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CCRIF: A Natural Catastrophe Risk Insurance Mechanism for Caribbean Nations

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Presentation Format

- CCRIF background and history
- Aims of CCRIF
- Coverage Offered
- Role in Disaster Risk Management
- Case Study: Haiti Earthquake
- Other Initiatives - CARILEC
- Summary

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The Caribbean context

- Caribbean countries are highly vulnerable to natural disasters, which have caused them average losses amounting to 2% of GDP since 1970.

Vulnerability

- Only 3% of potential loss is currently insured in developing countries vs 45% in developed countries.

Low Coverage

- Immediate access to liquidity is critical for governments and individuals post disaster.

Liquidity

- Smaller nations with high debt burdens can no longer afford to self-finance disaster risk.

Debt Burden

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History

- Pooled re/insurance solution for Caribbean governments first called for by CARICOM Working Party on Insurance after Hurricane Andrew ('92)

- Andrew resulted in US$250 million in damage in Bahamas alone

- Revived in 2004, after Hurricane Ivan inflicted almost 200% of GDP damage on Grenada and the Cayman Islands

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Grenada (post Ivan)






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History

- All parties identified the high exposure of small island economies across the region to natural hazards, and the consequential risk to sustainable development

- CARICOM Heads of Government asked the World Bank to assist in designing and implementing a cost-effective risk transfer programme for member governments

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Aims of CCRIF

- They identified the need for a mechanism to provide:
  - Funds to cover the post-disaster liquidity gap faced by governments between immediate emergency aid and long-term redevelopment assistance
  - A facility which would enable governments to receive money quickly, with the payout calculated in a completely objective way
  - A mechanism which would minimise the burden on governments to provide exposure information prior to coverage being initiated and loss information after a disaster

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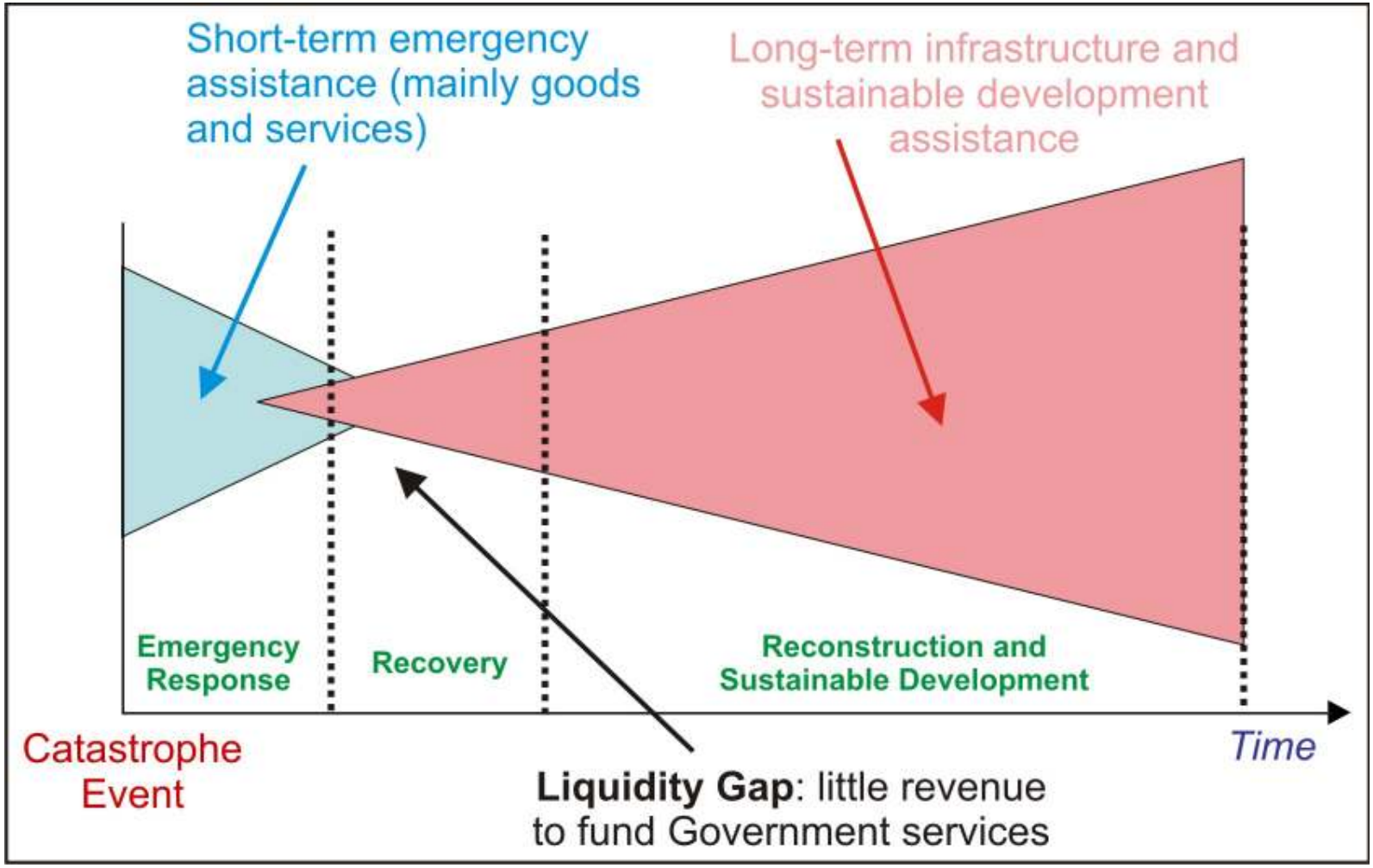
Sovereign Liquidity Gap



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What is CCRIF?

- CCRIF is the world's first multi-national risk pool to cover sovereign risk via parametric insurance
- A regional catastrophe fund for Caribbean governments
- Current policies are designed to limit the financial impact of devastating hurricanes and earthquakes by providing liquidity very quickly after a major event
- Functions like business interruption insurance against Government revenue reductions in the aftermath of major natural catastrophes

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Members

- Controlled by the 16 participating governments, with each government paying a premium related to its own risk exposure and being able to buy coverage up to an annual aggregate limit of US$100 million per peril

• Anguilla	Antigua & Barbuda
• Bahamas	Barbados
• Belize	Bermuda
• Cayman Islands	Dominica
• Grenada	Haiti
• Jamaica	St Kitts & Nevis
• St Lucia	St Vincent & Gdns
• Trinidad & Tobago	Turks & Caicos Islands

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How it works

- Parametric policies
- Loss on ground estimated by using data from the National Hurricane Centre (NHC) in the case of hurricanes and the United States Geological Survey (USGS) in the case of earthquakes, and a pre-agreed proxy relationship developed within a catastrophe risk model.
- Loss adjusters not required to survey affected governments to determine loss which facilitates a quick claim Settlement Procedures

Claims Settlement Procedure

•A preliminary calculation of the losses is made immediately after an event by the Facility Supervisor

•Final calculation is made 14 days after the event to ensure the best information is available from the hazard reporting agency

•If the loss is above the attachment point, a payout is made to governments

•Loss and payout calculations are verified by a third party and a verification report is issued.

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Coverage

- CCRIF issued 29 annual policies to 16 CARICOM countries in 2009
- CCRIF initially raised capital to cover claims and operating costs from donors (over US$65 million) and from its participants (c. US$22 million).
- CCRIF retaining first US$20 million of losses during the year
- For 2009/10, purchased US$132.5 million in reinsurance (including US$30 million via a cat swap with capital markets) and the remainder in the traditional markets
- Claims paying capacity is greater than the modelled aggregate annual loss with a 1 in 10,000 chance of occurring

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Benefits

- Pooling of risk across wide geographical area and in a single reinsurance transaction provides excellent diversification and access to coverage previously unavailable
  - Better pricing from global markets
  - allows innovative structures
- Parametric policies allow total objectivity and rapid payouts
- The loss amount is calculated entirely objectively using a formulae defined in the insurance policy
- The technical risk on an insurance contract is better defined because there are fewer uncertain variables. This provides greater opportunity for risk transfer to capital markets

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Limitations

- High deductible means that it only covers major catastrophe events in which national economies are severely impacted (1 in 15-yr loss for hurricanes, 1 in 20-yr for quake)
- Basis risk means that events can occur which produce significant losses but no payout (and the opposite is possible)
- Basis Risk:
  - The difference between the loss calculated from the model and the actual physical loss on the ground
  - Because cat models contain significant uncertainties, basis risk can be high in parametric contracts
- Basis risk is lower the more unlikely an event is:
  - Therefore parametric contracts are best suited to covering rare/large catastrophe events
- Concept of parametric is poorly understood which can lead to challenges

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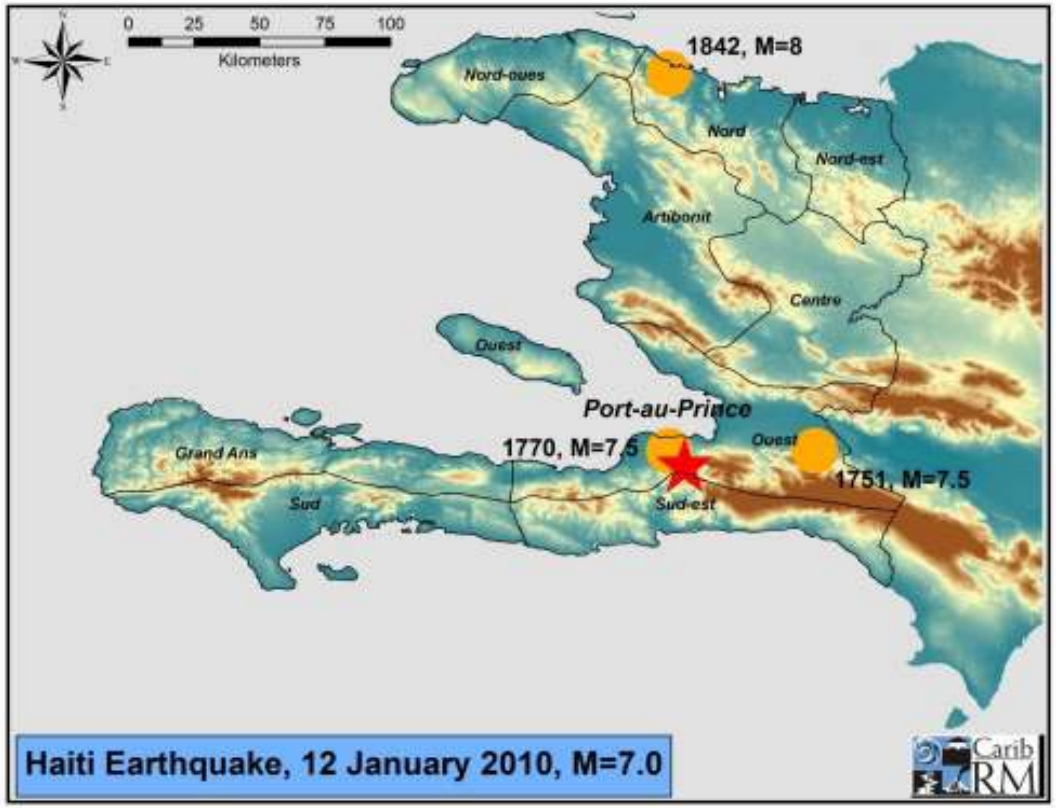
Case study: Haiti Earthquake

- Magnitude 7.0 earthquake
- Shallow (13 km) depth
- 25km SW of Port au Prince
- Catastrophic damage
  - huge loss of life
  - national infrastructure devastated (13 of 15 ministry bldgs destroyed)
- Immediate and long term economic impacts



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CCRIF: Haiti Result

- Triggered full policy limit with CCRIF.
- Haiti received US $7,753,579 within 14 days.
- 20 times their premium for earthquake coverage of US$385,500.
- CCRIF payout the first set of funds to be received by the Haitian Government inclusive of all pledges made.
- Fund will be used to fund essential government services– keep the state functioning.

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Insurance as a Risk Reduction Tool

- Parametric and traditional insurance are both natural companions to risk reduction within an overall risk management framework.
- Risk reduction is vital and should be continuous.
- Risk transfer (insurance) is cost efficient to handle risks that are too expensive to reduce/mitigate.

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Regional Role of CCRIF

- Assist in the recovery and reconstruction process through provision of liquidity.
- Can facilitate the implementation of risk management measures that reduce risk and heighten resilience.
- Promote risk assessment and risk management tools at all levels (*e.g.* Real Time Forecasting System.)
- Parametric instrument can be used in the design of suitable index-based or hybrid products at sub-national level either directly or via community-based partners.
  - *e.g.* CCRIF involved in creation of a captive for CARILEC to cover its members' T&D exposures and looking into provision of coverage to growers' associations in agriculture sector:
  - Providing access to coverage where previously unavailable

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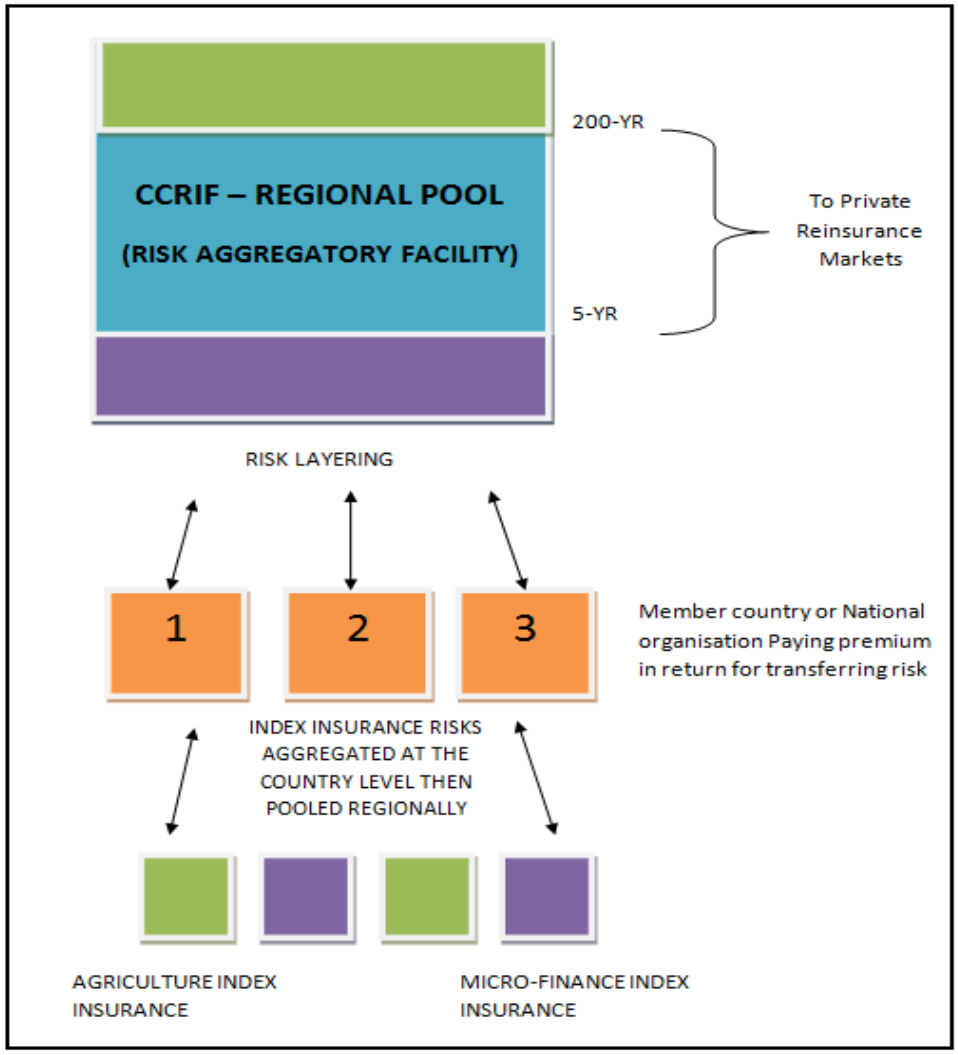
Schematic of CCRIF role



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Summary Points

- CCRIF is the world's first parametric risk pool and the first multi-national pool covering sovereign risk
- CCRIF shows the feasibility and benefits of multi-country risk transfer and risk sharing
- CCRIF has successfully implemented a low-cost insurance programme for governments which has maximised its attraction to participants, donors and risk transfer markets
- Already a proactive initiative within the region
- CCRIF works because
  - payouts are fast
  - premiums are low
  - the pool is mutually beneficial, transparent and fair

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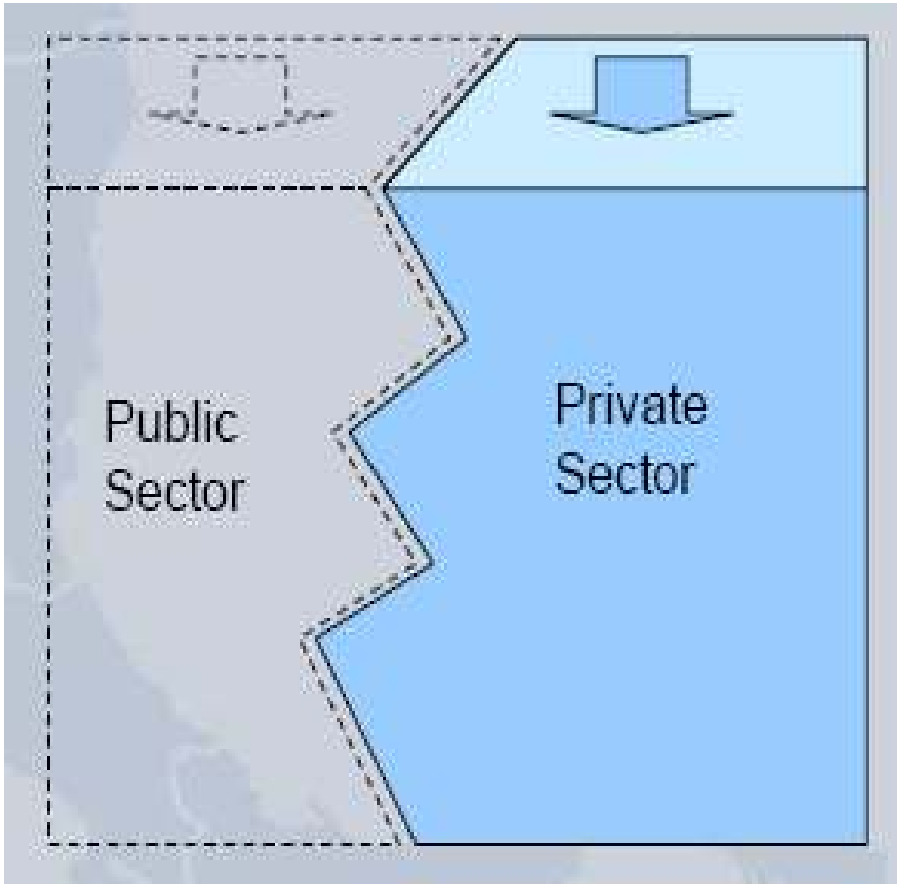
Going Forward: Reducing the Financial Exposure of the State: Public and Private Shared Responsibility

- Promotion of insurance and linking this with improvement in risk management measures to reduce vulnerabilities on regional and national scale
- Regulation and control of the insurance/reinsurance sector
- Creation/support to reserve funds to support catastrophe insurance (pool.)



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The End

Thank you