CCRIF SPC

The Caribbean Catastrophe Risk Insurance Facility

The role of CCRIF SPC

May 9, 2019

The Genesis of CCRIF

1. Prompted by Hurricane Ivan in 2004 and request for assistance by Caribbean governments made to the World Bank
2. The world's first multi-country risk pool providing parametric insurance – formed in 2007
3. Originally designed to limit the financial impact of catastrophic hurricanes and earthquakes
4. Provides short-term funding to support relief in the immediate aftermath of a natural disaster

What is CCRIF?

CCRIF is the world's first multi-country multi-peril risk pool based on parametric insurance and provides parametric catastrophe insurance for Caribbean and Central American governments.

CCRIF operates as a not-for-profit organization and currently provides its products and services to 19 Caribbean governments and 2 Central American governments. New entrants in 2018 were the British Virgin Islands, Montserrat, Sint Maarten and in 2019 Panama joined.

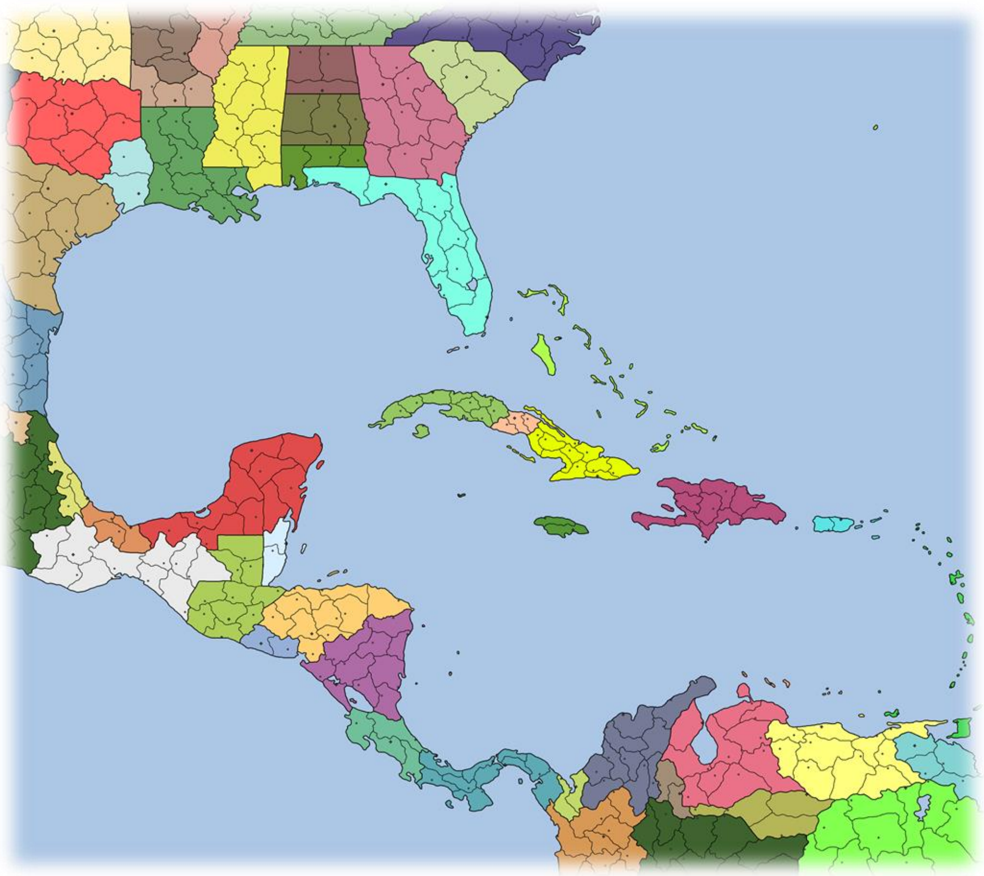
Unlike indemnity insurance, CCRIF's parametric insurance products are insurance contracts that make payments based on the intensity of an event and the amount of loss calculated in a pre-agreed model caused by these events.

CCRIF represents a cost-effective way to pre-finance short-term liquidity to begin recovery efforts for an individual government after a catastrophic event, thereby filling the gap between immediate response aid and long-term redevelopment.

CCRIF Members

19 Caribbean members:

Anguilla
Antigua & Barbuda
Bahamas
Barbados
Belize
Bermuda
British Virgin Islands
Cayman Islands
Dominica
Grenada
Haiti
Jamaica
Montserrat
St. Kitts & Nevis
Saint Lucia
St. Vincent & the Grenadines
St. Maarten
Trinidad & Tobago
Turks & Caicos



2 Central American members:

Nicaragua
Panama

Our Core Values

At CCRIF we are committed to:

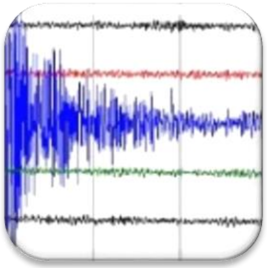
- Filling a gap in available insurance offerings for natural catastrophes
- Ensuring speedy payouts (before 14 days)
- Charging the lowest possible premiums consistent with long-term sustainability
- Being transparent and accountable
- Being innovative and providing new products to meet the needs of our members
- Facilitating capacity building in disaster risk management and ex-ante financing

CCRIF Products

CCRIF Insurance Products

Tropical Cyclone

(since 2007)



Earthquake

(since 2007)

Excess Rainfall

(since 2013)

… coming soon

- ✓ Drought
- ✓ Run-Off/Flood
- ✓ Fisheries and Aquaculture Sectors
- ✓ Agriculture
- ✓ Public Utilities

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 makes payouts within 14 days after an event.

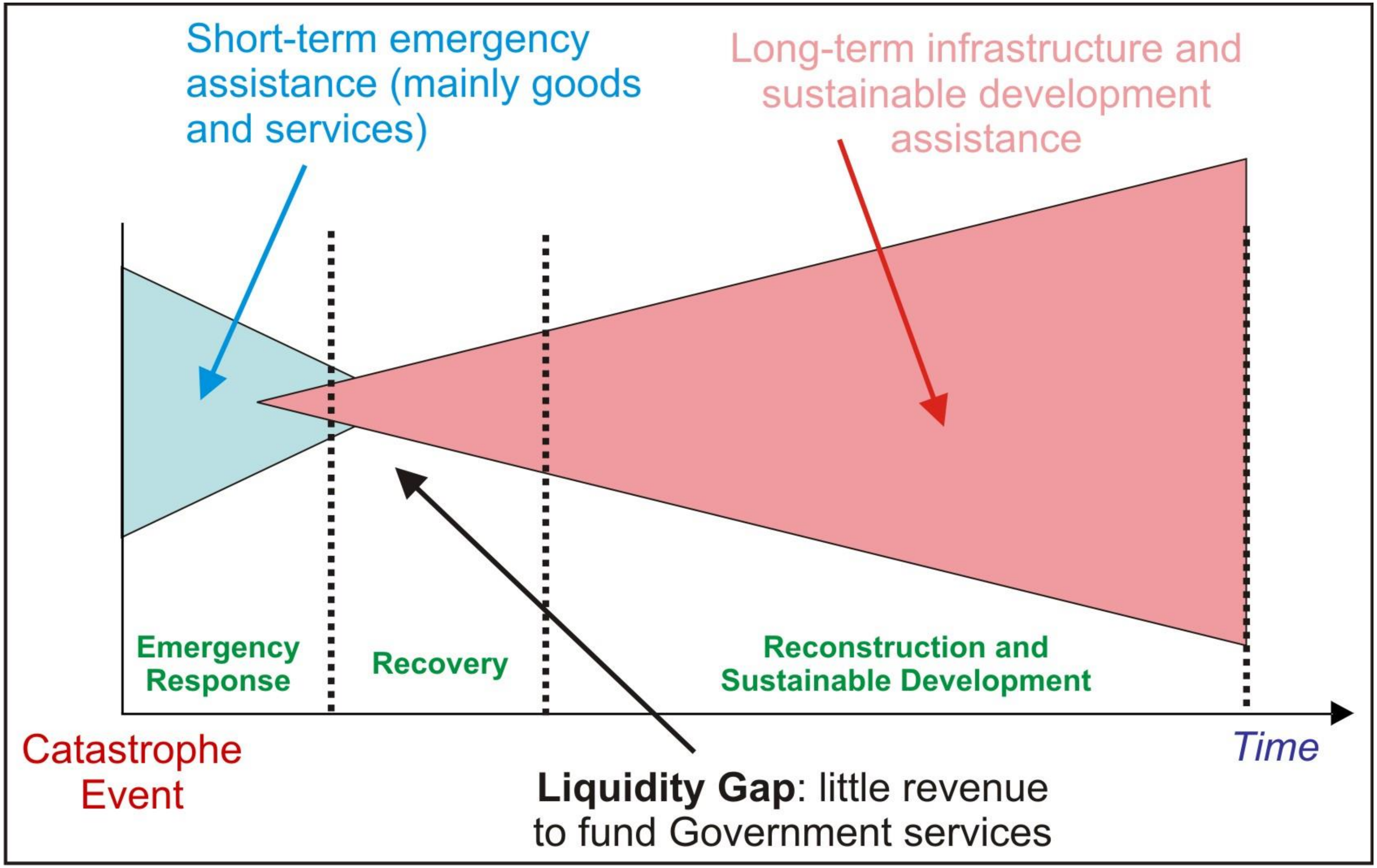
A Note on Insurance Penetration in the Caribbean and Central America

In developed countries, insurance and capital markets are widely used to hedge the immediate adverse impacts of natural disasters. According to MunichRe, more than 40% of the direct losses from natural disasters are insured in developed countries.

Less than 10% of losses are covered by insurance in middle-income countries and less than 5% are covered in low-income countries.

Climate risk insurance for individuals is mostly absent in the region, except for very few agricultural insurance schemes.

Sovereign Liquidity Gap



Linking Fiscal Policies with DRM

- Natural disasters and financial crises are typically exogenous events that represent covariate shocks across a country and households
- Economic damages from natural hazards can jeopardize the health of national economies at a level comparable to or greater than that of financial crises
- Natural disasters also destroy human and physical capital stocks of countries – something that financial crises do not

Disaster Risk Management Strategies

Disaster risk management strategies include risk reduction by increasing investment in mitigation and prevention – commonly referred to as disaster preparedness – but also include a series of alternative instruments for loss financing – commonly referred to as risk financing instruments

Risk Financing Instruments

Ex-Ante

Ex-ante risk financing instruments require proactive advance planning and really involves investing in national catastrophe risk management prior to a natural disaster occurring.

Ex-Post

Ex-post instruments are sources that do not require advance planning.
These instruments include budget reallocation, domestic credit, external credit, tax increase, and donor assistance.

Ex-post strategies provide emergency response, rescue and emergency relief services in the aftermath of natural disasters and really is an example of a pure public good.

Examples of Ex-Ante Financing Instruments

Examples of Ex-Ante Instruments

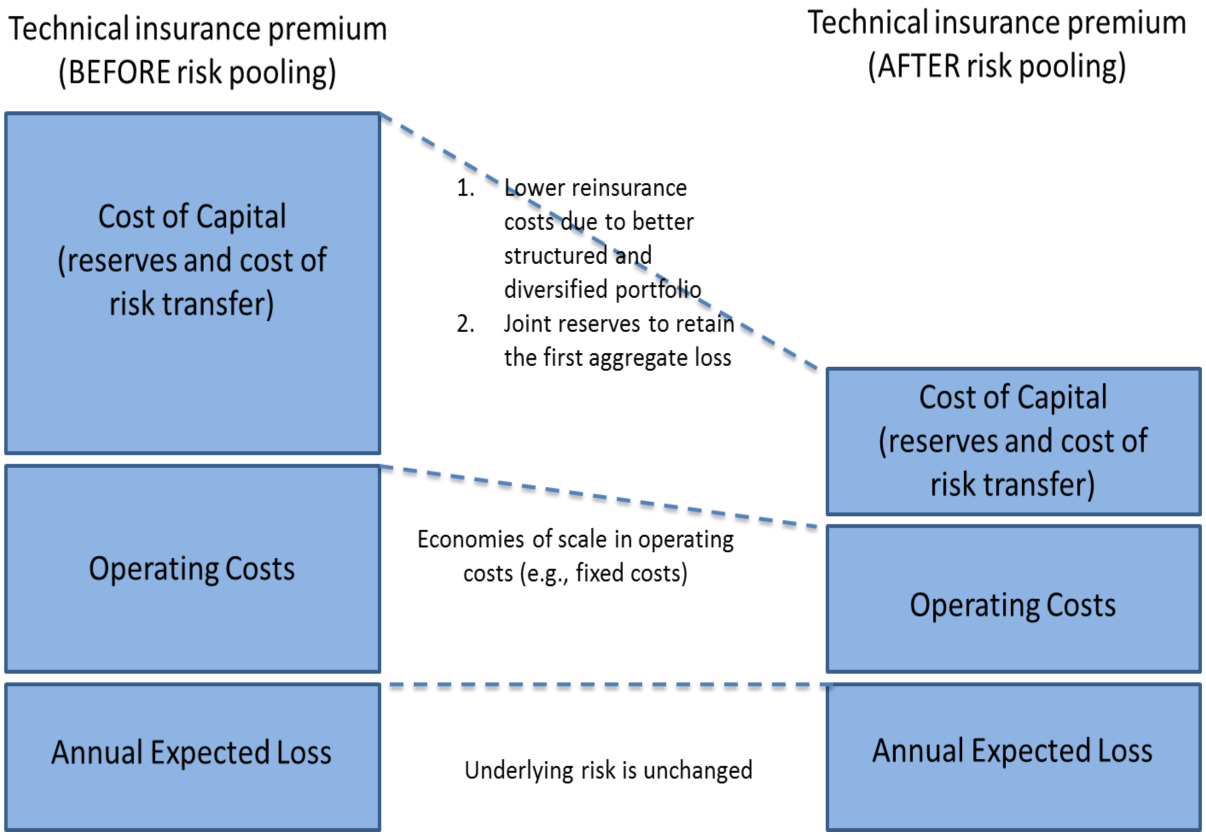
- Dedicated reserve fund
- Contingent credit facility
- Traditional Insurance
- Catastrophe bond, other catastrophe-linked instruments / alternative risk transfer instrument

Why Caribbean and Central American Governments are Pursuing Catastrophe Risk Insurance?

3 Clear Reasons	
	Governments are typically responsible for large portfolios of public infrastructure assets subject to risk
	To guarantee sufficient capital for emergency relief and assistance to affected households, businesses and communities. If governments lack the necessary infusion of post-disaster capital to rebuild critical infrastructure and sectors (e.g, tourism agriculture etc.), restore homes and provide humanitarian assistance, indirect costs can greatly surpass the direct losses of a disaster
	Developing countries have a higher propensity for post-disaster resource deficits. Governments of developing countries typically must divert from their budgets or from already disbursed development loans to finance post-disaster expenses, also relying on new loans and donations from the international community

Benefits of CCRIF Model

- Pooling of risk across a wide geographical area provides:
    - excellent diversification
    - pooling into a single reinsurance transaction improves access to and pricing from global markets
    - parametric policies allow total objectivity/ transparency and rapid payouts (14 days after an event)
- Pricing based on technical risk avoids cross- subsidization

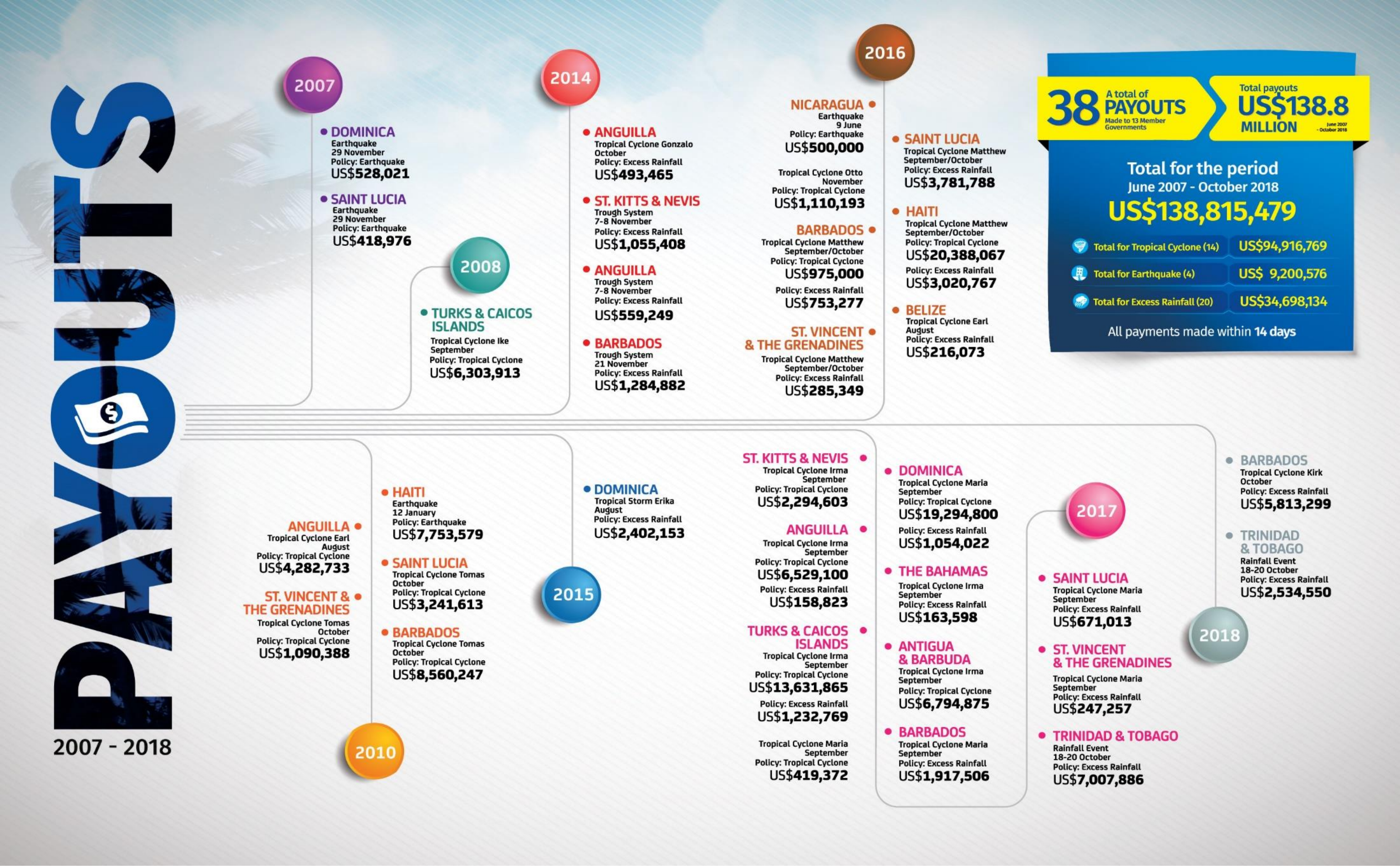


Parametric insurance avoids moral hazard, so can work in full synergy with risk reduction and other tools as part of a holistic catastrophe risk management programme.

Factors Determining Coverage Levels

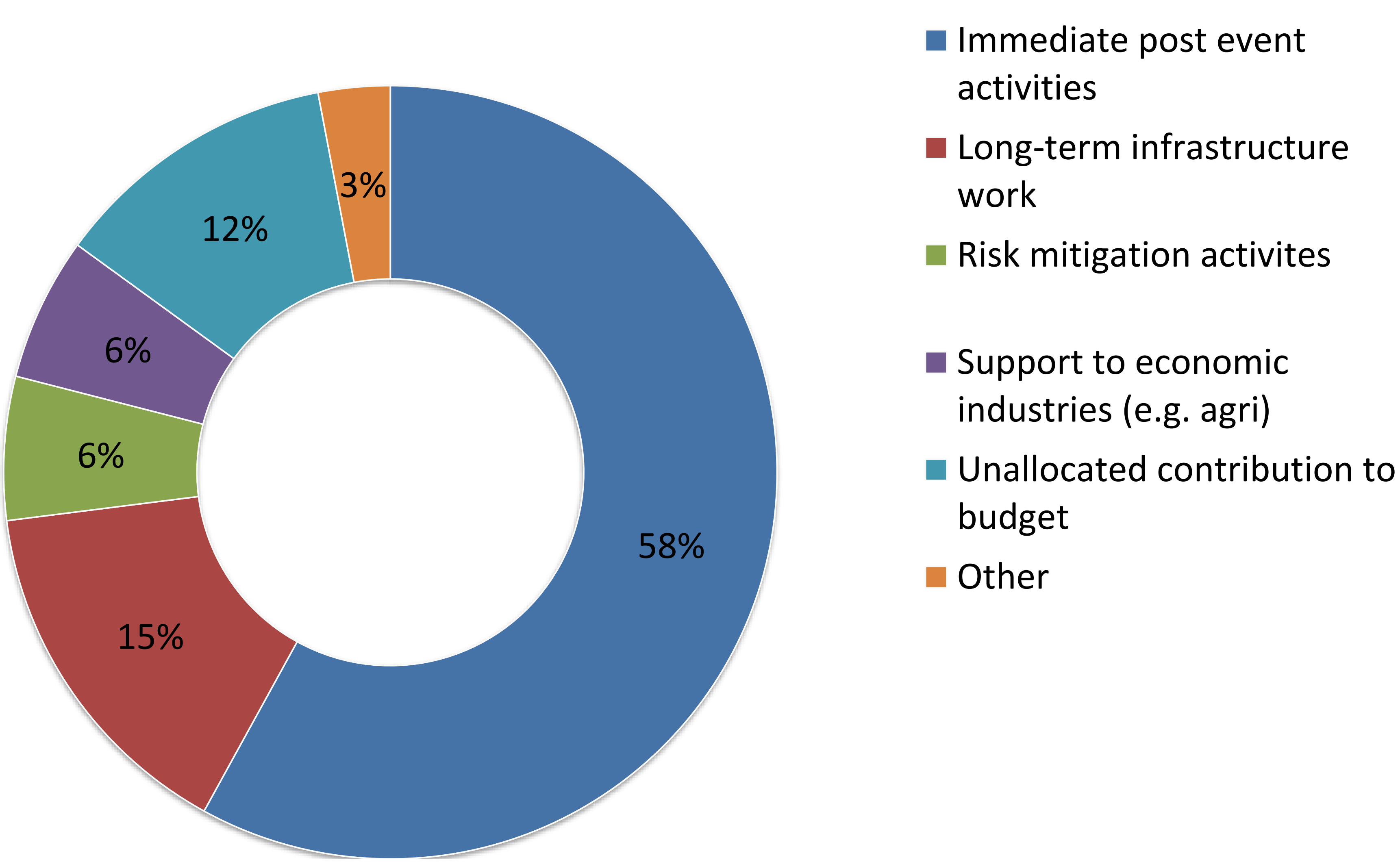
Decisions regarding coverage levels are affected by:

- Level of resources available within the national budget
- Uncertainty about appropriate or best level of coverage
- Level of discounts or special incentives provided by CCRIF
- Need for enhanced understanding among governments of different risk financing instruments and the best way of applying each to maximize benefits to countries (e.g. parametric insurance such as CCRIF and CAT DDOs must be seen as complimentary instruments)



Since 2007, CCRIF has made 38 payouts totaling US$138.8 million to 13 member governments.

Use of CCRIF Payouts



Some Challenges….

1. **High deductible** means that it only covers major catastrophe events in which national economies are severely impacted
2. **Basis risk** means that events can occur which produce losses but no payout (and the opposite is possible)
3. **Concept of parametric** is not fully understood, so clients expect their 'insurance policy' to cover everything
4. **Scale of the risk currently retained is daunting** when converted to annual premium, even at good rate

Lessons Learned

Keeping premiums low - Risk pooling; providing discounts and bundling products when possible bearing in mind fiscal constraints of member

Being flexible and responsive to members' needs; developing new products; providing preferable policy options (e.g. lower attachment points) due to expectations of payouts

Consultations aid project development and underpin continuous improvement

Donor support is invaluable - Frequent interaction; Sourcing funding for new products;Premium Support for most disadvantaged countries

Success depends heavily on the relevant knowledge and experience of decision makers

Stakeholders' interests must be represented

Stakeholder engagement is a continuing objective

Minimize non-essential bureaucracy to lower overhead costs and product price

Third-party monitoring and evaluation can help to broaden or streamline organizational focus as necessary

Know your limitations

Building capacity through training, technical assistance programmes to enhance understanding of CCRIF, DRM and risk transfer in general

Thank You

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