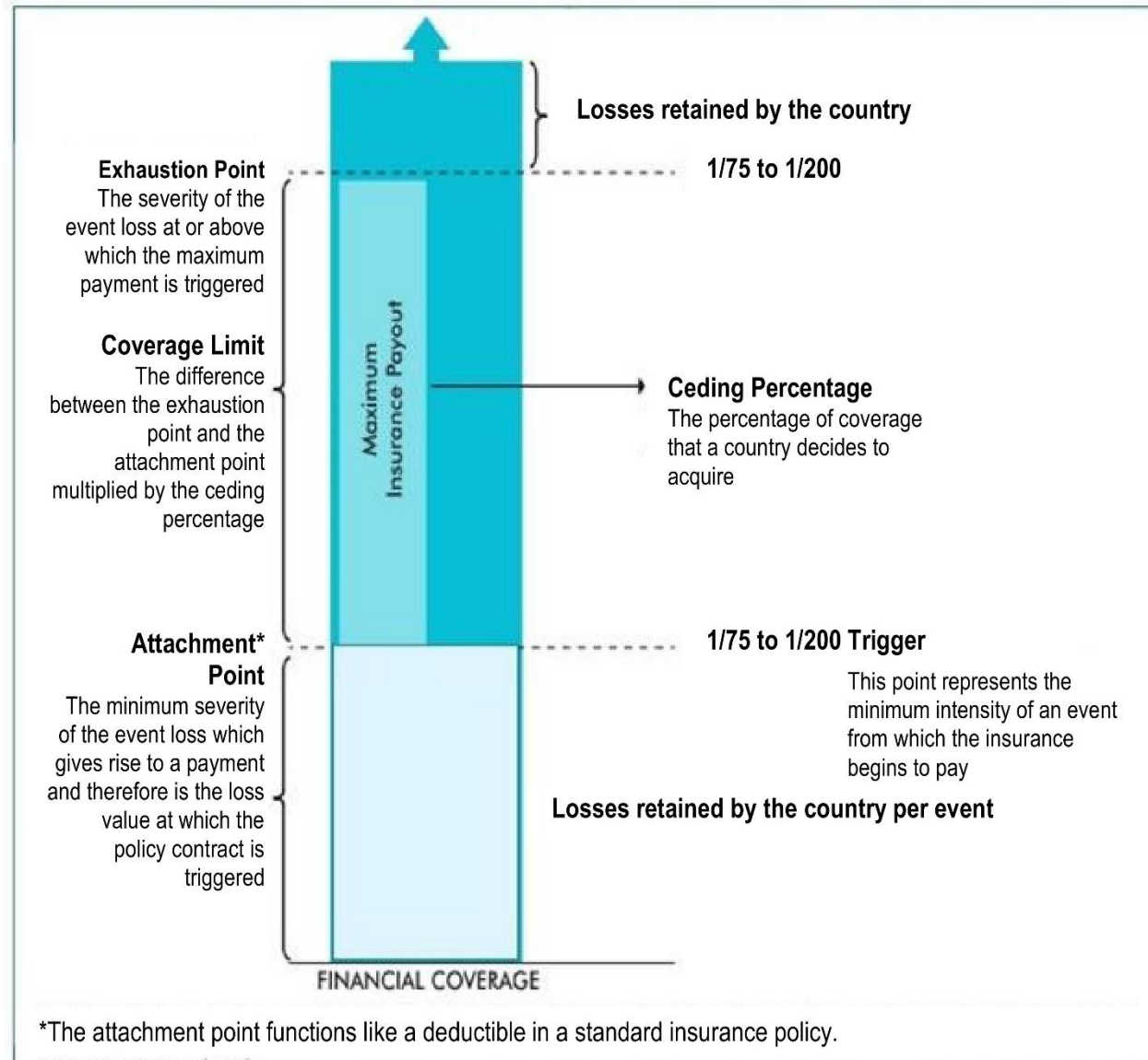
Policy triggered on the basis of exceeding a pre-established trigger event loss

Estimated based on wind speed and storm surge (tropical cyclones) or ground shaking (earthquakes) or volume of rainfall (excess rainfall)

Hazard levels applied to pre-defined government exposure to produce a loss estimate

Payout amounts increase with the level of modelled loss, up to a pre-defined coverage limit

CCRIF Policy Elements



CCRIF policy premiums depend on the selection by Governments of 3 elements:

- **Attachment Point**
- **Ceding Percentage**
- **Exhaustion Point**

These are informed by the country's risk profiles

**CCRIF
Products –
Current and
Future**

CCRIF Products	Perils											Add. Info
	GS	Wind	Rain	Flood	Drought	Heat Wave	Land-slide	Vol Er	Tsunami wave	Storm surge	Wave Height	
Earthquake	◆											
Tropical cyclone		◆								◆		
Excess Rainfall			◆									
Products under Development												
Drought					◆							
Run-Off				◆								
Eco Sectors Covered												
Electric Utilities		◆								◆		
Fisheries		◆	◆							◆	◆	
LPP (microins)		◆	◆									Adaptive Social Protection
Eco Sectors under Consideration												
Agriculture		◆	◆	◆	◆					◆		Including Livestock
Tourism	◆	◆	◆							◆		
Gov. Buildings and other Infra	◆	◆	◆	◆						◆		Schools, hospitals, offices, PS, houses
Housing Stock	◆	◆	◆	◆			◆			◆		



Insurance Products for Vulnerable Populations in the Caribbean – Linking Macro and Micro Insurance Mechanisms

Two main products available in the Caribbean supported and/or developed by CCRIF:

- **Microinsurance-type product developed for fishers under COAST Project with support from Governments**
- **Leading the Transition Phase of the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) Project (Livelihood Protection Policy - LPP)**

Climate Risk Insurance (Microinsurance) in the Caribbean





- A parametric insurance product providing quick payouts for the fisheries sector
- Supports the livelihoods of fishers and others in the fisheries industry
- Designed to support governments' efforts to rapidly put money into the hands of those impacted by extreme weather, providing them with **immediate** economic relief.
- Policy includes mechanism for disseminating payout to beneficiaries in the fisheries sector
- Promotes a culture of building back better to enhance coastal community resilience after an extreme weather event
- The insurance policy and payouts are based on full transparency and accountability



C|O|A|S|T

In force since July 1st, 2019 - In Grenada
and Saint Lucia

Additional countries to come on board in
2023

First of its kind in the world



In Closing
**CCRIF is
essentially
about...**

- providing quick liquidity
- allowing governments to quickly support the most vulnerable in their population immediately after a natural disaster
- reducing budget volatility
- not increasing the debt stock of countries – parametric insurance will not result in an increase in debt stock as it is not a form of disaster relief as are credit facilities
- offering diverse products for both a range of perils and economic sectors and industries
- offering products and services not readily available in traditional insurance markets



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