

CCRIF

The Caribbean Catastrophe Risk Insurance Facility



A Guide to Understanding CCRIF

A Collection of Questions and Answers

CCRIF, a not-for-profit company, is the first multi-country risk pool in the world.

A Guide to Understanding CCRIF...
...its Role in Comprehensive Disaster Management

A Collection of Questions and Answers

Published by:

Caribbean Catastrophe Risk Insurance Facility
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P.O. Box 2171, George Town, KY1 - 1105
Grand Cayman

Design and Layout: Sustainability Managers, Communications Manager, CCRIF
Printed by: MAPCO Printers Limited, Kingston, Jamaica

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About this Book

Among the challenges facing the governments of small island states in the aftermath of natural disasters is the need for short-term liquidity to start recovery efforts while maintaining essential government services. This challenge is particularly acute for Caribbean governments, whose economic resilience is limited by the combination of substantial vulnerability, small economic capacity, and high levels of indebtedness. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) was established as a joint reserve fund to provide participating CARICOM governments with an instrument to address this need. This instrument, akin to business interruption insurance, provides member governments with short-term liquidity if hit by a major hurricane or earthquake.

This book provides a number of questions that you may have about CCRIF and answers to those questions. We hope that you will find this information useful and we look forward to expanding the document to include answers to other questions as they emerge.

List of Acronyms

5C's	Caribbean Community Climate Change Centre
CARICOM	Caribbean Community
CARILEC	Caribbean Electric Utility Service Corporation
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDB	Caribbean Development Bank
CDEMA	Caribbean Disaster and Emergency Management Agency
CDM	Comprehensive Disaster Management
CIMH	Caribbean Institute for Meteorology and Hydrology
FLM	Facility Loss Model
GDP	Gross Domestic Product
Kinanco	Kinetic Analysis Corporation
NDC	National Disaster Coordinator
NGO	Non-Governmental Organisation
NHC	National Hurricane Center
RTFS	Real Time Hazard and Impact Forecasting System
TAOS	The Arbiter of Storms (Modelling Technology)
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
US	United States
USGS	United States Geological Service

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Message from the Chairman, Mr. Milo Pearson



I am very pleased to introduce the Caribbean Catastrophe Risk Insurance Facility's (CCRIF) newest publication – a collection of questions and answers about CCRIF. This publication is a follow-on from the one produced in December 2009 which was a collection of technical papers written about the Facility.

This book is intended to enable the reader to gain greater insight into the workings of CCRIF as a catastrophe risk transfer facility and its role in comprehensive disaster risk management in Caribbean countries.

We believe that this publication will be useful to all governments in the region, national disaster coordinators, finance and planning officials, meteorological and other scientific agencies, research institutions, students and regional and international organisations, as they participate in the creation and implementation of comprehensive disaster management frameworks towards the sustainable prosperity of our planet.

A handwritten signature in red ink, appearing to read 'Milo Pearson', written in a cursive style.

CCRIF - A Natural Catastrophe Risk Insurance Mechanism for the Caribbean



CCRIF Vision Statement

CCRIF will be a key partner with the Caribbean region in its disaster risk management strategies to support long term sustainable development goals.

CCRIF Mission Statement

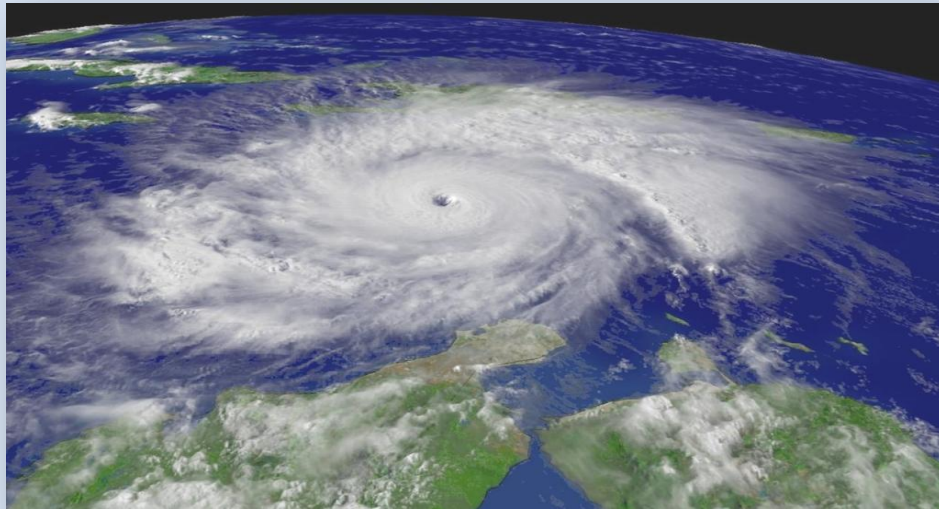
Our Mission is to serve Caribbean governments and their communities in reducing the economic impact of natural catastrophes. We provide immediate liquidity through a range of affordable insurance products in a way that is financially responsible and responsive to their needs.

Q. What is CCRIF?

A. CCRIF is the first multi-country risk pool in the world, and is also the first insurance instrument to successfully develop parametric policies backed by both traditional and capital markets. It is a regional catastrophe fund for Caribbean governments, designed to limit the financial impact of devastating hurricanes and earthquakes by quickly providing financial liquidity when a policy is triggered. CCRIF operates as a public-private partnership, and is set up as a non-profit 'mutual' insurance entity in the Cayman Islands.

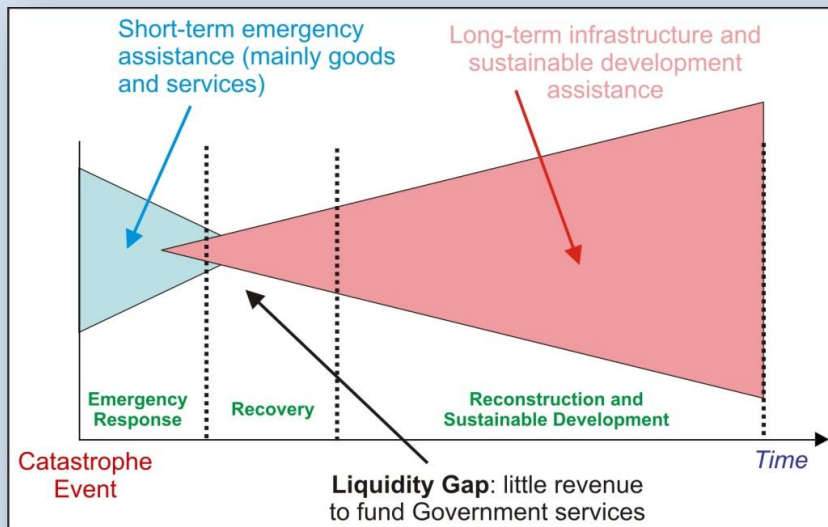
Q. Why was CCRIF established?

A. The CCRIF idea was prompted by Hurricane Ivan in 2004, which caused billions of dollars of losses across the Caribbean. In both Grenada and the Cayman Islands, losses were close to 200% of the national annual GDP. Following the passage of Ivan, the Caribbean Community (CARICOM) Heads of Government held an emergency meeting to discuss critical issues surrounding the need for the provision of catastrophe risk insurance for its members. Consequently, CARICOM resolved to take action and approached the World Bank for assistance to design and implement a cost-effective risk transfer programme for member governments. This marked the beginning of what would become the Caribbean Catastrophe Risk Insurance Facility.



Q. What is the main purpose of CCRIF?

A. CCRIF was developed to help mitigate the short-term cash flow problems small developing economies suffer after major natural disasters. A critical challenge is often the need for short-term liquidity to maintain essential government services until additional resources become available. Although *ex post* disaster funding from bilateral and multilateral agencies can be an important component of a government’s catastrophe risk management strategy, over-reliance on this approach has obvious limitations. Unfortunately, donor assistance often takes months to materialise, and usually supports specific infrastructure projects. 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.



Q. What products does CCRIF offer?

A. CCRIF has, in its first three years of operation, offered separate hurricane (wind) and earthquake policies. Caribbean governments may purchase coverage which triggers for a 'one-in-15-year' hurricane and a 'one-in-20-year' earthquake, with maximum coverage of US\$100M available for each peril. The cost of coverage is a direct function of the amount of risk being transferred, ensuring no cross-subsidisation of premiums and a level playing-field for all participants.



Q. Will CCRIF have a new product involving excess rainfall coverage in the near future?

A. Yes. CCRIF excess rainfall coverage will be available during the 2010/11 policy year. The development began with many CCRIF participating countries and stakeholder partners expressing a strong interest in being able to contract for catastrophic flood coverage. In response to these needs, CCRIF, using the World Bank's Global Fund for Disaster Risk Mitigation, partnered with the Caribbean Institute for Meteorology and Hydrology (CIMH) to determine the feasibility of this coverage for member governments.



Following this study, CCRIF contracted CIMH and a specialised hazard modelling company, Kinetic Analysis Corporation (Kinanco) to develop and test a synthetic numerical rainfall model and, with input from Caribbean Risk Managers (CCRIF's Facility Supervisor), implement a parametric excess rainfall insurance product. The excess rainfall product will utilise the rainfall amounts generated by the model as the parameter which triggers coverage. The proof of concept for the model and a comprehensive testing programme were undertaken during the second half of 2009. In January 2010, the rainfall model was installed at CIMH and training provided to allow stand-alone, 24/7 operation of the model by CIMH.



CCRIF's excess rainfall coverage will be a separate product from the currently available hurricane and earthquake policies, which remain of utmost importance, as seen from the recent devastating earthquake in Haiti, whose earthquake policy was triggered to effect a rapid payout of US\$8 million. The rainfall product will be offered to Caribbean governments in 2010, and its aim is to reasonably replicate the overall impacts of extreme rain events.

Q. Will CCRIF consider developing a product for the agriculture sector or utility companies?

A. Yes and in fact both areas are under consideration. CCRIF is currently collaborating with the Caribbean Electric Utility Service Corporation (CARILEC) in developing an insurance programme to provide parametric wind coverage to electric utilities in the region to enable cost-effective protection of their highly vulnerable overhead transmission and distribution systems. With respect to the agricultural sector, CCRIF is closely monitoring activities by the World Bank and other development agencies with a view to ascertaining how CCRIF can be best utilised as part of the solution for the provision of index-based agricultural coverage, via governments or their agencies, to farmers. CCRIF is supportive of the efforts to bring such coverage into the pipeline and, if and when that happens, CCRIF would likely play a risk transfer role in the exercise and also provide technical support.



Q. Why was CCRIF designed as a parametric facility?

A. There are four main reasons CCRIF was designed as a parametric facility:

- 1. Payouts can be calculated and made very quickly because loss adjusters do not have to be relied on to estimate damage after a catastrophe event, which can take months or years;**
- 2. Governments do not have to provide detailed asset values and other information prior to the insurance programme commencing, and have just one form to sign during the entire claims process;**
- 3. Calculation of payouts is totally objective, based on a few simple input parameters published widely in the public domain from the globally-mandated body responsible for estimating those particular parameters, and a set of formulae which form part of the policy; and**
- 4. The risk, which drives policy pricing, is uniformly defined (*i.e.* there is no subjectivity in the definition of the risk).**

Q. How does CCRIF work?

A. Since CCRIF was tasked with the goal of providing liquidity quickly, a parametric insurance programme was developed. This allows the Facility to estimate the loss on the ground 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. This method means that loss adjusters are not required to survey affected governments to determine loss, a process which can take several months or years and would prevent the CCRIF from doing what it was set out to do — get funds to member governments quickly. The information provided by the NHC and the USGS are in the public domain and so are available for scrutiny. Both agencies are well-regarded and have been used for years by Caribbean disaster management officials to properly plan for natural disasters.

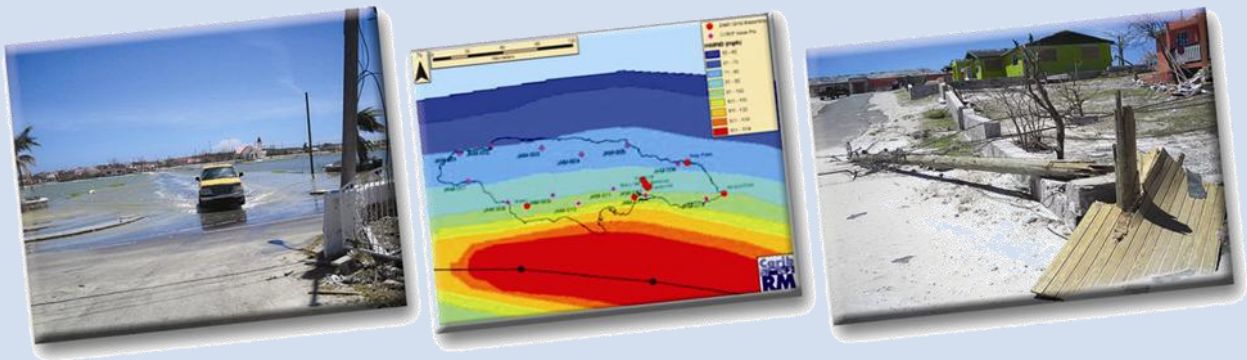
For CCRIF, the payout calculation and claims settlement proceeds as follows:

a) Facility Supervisor calculates the losses to the Government for the event in each member country using NHC or USGS information and either the relevant parametric equations (for current policies) or the escrowed loss model (for the revised policies.) In both cases, a government impact loss is derived using hazard information as a proxy. A preliminary calculation is made immediately after an event, but the final calculation is made 14 days

after an event to ensure that the best information is available from the hazard reporting agency.

b) If the loss falls above the attachment point (which is the equivalent of a deductible) for a country then a payment is made. The amount of payment is calculated as a proportion of the annual coverage limit purchased by the country. The payout is subject to a minimum of an amount equivalent to the annual premium for that peril, and is paid to the government of the country as soon as the final calculation is made (subject to additional funds being available from reinsurers for very large claims).

c) The loss and payout calculations are verified by a third-party agent and a verification report is issued.



Q. Who are the members of CCRIF?

A. Sixteen governments are currently members of the Facility:

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



Q. Who can become a member of CCRIF?

A. CCRIF is open to governments only and, currently, specifically to CARICOM members. However, non-CARICOM governments can also be considered for participation.

Q. What factors determine if there is a payout or not?

A. The CCRIF payout calculation proceeds in a very similar way to a traditional insurance payout. The only difference is the way in which the loss is estimated. For CCRIF, the loss is calculated through an index or model in which hazard levels (wind, storm surge and waves for hurricane, ground shaking for earthquake) are used as a proxy for losses. In a traditional loss estimation, a loss adjuster will visit each claim and decide what the cost of repair is relative to the original replacement value of the building. Thereafter, payment is dependent on the total amount of coverage a government buys and the deductible selected.

It is important to note that the object of the Facility is not to cover the entire losses faced by affected states, but to provide, in case of a major adverse event, short-term liquidity to covered governments to fund both disaster response and basic government functions.



Q. What is CCRIF’s hazard and loss modelling framework?

A. CCRIF’s second-generation hazard and loss modelling framework has been developed to assist CCRIF in developing new policy formulations and in developing regional technical capacity in catastrophe risk modelling. It will enable a new approach to policy formulation - one of modelled loss instead of index parametric, the latter being the current basis for policies. This means that the new policy will be able to reduce the basis risk in the parametric loss estimates by modelling each loss as it happens, rather than reducing the loss estimation methodology to a series of equations. Furthermore, the new model will use the best definition available of the entire wind, storm surge and wave field for hurricane policies and earthquake shaking field for earthquake policies to drive its loss model. Instead of being estimated only at distinct measuring points, the new model estimates the level of hazard and consequent loss for every 1km grid square of a country’s territory. The losses are then added up across the country to find the total country-wide loss.

Given the operational needs of CCRIF, its hazard and loss modelling framework must meet the Facility’s objectives accurately and in a manner that provides the Facility with both reasonable calculation times and maximum flexibility in designing and costing contract options. The CCRIF Facility Loss Model (FLM) is a stand-alone tool designed to enable the Facility to:

- estimate loss probabilities for individual territories and a portfolio of territories with specific contract terms;
- price contracts for specific territories; and
- estimate site-specific hazard levels and losses for specific events — either historical or active events during the contract period.

Main strengths of the FLM are that it:

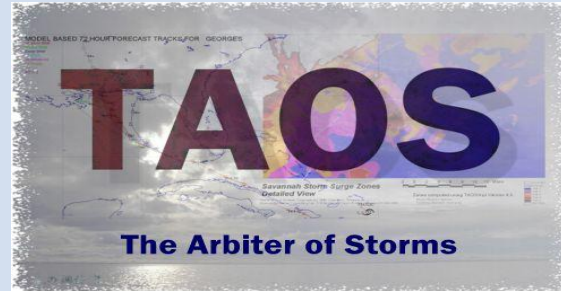
- is built upon a strong, validated hazard modelling base;
- uses the same techniques and code for both historical hazard assessment and loss modelling as well as real-time storm modelling and payout calculation;
- is implemented using open modelling techniques from the published scientific literature;
- is highly scalable and can be applied at a wide range of modelling resolutions; and
- is implemented on a geographic base, enabling straightforward generation of results in mapping formats.

Q. Why does CCRIF use National Hurricane Center data to determine loss for hurricanes and USGS information for earthquake loss and not a country's own Doppler radar or other local measuring tools?

A. In order for CCRIF to secure reinsurance in the international market, reinsurers must trust that the information is from an independent and reliable source. Since Doppler radar and other meteorological and geophysical data collection instruments in the region are operated by institutions within the very governments purchasing the CCRIF insurance product, there could be a conflict of interest in directly using the information from these measuring sources to determine loss. There is also the issue of maintaining local measuring tools in order to ensure that they give accurate readings as well as ensuring that all member governments have the same access to the same kinds of measurement equipment, which currently is not the case. The Doppler radar does provide a good picture of wind speed as well as other storm characteristics (e.g. rainfall), and these outputs from our Caribbean member governments are fed to the NHC in Miami which uses that data (amongst a large amount of other data including actual measurements from dropsondes and flights – which involves meteorologists dropping equipment directly into a hurricane, in flight – to accurately measure temperature, humidity and wind speed) in their outputs. Likewise, regional seismic monitoring data feeds into the United States Geological Survey Global Data Center, which utilises the information to provide a best estimate of an earthquake location and magnitude.

Q. What is the Real Time Hazard and Impact Forecasting System (RTFS) and how can it be used by member countries?

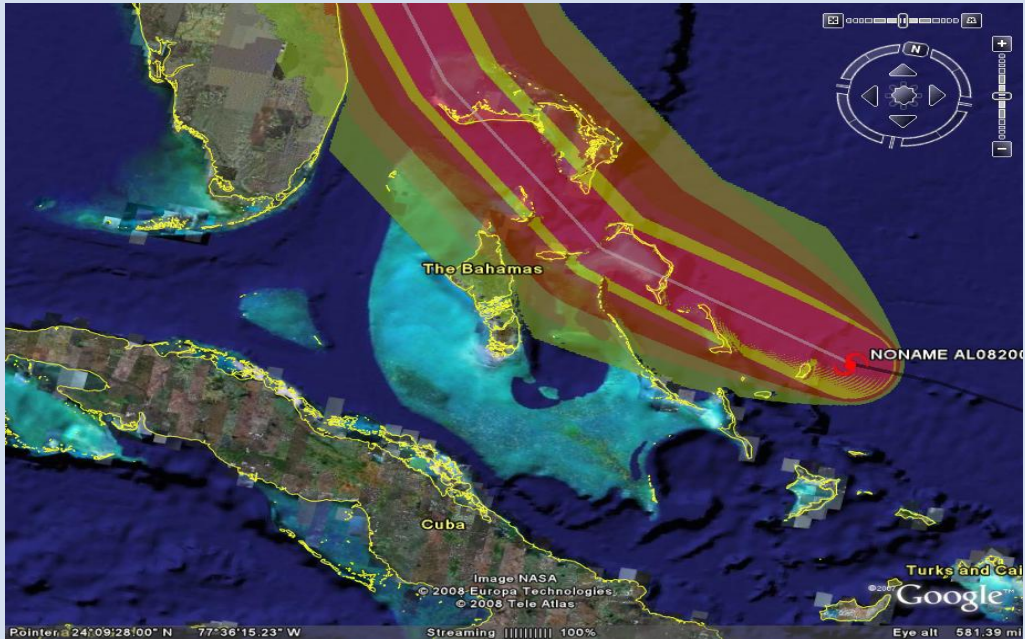
A. Starting in the 2008/09 hurricane season CCRIF offered members and supporting partner organisations access to Kinanco's Real Time Hazard and Impact Forecasting System (RTFS), which is a storm impact forecast tool, built on the core TAOS ('The Arbiter of Storms') modelling technology which also supports CCRIF's second-generation loss model.



The RTFS provides countries with access to hazard and impact maps in Google Earth which show wind speed over terrain, wave height in open water, storm surge height and inundation along the coast, cumulative rainfall over the duration of the storm, and wind effects on vegetation, structures and electrical power.

Through this platform, information is provided on expected impacts of storms/hurricanes on populations, land area, ports and airports. The Caribbean Institute for Meteorology and Hydrology (CIMH) provides outreach support to national meteorological and disaster management

agencies, the latter in partnership with the Caribbean Disaster and Emergency Management Agency (CDEMA).



- taos_ccrif_hazards_kml
- [al082008_ofcl_windcats](#)
- Weak Tropical Storm
- Strong Tropical Storm
- Category 1 (74-95mph)
- Category 2 (95-110mph)
- Category 3 (110-130mph)
- Category 4 (130-155mph)
- Category 5 (over 155mph)

Wind Speeds (Maximum)

Q. How are CCRIF policies renewed?

A. CCRIF policies are renewed on 1 June every year and last for one year. Each year, countries have the opportunity to consider their coverage characteristics (deductible and policy limit) and premium level. CCRIF has been able to reduce premiums by around 10% each year and aims to continue to keep prices as low as possible while maintaining a level of financial security which will ensure that it can pay claims in full even for the largest events.

Q. How are premiums determined?

A. Premiums are determined by the amount of coverage a country decides to take, the attachment and exhaustion points of that coverage, and the risk profile of the country. Thus each country pays in exact proportion to the amount of risk it is transferring to CCRIF, so that there is no cross-subsidisation.

Q. Has CCRIF made payouts to date?

A. Yes. In 2007, CCRIF paid out almost US\$1 Million to the Dominican and St Lucian governments after the 29 November earthquake in the eastern Caribbean, and in 2008, CCRIF paid out ~US\$6.3 Million to the Turks & Caicos Islands after Hurricane Ike made a direct hit on Grand Turk. Most recently, Haiti received a payment of US\$7.75M (approximately 20 times their premium for earthquake coverage of US\$385,500) 14 days after being struck by a devastating earthquake of magnitude 7.0 on 12 January 2010.



Prime Minister and Minister for Finance of Dominica, Hon. Roosevelt Skerritt, accepts a cheque for US\$528,021, the full amount the government received for the 29 November 2007 earthquake, from Dr. Simon Young, CEO of Caribbean Risk Managers Ltd, Facility Supervisor of CCRIF

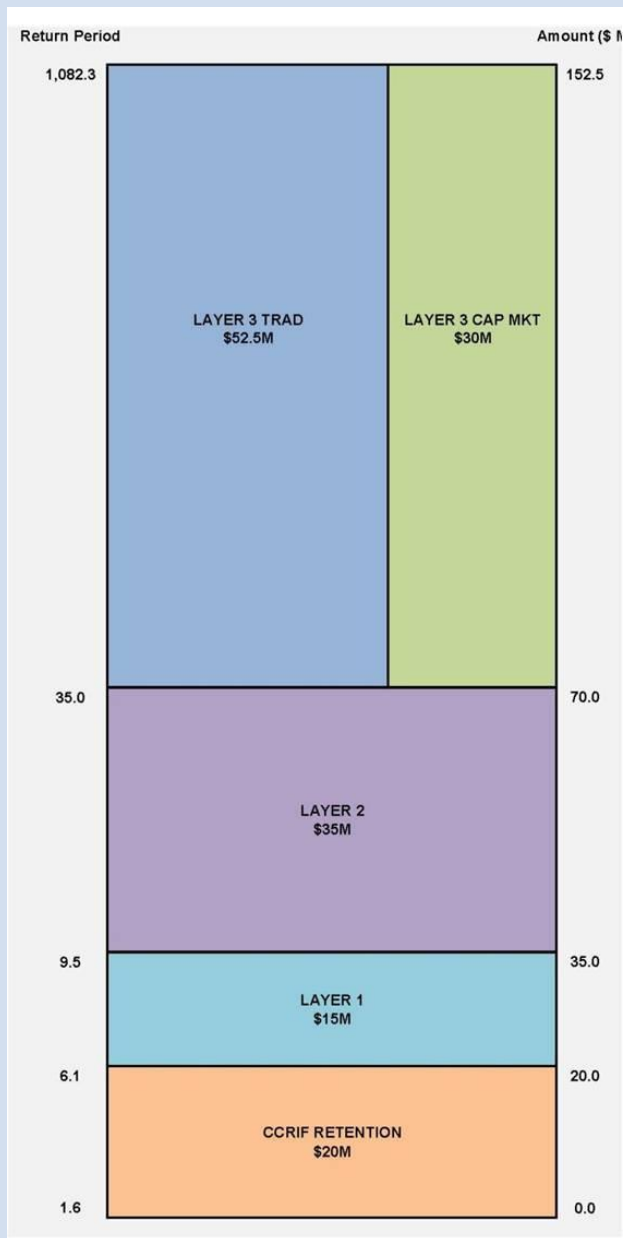
Q. How is the financial stability of CCRIF sustained?

- A. CCRIF functions similarly to a mutual insurance company which is controlled by its participating governments. It was initially capitalised by the participating countries themselves, with support from donor partners. To better understand how CCRIF functions, one could consider a system by which several countries would agree to combine their emergency reserve funds into a common pool. If each individual country were to build up its own reserves to sustain a catastrophic event, the sum of these country-specific reserves would be much larger than the actual needs of the pooled countries in a given year. Considering that on average only one to three Caribbean countries are affected by a hurricane or an earthquake in any given year, a pool holding only the reserves for three potential payouts should be sufficient for the entire group of countries participating in the pool. Each year as the pool is depleted, participating countries would replenish it in proportion to their probable use of the funds in the pool.

CCRIF works in a similar manner by combining the benefits of pooled reserves from participating countries with the financial capacity of the international financial markets. It retains some of the risk transferred by the participating countries and transfers the remainder of the risk to reinsurance markets when it is cost-effective to do so. This structure results in a particularly efficient risk financing instrument that provides participating countries with insurance policies at approximately half the price they could obtain if they approached the reinsurance industry on

their own. The use of a parametric insurance mechanism to control payouts from the pool ensures that each country gets an equivalent proportion of funds out of the pool as it has paid in over the long term.

For 2009–2010, CCRIF’s aggregate exposure for policies written was just over US\$600 Million. US\$20 Million was retained by CCRIF, with US\$132.5 Million in reinsurance being purchased above that to increase the claims-paying capacity of the Facility (see figure at right). Reinsurance was purchased from the international reinsurance markets, including Munich Re, Swiss Re, Paris Re,



Partner Re and Lloyd's of London syndicate Hiscox. US\$30 Million of the top layer of risk was placed into the capital markets via a catastrophe swap between CCRIF and the World Bank Treasury. The top of the reinsurance structure, at US\$152.5M, provides claims-paying capacity for aggregate annual losses with a less than 1-in-1,000 chance of occurring.

With CCRIF's own additional capital, the claims-paying capacity of CCRIF for the 2009-2010 policy year was greater than the modelled aggregate annual loss with a 1-in-10,000 chance of occurring. Hence CCRIF would have been able to survive a series of loss events with a less than one-in-10,000 chance of occurring within the 2009-2010 policy year.

Q. How does CCRIF use donations and premiums paid to the Facility?

A. CCRIF keeps its assets relatively liquid to ensure quick payout if a member government's policy is triggered. At least US\$20M is held as cash or cash-equivalent, while the remainder is managed by a specialist investment company. The returns on these investments are used to lower the long-term costs of premiums and to offset the Facility's operating costs. The CCRIF Insurance Manager adheres to strict financial reporting guidelines, updating the Board on the financial status of the fund by issuing quarterly financial statements, and meeting all auditing and reporting requirements of the Cayman Islands Monetary Authority. In addition to CCRIF's own assets, it continues to have access, via a Grant Agreement, to the World Bank-administered CCRIF Multi-donor Trust Fund, which comprises the funds provided by donors to 'capitalise' CCRIF. These funds are utilised to pay operational costs, reinsurance premiums and claims. On behalf of these donors, the World Bank provides governance, financial and operational oversight and review of CCRIF, including annual project reviews.

Q. Why was there a payout for Dominica and St. Lucia after the November 2007 earthquake but none for the islands affected by Hurricane Dean in August 2007?

A. Most of the losses inflicted on Jamaica, St. Lucia and Dominica as a result of Hurricane Dean were to the agricultural sector which is specifically NOT covered in the CCRIF modelling (as it is not a direct cost to government). Also, the 20-year deductible for hurricanes is much higher (in terms of the dollar value of losses) than for earthquakes, hence the policy will trigger a payment for a smaller overall loss from an earthquake as opposed to a hurricane in almost all countries, with Trinidad & Tobago being the only exception (because of its high earthquake risk). Lastly, there were losses in both St. Lucia and Dominica as a result of the earthquake, with both governments providing certification that such losses occurred, thus meeting policy requirements.

Q. Why was there no payout after Hurricane Dean (2007) from CCRIF?

A. Hurricane Dean was one of two Category Five hurricanes that affected the Caribbean in 2007. Fortunately, both hurricanes skirted around CCRIF member countries. This is not to say that there was no impact; in Jamaica, losses were recorded on the south coast, while heavy rainfall and tropical storm winds associated with the hurricane were recorded in Dominica and St. Lucia; in Antigua and St. Kitts & Nevis, storm surge and rainfall were also experienced. However, none of the losses recorded were sufficient to trigger payout for any of the governments due to the level of their policy attachment point (deductible). What Dean did show was that the parametric index calculation used to determine payout is robust, in that the calculations could be reproduced and justified. It also pointed to the desirability for CCRIF's coverage to include rainfall. Due to the significant investments by CCRIF, coupled with technological developments, excess rainfall coverage will be available to CCRIF member countries during the 2010/11 policy year and beyond.

Q. How does CCRIF fit in with a country's hazard risk management framework?

A. CCRIF provides a working model of an innovative risk management mechanism that provides cost effective risk transfer as part of a holistic disaster risk management framework within the Caribbean.



Q. How is CCRIF supporting or contributing to the discussions related to climate change?

A. CCRIF is involved in supporting the utilisation of financial tools as part of disaster risk management strategies within its member states.



This is part of a broader regional strategy designed to support critical adaptation initiatives targeted at reducing the disproportionately high burden created by climate change on Caribbean countries. CCRIF's contribution has also extended to involvement in global discussions on the use of insurance mechanisms to address some of the risks posed by climate change, as part of the negotiation process leading up to 15th meeting of the UN Conference of the Parties in Copenhagen (COP15) in December 2009.

On a regional and national scale, CCRIF is investing significant resources in the development and enhancement of a quantitative knowledge base for key climate change risks and adaptation strategies for decision making across

the region. One such initiative involves the implementation of the Economics of Climate Adaptation methodology, developed by Swiss Re and McKinsey, in the Caribbean. This initiative is being undertaken in conjunction with specialists from Swiss Re and McKinsey and will be supported by key regional partners, Caribbean Community Climate Change Centre (5C's) and the United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC).

Q. Are there any capacity building or other collaborative relationships that CCRIF is engaged in with Caribbean/regional organisations?

A. CCRIF is committed to building partnerships with all stakeholders in the pursuit of improving management of the catastrophe risks faced by the Caribbean region through risk reduction and risk transfer. In fact, parametric catastrophe coverage is only one way in which the Facility is assisting the Caribbean region to become disaster resilient. CCRIF works with partner organisations such as the Caribbean Institute for Meteorology and Hydrology (CIMH) and the Caribbean Disaster and Emergency Management Agency (CDEMA) to provide data and other technical assistance for better planning for, response to, and recovery from natural catastrophes. CIMH, with CCRIF support, is currently running detailed weather forecast models over Haiti to identify those watersheds that may receive heavy rainfall and would be prone to flooding, in particular flash flooding. This will reveal the probability of landslides and flooding in the



Dr. Warren Smith, Director of Finance and Corporate Planning at the CDB and Board member of the CCRIF, looks on as Mr. Jeremy Collymore, Coordinator of CDEMA and Mr. Milo Pearson, Chairman of the CCRIF shake hands on the signing of the MOU between their two agencies in August 2009.

areas that have been affected by the earthquake and will facilitate proactive action.

Also, CCRIF has begun rolling out a technical assistance programme for the region to include three components as follows:



The scholarship programme, a part of which will be offered at UWI, will be made available in the next academic year – 2010/11. The regional 'strategic' knowledge-building component, for example, is expected to include projects within the various tracks, one of which is support for UN-ECLAC in updating their post-disaster loss assessment methodology and exploring synergies with economic loss modelling within the CCRIF second generation loss modelling framework.

Q. Why does CCRIF not offer products to companies or private individuals?

A. CCRIF was not set up to compete with the current insurance markets in the Caribbean. Parametric policies similar to those offered by CCRIF are available to companies, and would not be suitable for purchase by individuals. Where the private sector insurance markets are clearly lacking and a particular segment of the commercial activities of the region is of vital importance to post-disaster national recovery, CCRIF can provide support, both technical and financial, to develop parametric insurance solutions. A specific example of this is the case of the regional electric utilities, for whom insurance of their overhead transmission and distribution assets is too expensive or unavailable. CCRIF is working closely with the regional association of utilities, CARILEC, to develop a stand-alone insurance product to provide such coverage, utilising CCRIF's technical expertise, modelling capacity and operational experience.

Q. Should governments consider other financing mechanisms as part of their disaster management framework or is CCRIF enough?

A. CCRIF's policies do not obviate the need for Caribbean governments to continue to invest in mitigation activities and in other financing mechanisms to cover relatively small losses that occur more frequently, such as flash floods, tropical storms and heavy rainfall. CCRIF provides a cost-effective solution for just one part of the larger comprehensive disaster management (CDM) process.

Q. Wouldn't Caribbean governments better serve their constituents by putting the money spent on premiums in a National Disaster Fund?

A. The Facility does not obviate the need for Caribbean governments to set up a National Disaster Fund. Those funds will be useful in recovery efforts in more frequent events — flash floods, tropical storms, heavy rainfall — which do not cause catastrophic loss, but do impact on the smooth and effective operation of a country. One of the main issues Caribbean governments must contend with is properly budgeting for each fiscal year; natural disasters, which are inevitable, must be properly planned for if economic targets such as GDP growth are to be met. Saving US\$100M in a fund to cover disasters is near impossible for many Caribbean governments

considering the pressure many face to provide social goods to citizens. CCRIF, therefore, represents a cost-effective way to provide immediate liquidity to begin recovery efforts for an individual government after a catastrophe until donations and pledged support become available. For the lowest possible premium cost, governments have almost immediate access to a large quantum of liquidity from CCRIF when large events overwhelm even the largest disaster funds.



Q. How can additional information on CCRIF be accessed?

A. Interested persons can access additional information on CCRIF by visiting our website at www.ccrif.org or by contacting pr@ccrif.org.

Q. Are there any publications that could enhance understanding of CCRIF?

A. Over the last year, CCRIF has put together documents and articles aimed at improving our communication to members and stakeholders as well as for our own governance and accountability requirements. Some of these documents include:

- Annual Reports 2007/08 and 2008/09
- Quarterly Reports
- CCRIF Newsletters
- CCRIF: A Collection of Papers and Articles
- Stakeholder Briefs on Hurricanes and Earthquakes
- Press Releases

These publications are available on our website at www.ccrif.org. To receive copies of these publications or to be placed on our mailing list, please email pr@ccrif.org or info@ccrif.org.