

# CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY

# ANNUAL REPORT 2009-2010



# CCRIF Annual Report 2009-2010



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The Caribbean Catastrophe Risk Insurance Facility (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 was developed through funding from the Japanese Government, and was capitalised through contributions to a multi-donor Trust Fund by the Government of Canada, the European Union, the World Bank, the governments of the UK and France, the Caribbean Development Bank and the governments of Ireland and Bermuda, as well as through membership fees paid by participating governments. Sixteen governments are currently members of the fund: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago and Turks & Caicos Islands.

CCRIF website: [www.ccrif.org](http://www.ccrif.org)

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# List of Acronyms

AOSIS	Alliance of Small Island States
BELCO	Bermuda Electric Company
CaribRM	Caribbean Risk Managers Ltd.
CARICOM	Caribbean Community
CARILEC	Caribbean Electrical Utility Services Corporation
CCCCC	Caribbean Community Climate Change Centre
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDB	Caribbean Development Bank
CDEMA	Caribbean Disaster Emergency Management Agency
CDERA	Caribbean Disaster Emergency Response Agency
CDM	Comprehensive Disaster Management
CIMH	Caribbean Institute for Meteorology and Hydrology
DFID	Department for International Development
DRM	Disaster Risk Management
DRRC	Disaster Risk Reduction Centre
ECA	Economics of Climate Adaptation
HLEM	Hazard and Loss Estimation Model
IDP	International Development Partners
KAC	Kinetic Analysis Corporation
MoU	Memorandum of Understanding
NGO	Non-governmental organisation
NHC	National Hurricane Center
NOAA	National Oceanic and Atmospheric Administration
PAHO	Pan American Health Organization
PDS	Professional Development Session
RAA	Reinsurance Association of America
RECC	Review of the Economics of Climate Change

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RTFS	Real-Time Forecasting System
TA	Technical Assistance
TAOS	The Arbiter of Storms
UNDESA	United Nations Department of Economic and Social Affairs
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USGS	United States Geological Survey
UWI	University of the West Indies

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## 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.**

## 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.**

## CCRIF Products

**CCRIF offers parametric insurance products that provide coverage for hurricane and earthquakes and will be offering coverage for excess rainfall by the end of 2010.**

## CCRIF Customer Values

The clients of the not-for-profit CCRIF are the member countries of the Caribbean Community. CCRIF promises its clients to:

1. Fill a gap in available insurance offerings for natural catastrophes
2. Ensure a joint reserve mechanism for future benefits
3. Provide member countries confidence in its ability to provide financial support
4. Supply tools and strategies for enhanced disaster risk management
5. Provide the highest degree of service at the best possible price
6. Ensure speedy payouts
7. Meet best standards in transparency and accountability
8. Effectively communicate with members and stakeholders

## CCRIF's Strategic Objectives

CCRIF's strategic objectives are designed to enable the Facility to fulfil its mission and realise its vision. These strategic objectives allow CCRIF to continuously align the Facility's priorities and link products, programmes, key activities and operations to performance measures and customer values. Over the period 2009 to 2012, CCRIF's strategic objectives are:

To offer products and services responsive to members and stakeholders needs

To raise the profile of CCRIF as a Caribbean Community entity

To support disaster risk management

To expand coverage and membership

To achieve sustainable financial integrity

To create a governance framework built on transparency and accountability principles

## Board of Directors



### **Milo Pearson, Chairman of the Board**

Milo Pearson has over 35 years of insurance experience and has created two landmark organisations that have had an important and lasting impact on the insurance industry in California: the California Earthquake Authority and the Rate Regulation Division of the California Department of Insurance. As a senior partner of Insurance Solutions Group, Pearson specialises in regulatory and catastrophe-related issues. He is also the Executive Director for the Pacific Association of Domestic Insurance Companies, an industry trade association.



### **Isaac Anthony, CARICOM appointed board member, representing participating countries**

Chairman and founding member of the Caribbean Public Finance Association (CAPFA), Isaac Anthony currently serves as a CCRIF board member appointed by CARICOM. A former Accountant General and Registrar of Insurance, he is presently the Permanent Secretary/Director of Finance in the Ministry of Finance, Economic Affairs & National Development in Saint Lucia. With a BSc. in Economics and Accounting and an Executive MBA from the University of the West Indies, Anthony also serves on the Boards of a number of national and regional organisations including the Caribbean Development Bank and the Eastern Caribbean Development Bank.



### **Dr. Warren Smith, Caribbean Development Bank appointed board member, representing donors**

Appointed to the CCRIF Board by the Caribbean Development Bank (CDB), Dr. Warren Smith has more than 30 years experience in Economics and Planning and holds a BA (Hon.) in Economics, a M.Sc. in Agricultural Economics and a PhD in Economics from Cornell University. Currently, he is the Director of Finance and Corporate Planning at the CDB. He has held positions at the National Investment Bank of Jamaica, Prudential Stockbrokers Limited, Life of Jamaica, LIAT and the Petroleum Corporation of Jamaica.



### **Garry Wilkins, Caribbean Development Bank appointed board member, finance/regulatory specialist**

Garry Wilkins lends to the CCRIF Board his experience as a retired banker with over 40 years experience with executive positions in a variety of countries around the world. He was employed by the Barclays Bank Group for 31 years, has worked with a number of advisory bodies on fraud and money laundering prevention and was employed by Cayman National Corporation as their Group Internal Auditor. Since his retirement, he has provided independent directorships for a number of banks, funds and other financial institutions. He is an Associate of the Chartered Institute of Bankers (ACIB) London. He retired from the CCRIF board in September 2010.



### **Ken Blakeley, CARICOM appointed board member, insurance specialist**

A former president of both the Insurance Company of the West Indies (ICWI) and Eagle Star Insurance Company of Puerto Rico, Ken Blakeley has had a long tenure in Caribbean insurance. His 40-year career in the region's insurance market began with a stint as a resident inspector in Trinidad & Tobago leading him to positions as a Managing Director, Agency Manager and now, as a technical adviser and director at Billy Craig Insurance Brokers in Jamaica. Blakeley has also served as the deputy chairman, Jamaica Association of General Insurance Companies, chairman of the Board of Studies for the Insurance Institute of Jamaica and as chairman of the Insurance Institute of Jamaica.



### **Desiree Cherebin, Caribbean Development Bank appointed board member, finance specialist**

Newly appointed board member of CCRIF in September 2010, Desiree Cherebin is a banking supervision and financial services consultant working with regional and international agencies, including the Caribbean Regional Technical Assistance Centre and the International Monetary Fund to assist countries with strengthening the regulation and supervision of their financial sectors. Prior to her retirement in 1997, she was Director of Bank Supervision at the Central Bank of Barbados. She also worked as an Economist with the Ministry of Trade in Barbados and as an Adviser to the Governor of the Central Bank of Barbados.

## The CCRIF Team



### Caribbean Risk Managers Ltd, Facility Supervisor

Caribbean Risk Managers Limited (CaribRM) was formed through the merger of GeoSY (a consultancy company led by Dr. Simon Young) and the risk management arm of the CGM Gallagher Group. As Facility Supervisor, CaribRM is responsible for leading the operational and risk management functions within CCRIF. CaribRM has completed projects for clients in both the public and private sectors throughout the Caribbean. CaribRM is headed by Simon Young who is supported by Martin Goddard, Ekhosuehi Iyahun and the rest of the CaribRM technical team. CaribRM has offices in Barbados, Jamaica and Washington D.C.



### Sagicor Insurance Managers Ltd, Insurance Manager

Sagicor Insurance Managers Ltd (SIM) is a member of the Sagicor Financial Group, which is listed on the Barbados, Trinidad & Tobago and London Stock Exchanges. Formed originally as Barbados Mutual in 1840, Sagicor has become the leading indigenous financial services organisation in the Caribbean, with a presence in 21 countries across the Caribbean, the United Kingdom, in 41 states of the United States and the District of Columbia. SIM provides insurance management services in the Cayman Islands, and provides regulatory, accounting and corporate secretarial support to CCRIF. James Rawcliffe is Sagicor's appointee to CCRIF.



### London & Capital Ltd, Asset Manager

London & Capital is a specialist asset management company. With more than 20 years' expertise and experience, the company focuses on capital preservation and wealth management. William Dalziel is London and Capital Limited's team leader for CCRIF.



### EFG Bank – Cayman Branch, Asset Manager

EFG Bank – Cayman Branch is the Cayman private banking subsidiary of EFG International. Headquartered in Zurich, EFG has its main operating hub in Geneva, with an international network spanning Europe, the Middle East, Asia Pacific and Latin America. Simon Cawdery and Barlo MacLean are EFG Bank's CCRIF representatives based in Cayman.



### Aon Benfield Group, Reinsurance Broker

Aon Benfield is the premier reinsurance intermediary and capital advisor. Formed through the December 2008 merger between Aon Re Global and Benfield, it offers clients access to every traditional and alternative market in the world, through an international network of offices spanning 50 countries and more than 4,000 professionals. Clients of all sizes and in all locations are able to access the broadest portfolio of integrated capital solutions and services, world-class talent, and unparalleled global reach and local expertise, to best meet the objectives of their business.



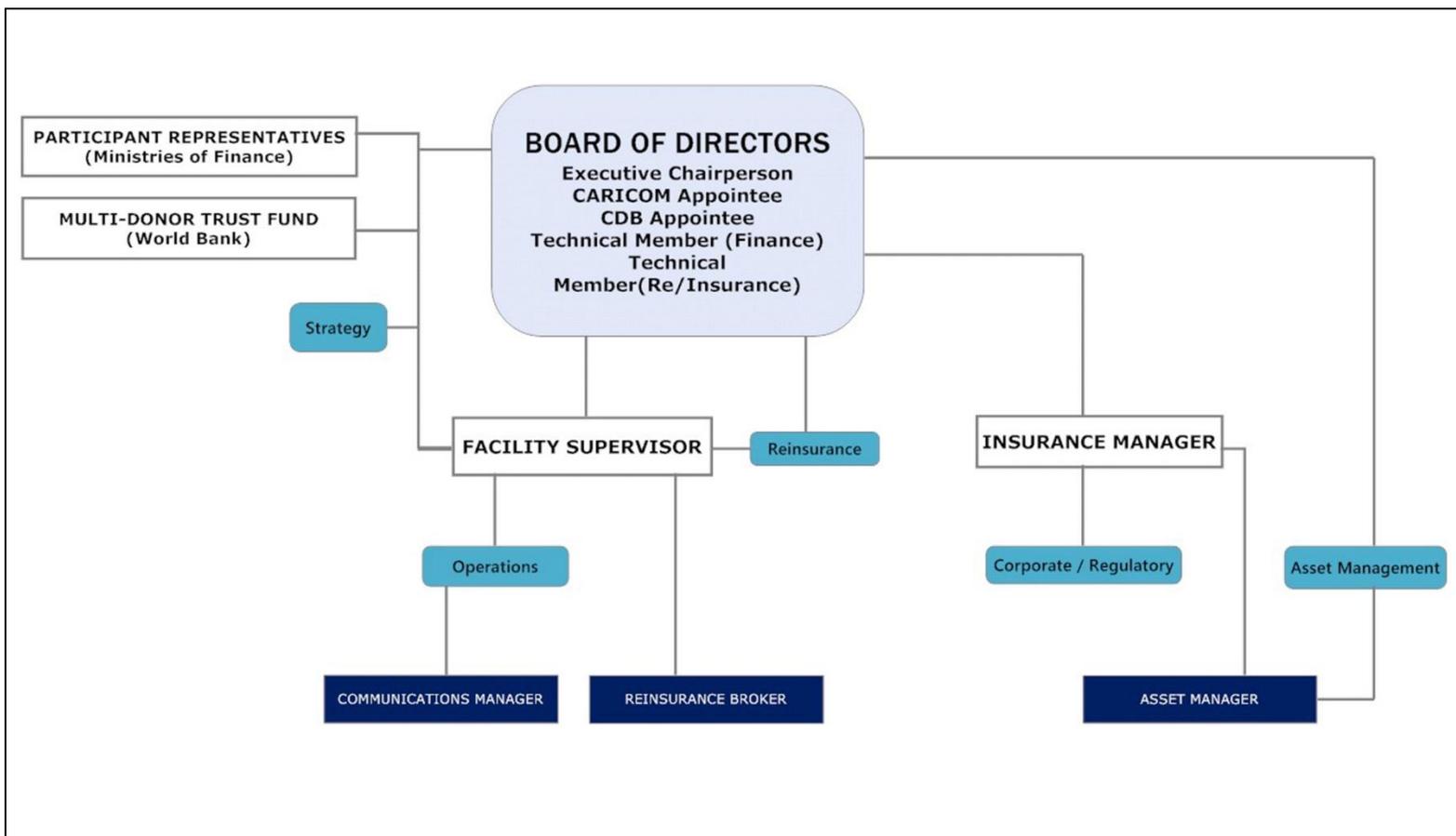
### Sustainability Managers, Communications Manager

Sustainability Managers, a consultancy company based in Jamaica is a multi-disciplinary team of professionals that offers a range of services to public and private sector entities as well as international and regional organisations. As Communications Manager, Sustainability Managers provides CCRIF with the following services: publications development; events planning; public relations and media relations management; advertising management; strategic planning; and training & facilitation. Elizabeth Emanuel and Gina Sanguinetti are Sustainability Managers' team leaders for CCRIF.

## CCRIF Organisational Structure

CCRIF's operations are laid out in an Operations Manual and are executed by six service-provider companies:

- Facility Supervisor
- Insurance Manager
- Reinsurance Broker
- Asset Manager (there are two asset management companies)
- Communications Manager



# Chairman's Report

On behalf of the Board of Directors and team of the Caribbean Catastrophe Risk Insurance Facility (CCRIF), I am pleased to provide you with our third Annual Report, which provides details of our operations and presents our audited financial statements for the year ending May 31 2010.

Today, CCRIF remains the world's first and only multi-national catastrophe fund, offering unique parametric hurricane and earthquake coverage to 16 participating governments in the Caribbean Region. All sixteen of our members renewed their coverage for the 2009 – 2010 fiscal year, continuing to demonstrate their continued commitment to mitigate the financial consequences of natural catastrophes and for integrating these parametric insurance policies with their other efforts in disaster risk reduction.

While the impact of hurricanes on the region was minimal during 2009/10, the occurrence of a 7.0 magnitude earthquake on January 12, 2010 in Haiti was a devastating event which triggered Haiti's full policy limit with CCRIF. Less than 24 hours after the earthquake occurred, CCRIF was able to determine that the full payout would be effected and a total of US\$7,753,579 was transferred to the Haitian Government 14 days later following the waiting period during which the specific

calculations were verified – which demonstrates the efficiency with which parametric insurance facilities work. This amount represented the full amount due to Haiti based on its catastrophe insurance coverage policy for earthquakes as part of the country's disaster risk management strategy and was approximately 20 times the annual premium of US\$385,500.

## Highlights of the Fiscal Year 2009 - 2010

This year was a very busy one for CCRIF. Using our Strategic Plan and objectives as our guide to focus our efforts on a number of key areas intended to benefit our members, we began implementation of a range of programmes and projects, engaged in key policy developments towards expanding our product offerings and continued our thrust towards creating strategic alliances with key Caribbean entities.

I am particularly pleased that we were able to launch the foundation for expanding our products and services to Caribbean governments as part of our role in comprehensive disaster management. This was evidenced by the launch of the regional rainfall model on one hand as well as the development of the CCRIF Second Generation Hazard and Loss Estimation Model on the other hand. The launch of our Technical Assistance Programme signalled

our commitment to continuously offer products and services responsive to our members and stakeholders needs. The Technical Assistance Programme will enable us to better serve the region in building capacity for disaster risk management activities by enhancing existing mechanisms, institutions, tools and capacities.

Following the Haiti earthquake, we began work with the Caribbean Institute for Hydrology and Meteorology (CIMH) to extend support to Haiti in its long-term recovery and reconstruction efforts, particularly in hazard mitigation and future disaster prevention. CCRIF supported CIMH to provide tools to help planners and relief workers in Haiti to make better decisions about where to re-settle people and re-build infrastructure to minimise their exposure to flooding and landslides, especially in light of the 2010 Hurricane Season.

Earlier in the year CCRIF received a review of its operations, undertaken on behalf of donors by the World Bank. Whilst it was a positive review, as an organisation governed by the principles of continuous improvement, we positioned ourselves to implement many of the recommendations presented therein. One such recommendation centred on the need to communicate more effectively with our members and stakeholders and provide more information on the operations of the Facility. To this end, CCRIF developed its first communications strategy and began

immediately finding innovative ways of bringing information to members, donors and other stakeholders. Over the year we produced over 15 publications, which we disseminated in hard copy and via email to hundreds of individuals and organisations across the world and posted on our newly designed website which now offers easier navigation.

As in previous years, CCRIF continued to grow, manage and invest its capital conservatively. Currently, CCRIF can comfortably pay losses for a 1 in 1,000-year series of catastrophe events. The Facility also reduced rates to member countries by 10% for the second year in a row – this is reflective of our very strong financial position. Aligned to our financial management is the issue of governance and for CCRIF this is extremely important as we believe that we must continuously be fully accountable to our members and supporting donors. As such, we continued to integrate at all levels of our decision-making and business planning the concepts of transparency and accountability for sustainable development. In so doing we effectively engage in providing quarterly reports as well as other types of programmatic reports that measure our performance against our strategic objectives.

CCRIF will, through its capacity building and collaborative relationships with regional organisations, continue to help our members to become more proactive in their disaster risk management. We view

our work in the region as a prime opportunity for strengthening disaster risk management strategies as a part of our

corporate social responsibility – ultimately contributing to the sustainable prosperity of Caribbean nations.



**Milo Pearson**  
Chairman, CCRIF



# Facility Supervisor's Report

All 16 member countries renewed their policies with CCRIF for the 2009 – 2010 policy year. Although premium income was marginally down from the previous year, CCRIF offered its members a further 10% reduction in premium costs. Most countries took advantage of this incentive by increasing their coverage levels for hurricanes, earthquakes or both for the same premium as the previous year. The Caribbean Development Bank (CDB) also joined the World Bank in providing premium support, through loan facilities for countries as they faced budgetary constraints due to the prevailing economic climate.

The 2009 Tropical Atlantic Hurricane Season was a below-average year with a total of eleven Tropical Depressions of which nine formed into Tropical Storms, three became Hurricanes and two became Major Hurricanes. None of these events had any significant impact on any CCRIF member country.

Although the impact of hurricanes on the region was minimal, the occurrence of a 7.0 magnitude earthquake on 12 January 2010 in Haiti was a devastating event which triggered Haiti's full earthquake policy with CCRIF. This earthquake was the primary event of the 2009-2010 policy year and served as a stark reminder to other countries of the risks earthquake events can pose.

Within hours of the earthquake occurring in Haiti, CCRIF was able to announce that, based on initial earthquake magnitude/location estimates, a payment would be triggered. Haiti received US\$7,753,579 fourteen days after the earthquake (the required waiting period during which the specific calculations were verified) from CCRIF. This represented approximately 20 times their premium for earthquake coverage of US\$385,500 and was also the first set of direct funds received by the Government of Haiti inclusive of all regional and international assistance pledged.

The performance of CCRIF in light of this event in Haiti again validated the utility of the mechanism in providing countries with much needed liquidity after the occurrence of a catastrophe event. CCRIFs involvement in Haiti also expanded beyond its core mandate of the provision of liquidity, to engaging in institutional partnerships with regional and international agencies to provide key tools and data to guide actionable interventions both in the short term as well as in the long term recovery and redevelopment process.

For the 2009 – 2010 policy year, apart from undertaking a number of internal processes to further refine the execution of its core mandate, the Facility also sought to further engage and build awareness of CCRIF within the wider stakeholder community. This involved increasing the level of public

awareness activities of the Facility, engaging in enhanced institutional collaborations as well as developing a Technical Assistance Programme aimed at deepening the understanding of natural hazards and catastrophe risk within the region and also the potential impacts of climate change on Caribbean countries.

Memoranda of Understanding were signed with regional agencies including the Caribbean Disaster Emergency Management Agency (CDEMA), and the United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC) and continued support was provided to the Caribbean Institute for Meteorology and Hydrology (CIMH) under the existing MoU between both institutions. A major collaborative achievement between CCRIF and the CIMH was the launch of a regional rainfall model in Barbados. The rainfall model uses a global meteorological database (to which regional agencies provide data) to generate rainfall totals at high resolution across the entire Caribbean four times per day. This data is available via CIMH in near real-time, along with a 60-year historical rainfall database derived from the same model. This synthetic rainfall generation model will enable the finalisation of the excess rainfall product thereby enabling the provision of excess rainfall insurance policies for countries in the region in the near future. This development is important given CCRIF's continued aim of finding solutions that will enable its members to continue to

pursue diversified and dynamic disaster risk management policies.

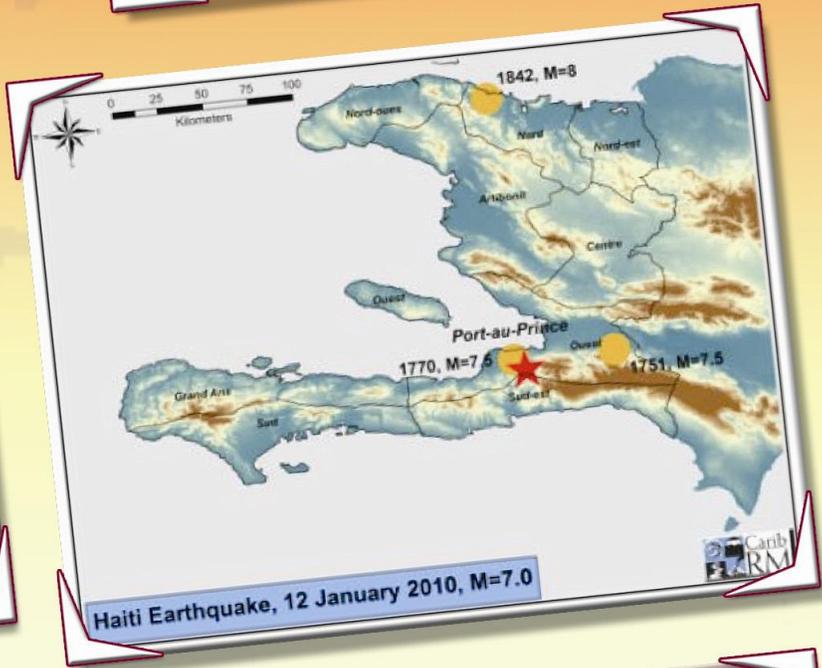
Under the umbrella of the Technical Assistance Programme CCRIF also commissioned an Economics of Climate Adaptation (ECA) study. The aim of this initiative is to contribute towards the development of an enhanced database of quantitative information to enable countries in the region to develop fact-based adaptation strategies that can be incorporated into national development plans to increase resilience against climate hazards. Additionally, the results of this study can be used by governments in multi-lateral and bilateral funding discussions. Given the current and future financial situation of many developed and developing countries, access to funding will be enhanced by a country's ability to support effective business cases with sound quantitative data and this study provides a relevant toolkit to aid Caribbean countries to do this.

CCRIF's performance over the 2009 – 2010 policy year highlights the critical role of the Facility in providing its member countries with access to liquidity after a catastrophe event occurs. It is clear that 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 to one part of the larger comprehensive

disaster management (CDM) process and will continue to support other aspects of CDM in the region in partnership with both international and regional institutions and its member Governments. CCRIF will

therefore continue to lend its technical expertise towards supporting these initiatives in order to further heighten the resilience of the region to natural hazards.





# CCRIF

CARIBBEAN CATASTROPHE  
RISK INSURANCE FACILITY

## YEAR IN REVIEW

# Tropical Cyclone and Earthquake Review

CCRIF monitors and reports upon all tropical cyclone and earthquake activity in the Caribbean Basin that has the potential to affect one or more of its member countries. Two types of events are defined and routinely reported by CCRIF to its members and stakeholders – non-triggering and triggering events (see text box).

## Caribbean Catastrophe Events

### Hurricanes

The 2009 Tropical Atlantic Hurricane Season was a below-average year compared to the 2008 season which was recorded as the fourth most severe hurricane season and the only year in which there was hurricane activity in each month from July through to November. There were a total of eleven Tropical Depressions of which nine formed into Tropical Storms, three became Hurricanes and two became Major Hurricanes (Category 3 and above) in the 2009 hurricane season. None of these events had any significant impact on any CCRIF member country. Although Hurricane Bill, the 2<sup>nd</sup> named storm of the season did not make landfall on any CCRIF member country, some members such as Bermuda were exposed to its effects. This event will be further reviewed below.

### Earthquakes

Although the impact of hurricanes on the region was minimal, the occurrence of a 7.0 magnitude earthquake on 12 January 2010 in Haiti was a devastating event which triggered Haiti's full policy with CCRIF. Whilst seven earthquake events reached the CCRIF reportable criteria between 1 June 2008 and 31 May 2009, the earthquake in Haiti was the primary event of the 2009-2010 policy year. The Haiti earthquake along with one soon

### Triggering Event

**Tropical Cyclone:** Any Tropical Cyclone event which produces an index value of greater than zero in one or more countries.

**Earthquake:** Any earthquake event which produces an index value of greater than zero in one or more countries.

Triggering events are summarised in specific CCRIF Event Briefings for each hazard event that occurs, which are circulated to all stakeholders and which are available on the CCRIF web site – [www.ccrif.org](http://www.ccrif.org)

### Non - Triggering Event

**Tropical Cyclone:** Any named Tropical Cyclone event which moves within 230 km of any measuring point of any CCRIF member but does not generate an index value of greater than zero.

**Earthquake:** Any earthquake event with a body-wave magnitude of greater than 5.7 within a box bounded by the following - Latitude 2° and 41° N Longitude 97° and 51° W but does not generate an index value of greater than zero. These geographical areas are shown in Figure 1.

Non-triggering events are summarised in the CCRIF Quarterly Report, which is circulated to all stakeholders and which is available on the CCRIF web site.

afterwards in the Cayman Islands and the aftershocks in Haiti will be further reviewed below.

## Review of Tropical Cyclone Events

Because damage to a particular territory from a named storm is strongly dependent on the distance between the storm and the territory, it is not only the intensity of a storm that is important but its exact path across or past each particular CCRIF member country. For example, a land-falling Category 1 storm in most cases will do more damage than a Category 5 storm 100 miles away. For the 2009 - 2010 policy year, only one hurricane had a notable impact on a CCRIF member state. This is Hurricane Bill and it will be reviewed in detail below.

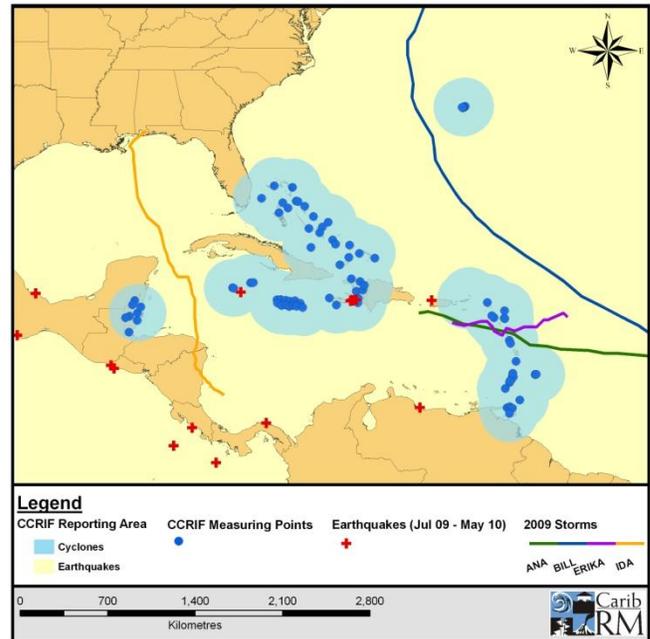


Figure 1: CCRIF reportable tropical cyclone events, 1 June 2009 – 31 May 2010

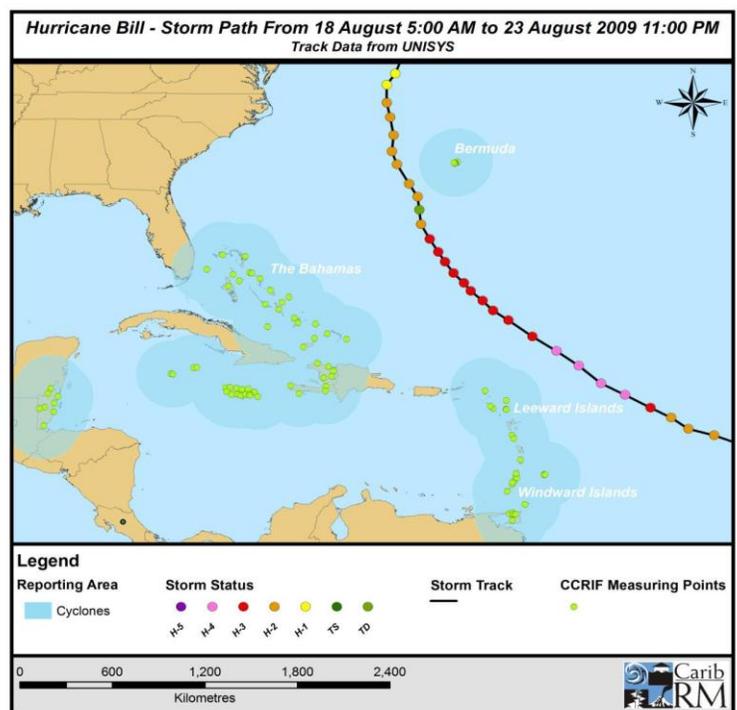
Source: Track data from NOAA-NHC, earthquake locations from USGS

## Hurricane Bill

Hurricane Bill was the second named system and first hurricane of the 2009 Atlantic Hurricane Season. Bill became a classic Cape Verde Hurricane on 17 August and quickly became a Category 4 Hurricane two days later (Figure 2).

Hurricane Bill was a Category 4 storm when it was positioned east of the Leeward Islands. Although none of the islands were directly hit by Bill, they did experience heavy rainfall (see Figure 3) and fairly large sea swells as a result of its proximity.

Figure 2: Hurricane Bill – Track through the Caribbean  
Source: Track data from NOAA-NHC

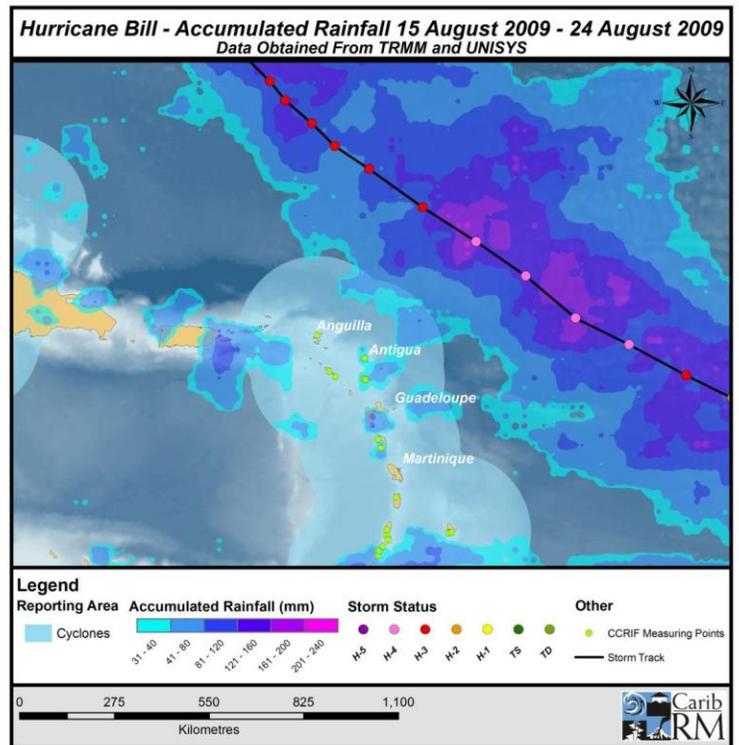


## Impact of Hurricane Bill on Bermuda

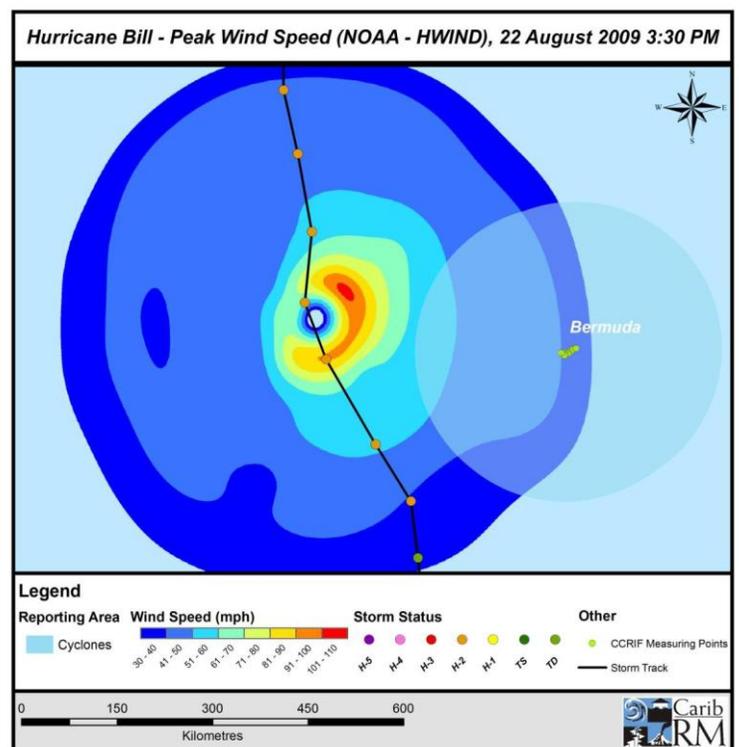
Of the 16 CCRIF members, Bermuda was the most exposed island to Hurricane Bill. However by the time Bill reached its closest proximity to Bermuda, at 290 km west-south-west of the island, it had lost most of its energy and had been downgraded to a Category 2 hurricane. Bermuda was therefore affected by winds ranging between 30 to 50 mph and was thus spared the full brunt of the Hurricane (see Figure 4).

There were no reports of major damage or casualties, although the Bermuda Electric Company (BELCO) indicated that 3,700 properties had lost access to power as a result of the passage of the hurricane. Electrical power was however restored to all residents by the following day. Most of the outages were reportedly caused by debris falling onto power lines and winds blowing out switches rather than any downed power lines. The Bermuda Weather Service reported incidents of flooding on the roads along the northern coast and observation of waves up to 30 to 35 feet outside several reefs surrounding the island. Major swells up to 15 feet were also reported along the south shore and several beaches showed evidence of sand erosion as a result of the powerful high energy waves.

**Figure 4: Hurricane Bill, wind speed affecting Bermuda, 22 August 2009.**  
Source: NOAA-HWIND.



**Figure 3: Hurricane Bill, accumulated rainfall 15 -24 August 2009.**  
Source: TRMM and NOAA-NHC



## Review of Earthquake Events

### 12 January 2010, Haiti Earthquake

A major earthquake struck the southern part of Haiti in the late afternoon of 12 January 2010. The United States Geological Survey (USGS) indicated that the quake was a Magnitude 7.0 event at 13km depth just 25km west-southwest of Port-au-Prince (see Figure 5). The earthquake shaking was felt in the Dominican Republic, Cuba and Jamaica, although no damage was reported outside of Haiti. The earthquake occurred within the Enriquillo-Plantain Gardens Fault Zone\*, which runs east-west along Haiti's southwest peninsula. Although smaller earthquakes are relatively common in Haiti, the last major earthquake to affect the country was in 1842 (devastating Cap Haïtien in the north).

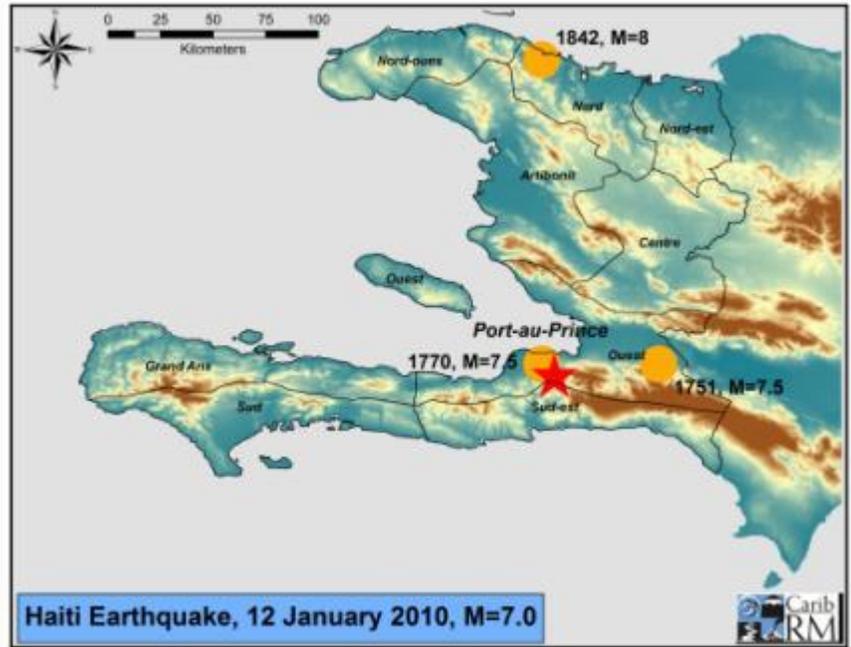


Figure 5: Location of 12 January earthquake

The earthquake was of sufficient magnitude to trigger the full policy limit for Haiti's earthquake coverage, effecting payment of US\$7,753,579 after the usual 14-day waiting period. Although shaking was felt in Jamaica, another CCRIF-covered country, it was insufficient to generate any

loss as indicated by the CCRIF parametric index.

\*A study conducted by Eric Calais, a professor of geophysics at Purdue University has since shown that the earthquake was unleashed by the rupture of a previously undetected fault line and not the main strand of the Enriquillo Fault itself.

### 20 January, Haiti Aftershocks

Haiti continued to be affected by aftershocks for many weeks (up to early March) in the aftermath of the 12 January earthquake. The largest was a Magnitude 5.9 event which occurred on 20 January. The location of the aftershock was 18.425°N, 72.805°W with a depth of 10 km

(6.2 miles) and located 50 km (30 miles) WSW of Port-au-Prince and about 30 km west of the main 12 January epicentre. Although the Magnitude 5.9 event was strongly felt and resulted in further losses in Haiti, it did not trigger a payment from CCRIF since it was classified as a smaller

aftershock occurring within 25 days of the main earthquake and the payout received by Haiti for the main event was equal to

their annual aggregate coverage limit for earthquakes.



### Impact of Earthquake on Haiti

The Haitian Government reported that the devastating January 12 earthquake affected as many as three million people, killed an estimated 230,000 people, injured about 300,000 and caused 1,000,000 to become homeless. The Government also estimated that 250,000 residences and 30,000 commercial buildings collapsed or were severely damaged.

Whilst the earthquake caused major damage in Port-au-Prince, other areas such as Léogâne, west of Port-au-Prince, Jacmel and other settlements in the region also were severely affected. Many notable landmark buildings and public buildings were significantly damaged or destroyed, including the Presidential Palace, the

Palace of Justice, the National Assembly building, the Port-au-Prince Cathedral, and the main jail (the Prison Civile de Port-au-Prince) which caused the escape of about 4,000 inmates. It was reported that in Léogâne about 90% of the town's buildings were destroyed. Infrastructure also was severely affected. These included hospitals in the capital, air, sea, and land transport facilities; and communication systems - all of which were critical components of their disaster response mechanism.

Damage also was evident at the control tower at Toussaint L'Ouverture International Airport as well as the Port-au-Prince seaport, which rendered the harbour unusable for immediate rescue operations.

Roads were blocked with road debris or their surfaces broken.

It terms of the education system, it was reported that about half the nation's schools and the three main universities in Port-au-Prince were severely affected.



The Presidential Palace before and after the earthquake

### 19 January, Cayman Islands Earthquake

On 19 January 2010, a magnitude 5.9 earthquake struck the Cayman Islands region. According to the USGS, the epicentre of the event was at 19.020°N, 80.779°W with a depth of 10 km (6.2 miles) - 70 km (45 miles) ESE of George Town, Grand Cayman (see Figure 6). Although this event was felt widely across the islands, it produced an index value of zero (indicating that CCRIF's parametric models estimated that no damage or losses to government would occur from this event), and hence a payment was not triggered. This result was supported by on-the-ground information which indicated minimal damage.

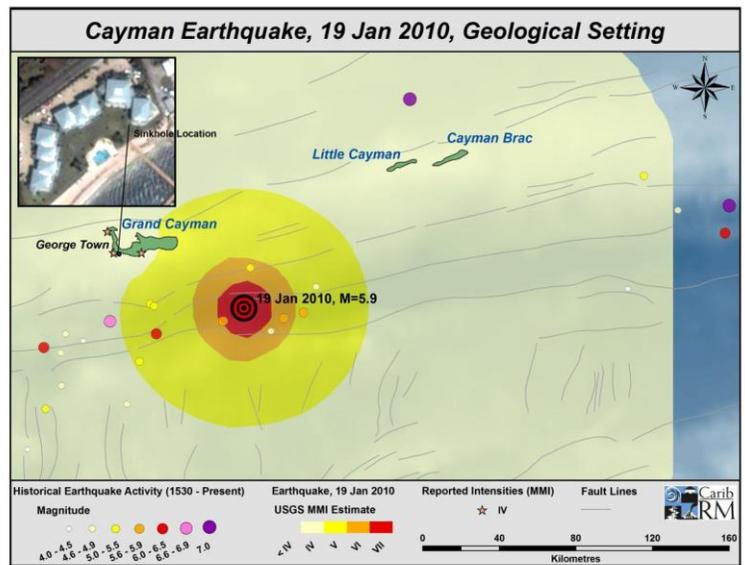


Figure 6: Location of 19 January earthquake

## CCRIF Policy Developments

CCRIF's policy developments in any given year are underpinned by the Facility's strategic focus. The Facility's policy developments in this period reflect its thrust to continue to be innovative and develop sustainable products and services to meet the needs of Caribbean governments in an effort to enhance their disaster risk response capabilities. For this 2009 - 10 year CCRIF's policy developments centred around four main areas as follows:

- Regional Rainfall Model and Excess Rainfall Product
- Second Generation Hazard and Loss Estimation Model
- Real -Time Forecasting System
- Electric Power Distribution Systems

The progress on each of these developments will be described below.

### Regional Rainfall Model and Excess Rainfall Product

On 25 February, CCRIF and the Caribbean Institute for Meteorology and Hydrology (CIMH) launched a rainfall model for use in the Caribbean region. The model provides the basis for a new excess rainfall product that CCRIF will offer by late 2010. The model provides a regional tool which can be used to help manage the risks brought by extreme rainfall events, as well as drought events, which a number of CARICOM countries experience.

The primary model output will be a map of aggregate rainfall for the Caribbean region, produced every six hours, and made available to the region via a web-based interface. CIMH houses, operates and maintains the model and manages the dispersal of its outputs to the region. This real-time synthetic rainfall database

represents the first uniform rainfall data set in the region and, possibly, in the world.

The rainfall model which will underpin excess rainfall policies will be run independently by CIMH and became fully operational in February. It is a public good and will provide a 6-hourly rainfall accumulation map at high resolution for the entire Caribbean Basin based on Global Forecast System initialisation data and run with topographic enhancements. The model focuses primarily on quantifying rainfall at high resolution for extreme events. The model was developed for CCRIF by Kinetic Analysis Corporation (KAC) in collaboration with CIMH and CaribRM, and is operated 24/7 by CIMH.

Equally important is the 60 years of historical rainfall data which is being

generated using the same model. So not only will the amount of rainfall across the region be mapped in real time at a constant and high resolution, but there will also be a 60-year context in which to place the current rainfall.

In addition to its direct use by CCRIF to underpin parametric excess rainfall coverage, the rainfall data can and will be used as a basis for other parametric insurance solutions, particularly in the

agriculture sector. It will be invaluable in analysing the impacts of past rainfall (and drought) events and in providing a baseline for projecting the likely changes in rainfall patterns due to climate change.

To launch its efforts in this area, CCRIF, in collaboration with CIMH, hosted a 1-day workshop on the day of the launch of the model for over 50 participants from across the region.



## Second Generation Hazard and Loss Estimation Model

Work towards the development of the Second Generation Hazard and Loss Estimation Model (HLEM) was completed during the year. The use of this new model will enable the Facility to be better able to meet the catastrophe insurance needs of its members, offer additional products beyond hurricane and earthquake coverage, and expand beyond the present number of clients.

Another benefit of the new model is a reduction in the basis risk inherent in the loss indexing approach used in the first generation model. An added benefit is that the Second Generation HLEM utilises the same hazard modelling base as the Real-Time Forecasting System (RTFS).

The modelling basis for the 2010-11 policies will be changed to the CCRIF Second Generation Hazard and Loss Modelling platform. The development of the CCRIF Second Generation Hazard Loss Estimation Model coupled with the development of the excess rainfall model will facilitate the development of specialist products for risk management in both the public and private sectors.

This initiative also supports CCRIF's quest to provide a more open environment to assist Caribbean institutions such as the University of the West Indies (UWI) in developing a regional hazard and risk assessment and mapping capability in support of improved natural hazard risk management in the region.

### Key Strengths of the Second Generation Hazard and Loss Estimation Model

- Built on strong, validated hazard modelling base at a 500m grid cell resolution
- The same techniques/code are used for historical hazard/loss modelling and real-time event modelling/payout calculation
- It is implemented using open modelling techniques from published scientific literature
- It is highly scalable and can be applied at a wide range of modelling resolutions
- It is implemented on a geographic base, enabling map outputs
- It better models Caribbean realities and includes oceanographic features such as storm surge in the hurricane model – which means that the hurricane model is no longer based solely on wind characteristics

## Real Time Forecasting System (RTFS)

The Kinetic Analysis Corporation (KAC) RTFS product was again made available to CCRIF members for the 2009 – 2010 policy year. Launched before the 2010 Hurricane Season, the 2010 RTFS product is substantially similar to the 2009 product, apart from several internal processing improvements which make the product more robust. One significant addition is the introduction of site-specific features for Haiti, to support the ongoing management of displaced populations.

The RTFS enables all active members of CCRIF to access real-time estimates of the expected hazard levels and impacts on

population for all tropical cyclones during the Hurricane Season. This real-time service provides enhanced value to participants through improving their understanding of hurricane risks and also through providing valuable real-time information to both emergency managers and finance/economy officials.

This type of information is useful in informing contingency planning and emergency management and intervention activities.

## Electric Power Distribution Systems

In June 2009, the CCRIF Board approved the work plan for the development of a parametric product for overhead electrical transmission and distribution systems for Caribbean Electrical Utility Services Corporation (CARILEC) members. This initiative began when CCRIF was approached by CARILEC about developing a parametric solution for insuring transmission and distribution systems against catastrophic losses due to hurricanes.

Within the Caribbean, transmission and distributions systems are usually not insured due to the prohibitive costs in the open market, hence CCRIF's role in pooling these risks and providing affordable parametric coverage options.

The overall governance and operational concept was presented to the CARILEC Board late in 2009. Additionally, a business plan also was prepared and a legal review of the requirements for setting up the captive insurance company was completed. The development of the final model is under way, as CCRIF awaits final data sets from some utilities.

The CCRIF interest in this initiative is based on the recognition that Caribbean governments continue to hold equity interest in, or own, many of the CARILEC utilities and an awareness of the vital role that rapid repair of the electrical distributions system plays in post disaster recovery within Caribbean countries.

# Programmes, Projects and Partnerships

Under its strategic objective three “To support disaster risk management”, CCRIF is committed to supporting its members in the development and implementation of strategies for disaster risk management by building on existing mechanisms, institutions, tools and capacities. To meet this objective, CCRIF focused on three core areas over the period as follows:

- Design and implementation of programmes in collaboration with other regional organisations to strengthen Caribbean governments' disaster response and mitigation capacity
- Engagement in programmes and actions that were designed to develop institutional enabling environments and regional supporting mechanisms for knowledge sharing, scaling up good practices, capacity building and technology
- Development of strategic alliances through MoUs and other mechanisms with regional institutions to reduce the existing vulnerabilities in the small island states of the region

These areas were rolled into specific programmes and projects in collaboration with key partners, facilitating the development and strengthening of many strategic alliances. CCRIF's flagship programme – the Technical Assistance (TA) Programme – was approved by the CCRIF Board in December 2009 and aims to help Caribbean countries deepen their understanding of natural hazards and catastrophe risk, and the potential impacts of climate change on the region. A critical component of this programme is the development of regional capacity and knowledge bases to support the development of sound adaptation strategies and enhancement of regional climate change resilience through improved risk management. The technical assistance programme consists of three main components as follows:

- **Component 1:** Scholarship/ Professional Development Programme
- **Component 2:** Regional 'Strategic' Knowledge Building
- **Component 3:** Support for Local Disaster Risk Management (DRM) Initiatives



The scholarship programme or Component 1 of the TA Programme will support studies at the University of the West Indies (UWI) as well as at other regional or international universities, and will focus on enhancing regional capacity by providing funding to a number of students in selected bachelor's and master's programmes. This programme will include the following elements:

- Scholarships for disaster management master's programme at UWI-DRRC
- One or more other undergraduate scholarships for other UWI courses
- Several scholarships for bachelor's and master's courses overseas
- Support for professional development training courses and sessions at CIMH and through the annual CDEMA CDM conference

Component 2 - Regional 'strategic' knowledge-building will include projects within the following tracks:

- Support for development of training and implementation materials for Country Risk Officers in CARICOM member states
- Support for quantitative work on the economics of climate

adaptation in the Caribbean in partnership with regional institutions (UN-ECLAC and CCCCC). The aim of this initiative is to build a strong knowledge base for climate change adaptation and risk management decision-making

- Development and implementation of hazard data collection networks across the region
- 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
- Support for academic research projects by Caribbean and international institutions focussing on issues of regional interest in disaster risk management

Component 3 – Support for Local DRM Initiatives will focus on small disaster risk management projects and programmes being implemented at the community level and which can contribute to the fulfilment of the CCRIF mandate and the wider comprehensive disaster risk management agenda.

Under the umbrella of the Technical Assistance Programme, CCRIF began

implementation of a number of sub-projects. These included:

- Commissioning an Economics of Climate Adaptation (ECA) study
- Initiation of a Scholarship Programme with the University of the West Indies
- Funding opportunities in the area of climate science for CIMH staff
- Signing of a MoU with UN-ECLAC in the area of Strategic Knowledge Building
- Technical Assistance for the reconstruction of Haiti

Each of these will be described briefly below.



The signing of a Memorandum of Understanding between CCRIF and UN-ECLAC in February 2010 signalled the start of the roll out of the TA Programme. In photo at left, Milo Pearson, Chairman of CCRIF and Neil Pierre, then Director, Caribbean Sub-regional HQ of UN-ECLAC, shake hands after the signing of the MoU.

### **Economics of Climate Adaptation (ECA) Study**

On 26 February 2010 in Barbados, CCRIF hosted a workshop to launch the CCRIF implementation of the Economics of Climate Adaptation (ECA) methodology in the Caribbean. Drawing upon the regional and international expertise of the Caribbean Community Climate Change Centre (CCCCC) and UN-ECLAC, this project will produce a quantitative knowledge base for key climate change risks and adaptation strategies for decision making across the region, building on and

contributing to the Review of the Economics of Climate Change (RECC) process.

The development of this quantitative base will be a key factor in providing valuable information to decision makers about the optimal use of limited resources for adaptation. To further customise the ECA methodology and to expand the institutional capacity of CCRIF, this study also will explore how to integrate the second generation model into the risk

assessment component of future CCRIF analyses based on the ECA methodology. As an added benefit, studies such as these are also critical in targeting adaptation funding and attracting investment for climate-resilient development.

Once the project was launched, a team composed of Caribbean Risk Managers on behalf of CCRIF, the Caribbean Community Climate Change Centre and other regional partners, was intensely involved in data collection and analysis for eight countries in the Region with analytical support provided by McKinsey & Company and Swiss Re. These countries were:

- Anguilla
- Antigua and Barbuda
- Barbados
- Bermuda
- Cayman Islands
- Dominica
- Jamaica
- St. Lucia

By May 2010, CCRIF was able to host a workshop to present the preliminary results of the study in Barbados in which 52 representatives from Caribbean and international agencies participated. The workshop provided an introduction to the Economics of Climate Adaptation approach

and its application in the Caribbean and focused on sharing the findings of the study, examining the key insights and results for wind, sea level rise/coastal flooding, inland flooding and salinisation of groundwater.

The final outputs of this study will include a risk baseline which will provide transparency about current and future expected losses from climate risks under three climate change scenarios; and assessment of adaptation measures – identification of feasible and applicable measures to adapt to the expected risks based on quantitative analysis of total cost and expected benefits of risk mitigation and transfer measures.

The full results of the study, which will be published by the end of 2010, will assist decision makers throughout the Caribbean region in defining and developing sound adaptation strategies and business cases which can be incorporated into national development plans. The Climate Change Conference in Copenhagen in December 2009 reconfirmed the commitment to provide funding and technical assistance for climate adaptation to developing countries. The ECA study will help Caribbean leaders develop programmes that will be strong candidates for adaptation assistance.

## Scholarship Programme with the University of the West Indies

Through its TA Programme, CCRIF initiated a scholarship programme with the University of the West Indies in March 2010. The scholarship programme will be made available in the next academic year - 2010/11. The scope of funding for this programme is as follows:

- Three scholarships for the two-year disaster management MPhil. and/or the one-year MSc starting in September 2010
- Two scholarships for students entering their second of three years in Geography/Geology (Mona Campus, Jamaica) and Civil with Environmental Engineering (St.

Augustine Campus, Trinidad) - starting in September 2010, one scholarship for each of the programmes

- Scholarship coverage for the same students selected in (ii) above in their third year, subject to satisfactory performance in their second year.

CCRIF will provide UWI with up to US\$49,000 for the 2010/11 academic year. Additionally, although not explicitly funded at this stage, CCRIF intends to maintain a similar level of support to UWI over the long term.

## UN-ECLAC and CCRIF Strategic Knowledge Building

CCRIF and ECLAC signed a Memorandum of Understanding in February 2010 related to Component 2 of the CCRIF TA Programme ("Strategic" Knowledge Building) which in turn is focused on developing partnerships with regional institutions and providing funding for regional technical projects in natural hazards/risk science. The provisions of the MoU will better enable CCRIF and ECLAC to further embrace their mutual goal of enhancing regional capacity for comprehensive disaster management (CDM) and coping with catastrophe risks as a result of natural disasters.

The MoU as designed will enable CCRIF and ECLAC to:

- Determine how the original post-event economic impact estimates made by ECLAC compare to CCRIF's model based loss estimates and to actual economic impacts six to nine months after an event
- Determine the level of basis risk (if any) and whether or not short-term liquidity support would have helped to mitigate economic impact on the country
- Undertake a further study on the cumulative macro socio-economic impacts of natural disasters on the Caribbean since 2004
- Explore future opportunities for collaboration on regional studies concerning the economics of climate change, as well as the

impact of natural disasters on

particular sectors as appropriate

### **Technical Assistance for the Reconstruction of Haiti**

In an effort to assist with the long-term recovery and reconstruction efforts in Haiti, CCRIF began work with CIMH and other International Development Partners (IDPs) particularly in the areas of hazard mitigation and future disaster prevention.

CCRIF supported CIMH to make available tools and data to help planners and relief workers in Haiti to make better decisions about where to re-settle the citizens of Haiti and where to re-build infrastructure to minimise people's exposure to flooding and landslides. CIMH began running high-resolution weather prediction models daily over Haiti which will provide early warning for potential heavy rainfall events over major watersheds, especially those in the earthquake impacted areas.

This data is important for informing rescue and recovery efforts in earthquake-

impacted areas and indicating hydro-meteorological risks to resettlement camps, especially those in, or close to, low lying areas and stream channels.

In addition to the weather model, CIMH developed simple surface water flow models for key drainage basins to delineate the extent of probable flooding. These models, in conjunction with the historical rainfall record derived from the CCRIF Caribbean rainfall model, are being refined to develop flood hazard maps for critical basins. This information will be available in time to be able to further inform the planning of longer term re-settlement sites and will help decision makers and disaster experts identify those watersheds with high flooding potential that are prone to flooding, in particular flash flooding.

## Strategic Alliances



Over the year CCRIF continued to foster key partnerships with regional and international organisations and stakeholders towards enhancing the disaster risk management capacity of the Region. A brief cross-section of these partnerships and implementation progress made with them over the year are described in the table below. In addition to those presented in the table, CCRIF also works with international agencies to support DRM in the Region.

Partner	Progress in 2009-10 Policy Year
CARICOM	<ul style="list-style-type: none"> <li>Discussions regarding an MoU between the two organisations are taking place. It is expected that the MoU will be signed in the upcoming policy year</li> </ul>
CARILEC	<ul style="list-style-type: none"> <li>Discussions regarding an MoU continued. The MoU will form part of the finalisation of the governance and operations structure for an electrical transmission and distribution system product being developed by CCRIF.</li> </ul>
CCCCC	<ul style="list-style-type: none"> <li>CCRIF and CCCCC will sign an MoU in the next policy year. This MoU will facilitate capacity building through the elaboration and enhanced use of tools in the areas of catastrophe risk modelling, parametric insurance and alternative risk transfer and the introduction of new products and programmes and initiatives to assist Caribbean governments in better understanding and financing catastrophe risk exposures which will be enhanced as a result of climate change.</li> </ul>
CDEMA	<ul style="list-style-type: none"> <li>CCRIF and the Caribbean Disaster Emergency Response Agency (CDERA) – now the Caribbean Disaster and Emergency Management Agency (CDEMA) – signed a</li> </ul>

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**Partner****Progress in 2009-10 Policy Year**

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	<p>Memorandum of Understanding on 19 August 2009. The MoU formalised a partnership to facilitate capacity building and to develop strategies for mitigating the physical and socio-economic impacts of natural disasters on countries in the region. The objectives of the MoU are to promote the use of catastrophe risk modelling tools, to introduce new products and initiatives to assist Caribbean governments in better understanding and financing catastrophe risk exposures and to share real time hazard and impact information.</p> <ul style="list-style-type: none"><li>• As highlighted in the MoU between CCRIF and CDEMA, CCRIF continued to support the annual Caribbean Conference on Comprehensive Disaster Management. CCRIF was a main sponsor of the fourth annual conference held in Montego Bay, Jamaica on 7 – 11 December, 2009. CCRIF also will support the 5<sup>th</sup> annual conference in 2010 to be held in Jamaica.</li></ul>
CIMH	<ul style="list-style-type: none"><li>• CCRIF and CIMH began collaborating to provide assistance to Haiti in its long-term recovery and reconstruction efforts.</li><li>• On 25 February 2010, CCRIF and CIMH launched the CCRIF regional rainfall model and conducted a workshop on the model for regional representatives from the finance, disaster management and meteorological communities.</li><li>• CCRIF, with support from CIMH, will continue to provide real-time hurricane hazard forecasts for all member governments once the Atlantic Hurricane Season starts on 1 June 2010.</li><li>• CCRIF also continued to provide ongoing assistance to the CIMH for training opportunities for staff</li></ul>
UN-ECLAC	<ul style="list-style-type: none"><li>• An MoU was signed on 22 February 2010 between the two organisations aimed at facilitating capacity building and developing strategies for mitigating the physical and socio-economic impacts of natural disasters in the Region.</li></ul>
UWI	<ul style="list-style-type: none"><li>• Discussions took place regarding the CCRIF UWI scholarship programme which will start in the 2010-11 academic year.</li><li>• Discussions also continued with the University of the West Indies Disaster Risk Reduction Centre (UWI-DRRC) to finalise an MoU between CCRIF and UWI-DRRC. This MoU will highlight opportunities for working together and will enable UWI-DRRC to utilise CCRIF's second generation risk modelling platform. The draft MoU document is currently being reviewed by UWI.</li></ul>

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# Communications, Publications and Public Relations

CCRIF as a newly formed institution has as one of its strategic objectives "To raise the profile of CCRIF as a Caribbean Community entity". This means that CCRIF seeks to facilitate and promote informed decision-making through programmes and activities directed to its members, the media, public policy makers, and the general public, all aimed at providing a valuable service to the community.

To this end, CCRIF in 2009-10 sought to:

- Develop and deliver awareness raising and/or education programmes for CCRIF contacts and other relevant policy makers in CCRIF member countries; to nurture support for CCRIF programmes and to foster improvements in the understanding of CCRIF as a key component of country disaster risk reduction activities and an essential tool in climate change adaptation
- Develop and deliver communication and messaging programmes to promote the important role of risk transfer mechanisms in country sustainability planning
- Develop a strategy for positioning CCRIF to lead discussions in other

regions for the development of similar not-for-profit multi-risk pools

- Develop and deliver communication and messaging programmes to strengthen CCRIF's reputation as a respected Caribbean Community entity

This communications objective along with the foregoing sub-objectives formed the basis for the development of the CCRIF Communications Plan 2009 – 2011. The activities undertaken over the period also responded to issues raised in the CCRIF Operational Review undertaken by the World Bank as an assessment of the Facility's first years of operations. One key issue raised was a general lack of awareness of the operations of the Facility and how the CCRIF mechanism actually works. In this section, information related to the following will be presented:

- CCRIF Publications
- Seminars and Workshops hosted
- Seminars, Conferences and Workshops attended
- Events sponsored
- Public relations activities and their impacts

## CCRIF Publications

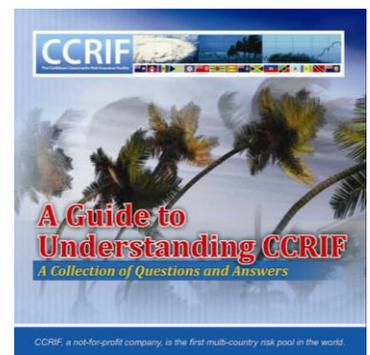
Over the year, CCRIF produced 17 publications, including 4 quarterly reports, 4 quarterly newsletters, 2 technical booklets, the 2008-09 Annual Report, 2 brochures and 4 flyers. These publications

were distributed to member countries, CCRIF stakeholders and at conferences and workshops hosted by CCRIF and/or attended by members of the CCRIF Board and team.



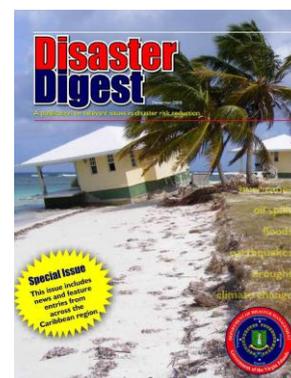
Two of the major publications were:

- Booklet, **“Caribbean Catastrophe Risk Insurance Facility - A Collection of Papers and Articles”** - this booklet includes four technical papers and provide an analysis of CCRIF to date and its benefits. The papers presented are designed to enable the reader to better understand catastrophe risk transfer facilities and their contribution as a key disaster risk management tool
- Booklet, **“A Guide to Understanding CCRIF. Collection of Questions and Answers”**



Additionally, CCRIF also contributed articles to a range of publications. Notable among these were:

- An article in *Climate Sense*, published by the World Meteorological Organisation. CCRIF contributed a chapter entitled “Innovative risk transfer options as adaptation strategies to growing hydro-meteorological risks in the Caribbean Basin,” written by Simon Young and Ekhosuehi Iyehen.
- An article in the 2009 issue of *Disaster Digest* magazine published by the Virgin Islands Department of Disaster Management. The article, entitled “Risk Management as part of a Comprehensive Approach to Climate Change Adaptation,” was written by Ekhosuehi Iyehen and Simon Young, and describes the CCRIF model as a way to reduce uncertainty of potential natural disaster impacts, thereby enabling more efficient disaster mitigation strategies in the face of increased risks due to climate change.
- The “Closing Quote” article by Simon Young in the March 2010 issue of *Insurance Journal*, entitled “Innovative Use of Insurance Tools in Disaster Risk Management for Sustainable Development.”



## CCRIF Communications and PR

CCRIF regularly disseminates information to over 400 stakeholders. The CCRIF mailing list includes primary contact persons within the ministries of finance of existing and potential member countries, reinsurer companies, as well as approximately 360 “stakeholders.” These stakeholders are regional representatives such as disaster management and meteorological officers, experts in climate change, environmental management professionals as well as members of donor agencies and international organisations, and interested individuals who request information from the Facility, including an increasing number of students. Persons who attend workshops and meetings in

which CCRIF participates are regularly added to this list. In addition to these targeted persons, CCRIF communicates with over 500 members of the press.

CCRIF released 15 press releases over the year. Some topics covered by these releases related to:

- Economics of Climate Adaptation Study
- Haiti Payout from CCRIF after Devastating Earthquake
- Launch of the Regional Rainfall Model
- CCRIF Reconstruction Efforts in Haiti
- CCRIF Technical Assistance Programme

During the period 1 June 2009 – 31 May 2010, there was significant coverage of CCRIF in the news with articles on CCRIF

being published in over 250 locations: printed and online newspapers and journals, online news portals, organisation websites and discussion blogs.

There was extensive coverage of CCRIF's response to the devastating earthquake that occurred in Haiti in January 2010. The press published stories related to CCRIF's payout as well as post-earthquake technical assistance provided to Haiti in collaboration with partners such as the Caribbean Institute for Hydrology and Meteorology (CIMH). There was positive reaction to CCRIF's rapid payout with considerable support for the CCRIF model. Subsequently, coverage of CCRIF in the

press focused on the need for greater catastrophe coverage in the Caribbean.

Figure 7 shows the distribution of coverage by month throughout the 12-month period, indicating the regional source of the publication. This shows the large increase in coverage in January and February due to the Haiti earthquake that occurred on 12 January 2010. 108 and 41 articles appeared in January and February, respectively. This compares with a maximum of 15 articles in any month before the earthquake occurred and a maximum of 23 articles that occurred after February; these were published in March and reflected continued interest in the earthquake, largely in the context of policy renewals.

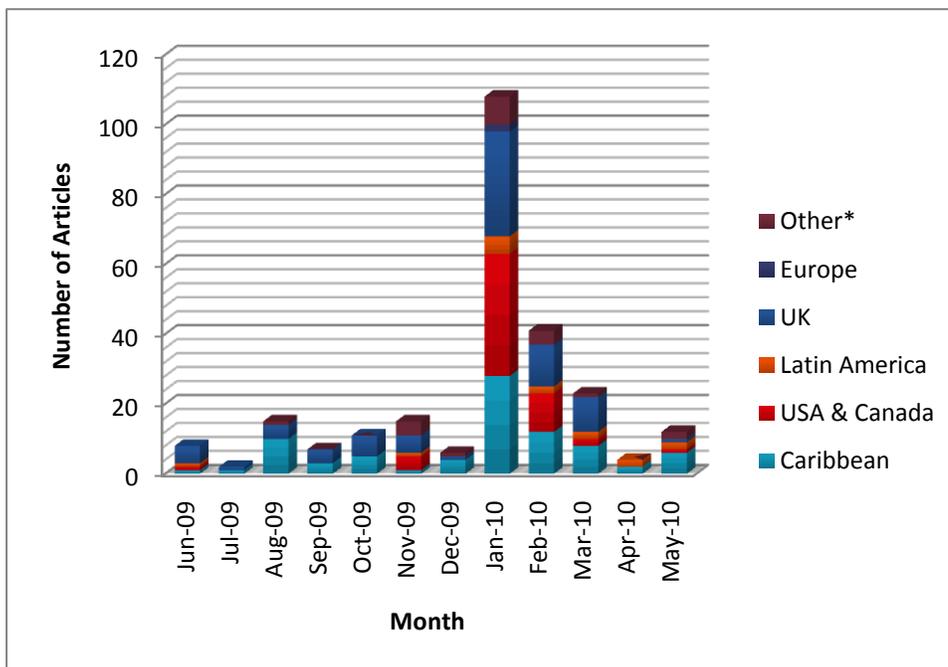


Figure 7: Press coverage by month and geographic region

Almost all countries within the Caribbean region carried stories about CCRIF with

Barbados providing particularly outstanding coverage. This region, along

with the USA and UK provided the greatest coverage. There were 81, 54 and 79 articles from sources in the Caribbean, USA & Canada, and the UK, respectively.

Figure 8 shows the coverage of CCRIF by media source. 72 articles appeared in Caribbean printed and online newspapers and 37 in other newspapers; 108 articles on insurance and financial newspapers, journals and websites; 16 articles on websites of organisations such as the Organisation of American States, World

Bank, CDEMA, and CARICOM; and there were 20 posts on online blogs and discussion fora.

In addition to articles that appeared in media publications, CCRIF was included in approximately 20 reports by agencies such as the World Bank, DFID, and ECLAC. CCRIF was also included in academic studies and theses and published in journals including the Global Economy Journal and Risk Management and Insurance Review.

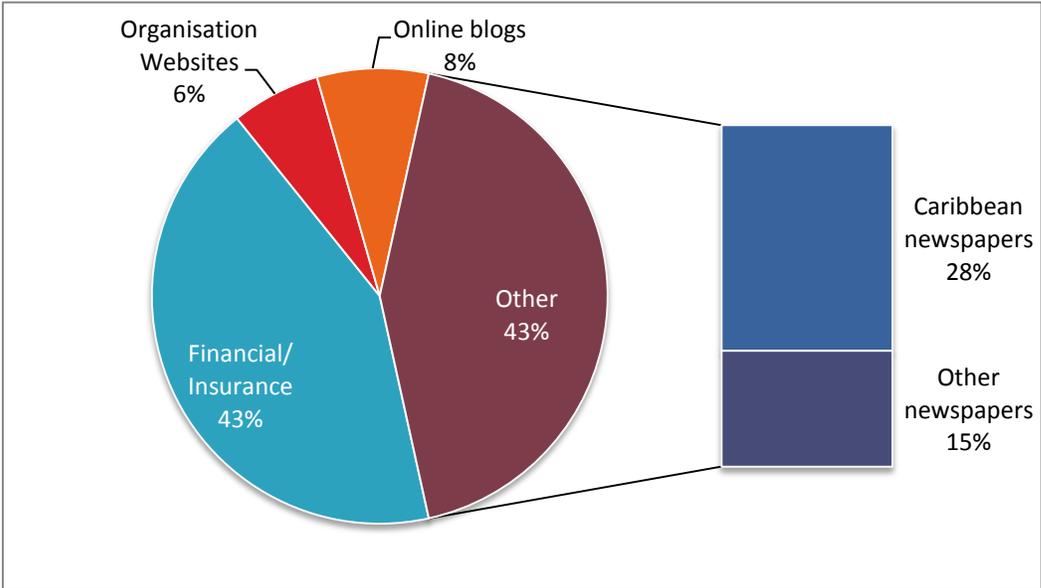


Figure 8: Press coverage by media type.

## CCRIF Website

At the end of the policy year in May 2010, CCRIF made available its newly designed website. Specific new features of the site include:

- more logical navigation through the site
- robust site search capabilities
- easier access to CCRIF publications and reports
- multimedia articles and interviews
- detailed information about CCRIF's programmes, partnerships and projects
- allowing member countries to log in using a

unique username/password in order to access the Real Time Impact Forecasting System (RTFS). This will enable CCRIF to monitor the usage of the RTFS and to determine where additional support may be needed. The capability for the data to be automatically downloaded from KAC to the CCRIF site was maintained.



During the period June 2009 – May 2010, approximately 14,600 visits from the Caribbean, USA, Canada, the UK, Europe, Japan, China and other countries were made to the CCRIF website, totaling over 7.2 million “hits” (Figure 9). The total access by persons in the Caribbean was 1,380,000 “hits” during this period. This is well above the target of 45,000 for the number of hits from the Caribbean in 2009-2010, as set in the CCRIF Strategic Plan 2009-2012.

There was a significant increase in use of the CCRIF website in January 2010,

compared with previous months, which is to be expected in the aftermath of the Haiti earthquake. The largest increase during this time was from persons in the USA and Canada but all regions showed significant increases – except in the Caribbean. In February, while the numbers decreased, they remained higher than the pre-earthquake levels and in fact, the Caribbean numbers increased dramatically in February. In general, throughout the period June 2009 – May 2010, the number of hits on the site generally trended upwards.

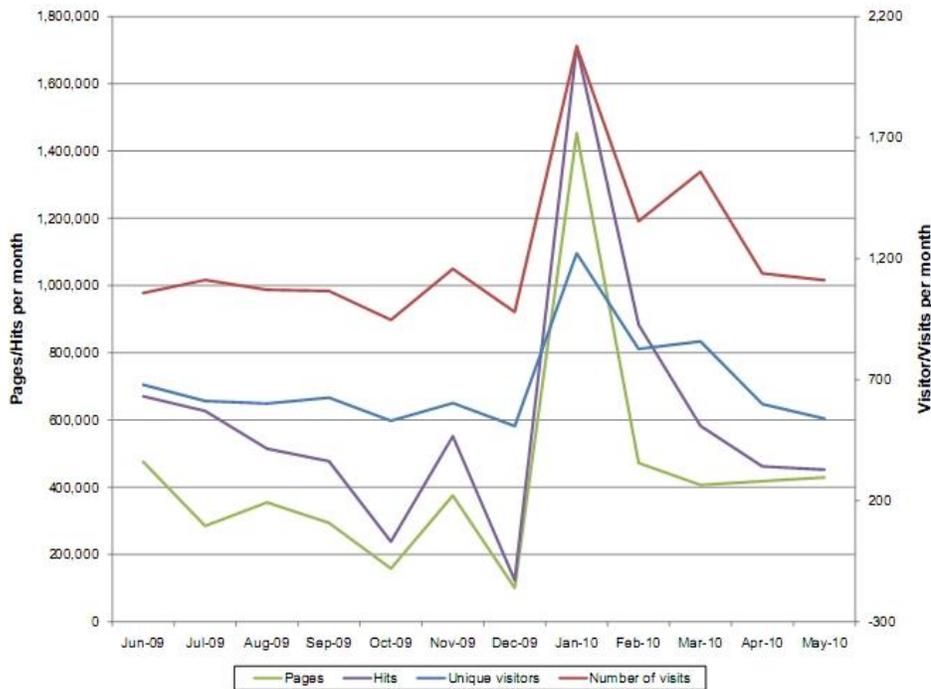


Figure 9: Web hits and visitors by month.

## Conferences and Fora

The CCRIF Board and/or members of the team participated in 24 conferences and meetings over the year. At approximately 80% of these conferences, presentations on CCRIF were made as well as distribution of materials and booklets on CCRIF. CCRIF sponsored four conferences including the Caribbean Disaster Management conference in which the Facility was the main sponsor. Additionally, two workshops and one professional development session were hosted.



The CCRIF Booth at the CDEMA Conference

Conferences sponsored included:

- 4<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management (CDEMA Conference)
- Safe Hospitals and Other Critical Facilities Conference
- Caribbean Media Exchange (CMEx) 18th Conference on Sustainable Tourism

Workshops hosted by CCRIF were:

- Regional Workshop on the Excess Rainfall Model held in Barbados in February 2010
- Regional Workshop on Economics of Climate Adaptation held in Barbados in May 2010



A cross section of participants at the regional workshop on the Excess Rainfall Model held at the Caribbean Development Bank (CDB) in Barbados.

The Professional Development Session (PDS), part of the 4<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management was held 7 December 2009 in Montego Bay Jamaica and attracted over 60 participants. The PDS, entitled "Hazard Risk Reduction Initiatives in the Context of a Changing Climate: Prospects for Promoting Sustainable Prosperity in the Caribbean" targeted senior officials in Caribbean governments who work in the areas of finance, planning, economic development, meteorology and disaster management.



Dr. Simon Young makes his presentation to over 60 persons who attend the CCRIF Professional Development Session.

Some of the key conferences attended by the CCRIF Board and team are listed in the table below

Conference	Additional Information
<b>Safe Hospitals and Other Critical Facilities Conference</b>	CCRIF co-sponsored this Conference, held in Barbados on 11 and 12 June 2009. This conference, hosted by the Caribbean Division of the Institution of Structural Engineers in partnership with the Pan American Health Organisation (PAHO), Council of Caribbean Engineering Organisations and the Barbados Association of Professional Engineers, focused on earthquake resistant design and construction, particularly in respect to hospitals and other critical facilities.
<b>Alliance of Small Island States Negotiators' Preparatory Workshop</b>	CCRIF was represented by CaribRM at this workshop in Grenada during the period 23-25 July 2009. CCRIF's presence was requested to review and provide recommendations into the AOSIS proposal for the creation of a Multi-window Mechanism to address loss and damage from climate change impacts.
<b>Regional Ministerial-level Meeting on Climate Change and Development</b>	CaribRM represented CCRIF at this regional meeting in St. Lucia on 14 & 15 September, 2009. This event formed part of the Caribbean region's preparation for the United Nations Climate Change Conference in Copenhagen on 7-18 December, 2009. The meeting was hosted by the Caribbean Community (CARICOM) Secretariat, the Caribbean Community Climate Change Centre (CCCCC) and the Government of St. Lucia.
<b>World Forum of Catastrophe Programs</b>	Chairman Milo Pearson represented CCRIF at the World Forum of Catastrophe Programs in Taipei, Taiwan on 28-30 September, 2009. Hosted by the Taiwan Residential Earthquake Insurance Fund, this was the fourth annual meeting of the Forum which brings together executives from national and international disaster insurance schemes to share their knowledge and experience and to make this available to new and emerging schemes and their sponsors.
<b>Final UN-FCCC negotiation session prior to COP15</b>	CaribRM, working in conjunction with the Caribbean Community Climate Change Centre (CCCCC) and in support of Caribbean and other Alliance of Small Island States (AOSIS) parties, was present at the final UNFCCC negotiation session prior to COP15, held in Barcelona, Spain on 2-6 November, 2009.
<b>National Association of</b>	Board Chairman, Mr Milo Pearson participated in the

Conference	Additional Information
<b>Insurance Commissioners Meeting</b>	National Association of Insurance Commissioners meeting held 5-8 December 2009 in San Francisco, California. He delivered a presentation providing an overview of CCRIF and parametric insurance to an audience of Insurance Commissioners in US states that are exposed to hurricanes.
<b>Fourth Caribbean Conference on Comprehensive Disaster Management</b>	CCRIF was a main sponsor of the Fourth Caribbean Conference on Comprehensive Disaster Management held in Montego Bay, Jamaica on 7-11 December, 2009. CCRIF's involvement in the conference included hosting a professional development session (PDS), Hazard Risk Reduction Initiatives in the Context of a Changing Climate: Prospects for Promoting Sustainable Prosperity in the Caribbean, attended by over 60 representatives of ministries of finance, national disaster coordinators and other stakeholders from throughout the region; and sponsoring 15 participants at the PDS and conference.
<b>Reinsurance Association of America (RAA) conference</b>	On behalf of CCRIF, Dr Simon Young, participated in this conference entitled, Catastrophe Modeling 2010: Probabilities and Possibilities, held in Orlando on 9-11 February 2010, making a presentation entitled "Haiti, the Caribbean Cat Risk Insurance Facility, and Cat Risk in the Caribbean". Dr Young concluded his keynote contribution by stating that greater focus should be directed at understanding not just insured risks but national infrastructure and economic susceptibility within developing countries.
<b>Financial and Private Sector Development Forum 2010</b>	CCRIF attended the Financial and Private Sector Development Forum 2010 held in Washington DC, on 2-3, March, 2010. The theme of the forum was "Getting Back to Business." CCRIF Board member Mr Isaac Anthony and Dr Simon Young, CEO of CaribRM, spoke at a session entitled Public-Private Partnerships in Catastrophe Risk Financing: Challenges and Opportunities for Developing Countries. Mr Anthony's presentation focused on fiscal management of natural disasters in Saint Lucia and the role of CCRIF as a regional risk pooling mechanism; Dr Young's presentation was on the role of CCRIF in the Caribbean. Participants included World Bank Group staff and clients who gathered to network and discuss the latest challenges in financial sector and private sector development.
<b>Caribbean Regional Review</b>	CaribRM represented CCRIF at the Caribbean Regional

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## Conference

## Additional Information

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### Meeting of the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action

Review Meeting of the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action (MSI) held in Grenada on 16 & 18 March 2010. The event was hosted by the Government of Grenada, and was jointly organised by the UN Economic Commission for Latin America and the Caribbean (ECLAC) and the UN Department of Economic and Social Affairs (DESA) as part of the regional preparatory process for the high-level review to be undertaken by the 65<sup>th</sup> session of the UN General Assembly, in September 2010. CaribRM's attendance at this meeting was also used to introduce the CCRIF ECA project and the McKinsey/Swiss Re team to the country representatives and regional institutions present. The country representatives were primarily from the ministries of Foreign Affairs as well as a number of regional agencies. The draft Caribbean report on the MSI, tabled at the meeting, included references to CCRIF that reflected an increasing awareness of the Facility and the role it plays within the broader disaster management framework. This report has been updated based on the input of the participants at the meeting.

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### 14<sup>th</sup> Meeting of the Council for Finance and Planning (COFAP)

Meeting of Caribbean Ministers of Finance 27 February & 1 March 2010, held in Trinidad & Tobago. Chairman, Mr Milo Pearson participated in this forum and discussed CCRIF's activities and operations.

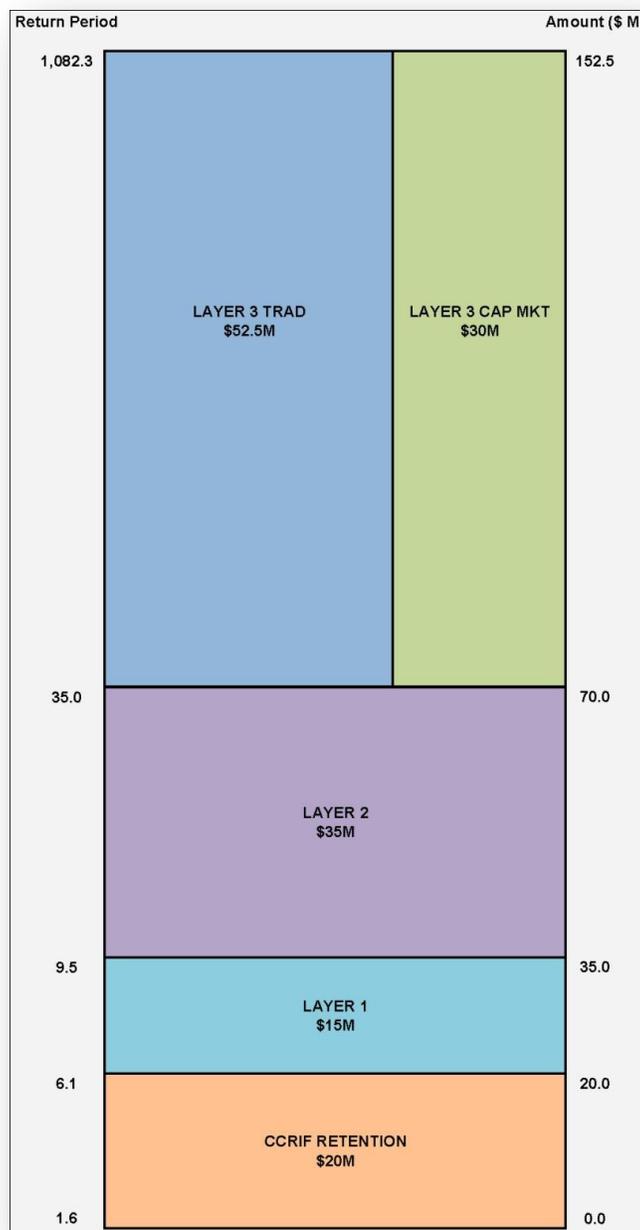
## CCRIF's Financial Stability

CCRIF issued 29 annual policies to 16 CARICOM countries for the 2009-2010 policy/financial year. Annual premium income came to approximately US\$21.5 million. Capital raised from donor contributions and held in a Trust Fund by the World Bank totalled approximately US\$67.5 million, with approximately US\$28 million remaining at the end of the financial year. A further \$22 million has been contributed in the form of participation fees from member governments.

CCRIF's aggregate exposure for policies written was just over \$600 million. CCRIF purchased US\$132.5 million of reinsurance capacity above a US\$20 million retention to support 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 \$152.5M, provided 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 year.





CCRIF

CARIBBEAN CATASTROPHE  
RISK INSURANCE FACILITY

**AUDITED  
FINANCIAL  
STATEMENTS**

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEARS ENDED MAY 31, 2010 AND 2009**

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEARS ENDED MAY 31, 2010 AND 2009**

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**REPORT OF INDEPENDENT AUDITORS**

**To The Board of Directors and Shareholder of  
Caribbean Catastrophe Risk Insurance Facility**

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of changes in shareholder's equity and of cash flows present fairly, in all material respects, the financial position of Caribbean Catastrophe Risk Insurance Facility and its subsidiary (the "Group") as at May 31, 2010 and 2009, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Group's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

*PricewaterhouseCoopers*

August 23, 2010

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED BALANCE SHEETS**

(expressed in U.S. dollars)

	<u>2010</u>	<u>May 31,</u> <u>2009</u>
<b>ASSETS</b>		
Cash and cash equivalents (Note 4)	\$ 8,044,502	\$17,827,229
Investments, at fair value (Note 5) (cost \$89,393,955 (2009:\$50,868,966))	84,891,198	53,174,430
Unrealized gains on forward and futures contracts (Note 10)	-	159,274
Accrued interest	1,397,042	611,499
Prepaid expenses	39,935	30,418
Amounts due from Multi Donor Trust Fund (Note 6)	<u>454,348</u>	<u>6,819,540</u>
Total assets	<u>\$ 94,827,025</u>	<u>\$78,622,390</u>
<b>LIABILITIES AND SHAREHOLDER'S EQUITY</b>		
<b>Liabilities</b>		
Accounts payable and accrued expenses (Note 7)	524,591	262,818
Income from parametric contracts received in advance (Note 8)	4,474,780	11,587,280
Participation fee deposits (Note 9)	21,988,512	21,888,512
Unrealized losses on forward and futures contracts (Note 10)	<u>297,310</u>	<u>1,463,323</u>
Total liabilities	<u>27,285,193</u>	<u>35,201,933</u>
<b>Shareholder's equity</b>		
Share capital (Note 11)	1,000	1,000
Share premium (Note 11)	119,000	119,000
Technical assistance reserve (Notes 3 & 11)	480,575	-
Retained earnings	<u>66,941,257</u>	<u>43,300,457</u>
Total shareholder's equity	<u>67,541,832</u>	<u>43,420,457</u>
Total liabilities and shareholder's equity	<u>\$ 94,827,025</u>	<u>\$78,622,390</u>

Approved for issuance on behalf of the Board of Directors of Caribbean Catastrophe Risk Insurance Facility by:

Milo Pearson

August 23, 2010

\_\_\_\_\_  
Director

\_\_\_\_\_  
Date

Garry Wilkins

August 23, 2010

\_\_\_\_\_  
Director

\_\_\_\_\_  
Date

The accompanying notes are an integral part of these consolidated financial statements.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED STATEMENTS OF INCOME**

*(expressed in U.S. dollars)*

	Year ended May 31,	
	<u>2010</u>	<u>2009</u>
<b>Operating income</b>		
Income from parametric contracts (Note 2)	\$ 21,488,509	\$21,838,512
Expenses on parametric reinsurance contracts (Note 2)	( 8,766,913)	( 9,461,164)
Net income on parametric contracts	12,721,596	12,377,348
Ceding commissions on parametric reinsurance contracts	<u>146,445</u>	<u>184,058</u>
Total operating income	<u>12,868,041</u>	<u>12,561,406</u>
<b>Operating expenses</b>		
Claims paid on parametric contracts (Note 12)	7,753,579	6,303,913
Brokerage and facility supervisor fees	<u>600,304</u>	<u>528,310</u>
Total operating expenses	<u>8,353,883</u>	<u>6,832,223</u>
Net operating income	4,514,158	5,729,183
<b>Other income and expenses</b>		
Investment income (Note 13)	3,447,804	2,597,588
Income from Multi Donor Trust Fund (Note 6)	17,838,307	16,021,033
Technical assistance expenses (Note 3)	( 818,219)	-
Administrative expenses (Notes 14 and 15)	<u>( 860,675)</u>	<u>( 877,861)</u>
Net income for the year	<u>\$ 24,121,375</u>	<u>\$23,469,943</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDER'S EQUITY**

*(expressed in U.S. dollars)*

	<u>Share capital</u>	<u>Share premium</u>	<u>Technical assistance reserve</u>	<u>Retained earnings</u>	<u>Total</u>
Balance at May 31, 2008	1,000	119,000	-	19,830,514	19,950,514
Net income for the year	<u>-</u>	<u>-</u>	<u>-</u>	<u>23,469,943</u>	<u>23,469,943</u>
Balance at May 31, 2009	1,000	119,000	-	43,300,457	43,420,457
Transfer to technical assistance reserve	-	-	1,298,794	( 1,298,794)	-
Net income for the year	-	-	-	24,121,375	24,121,375
Utilization of technical assistance reserve	<u>-</u>	<u>-</u>	<u>( 818,219)</u>	<u>818,219</u>	<u>-</u>
Balance at May 31, 2010	<u>\$ 1,000</u>	<u>\$ 119,000</u>	<u>\$ 480,575</u>	<u>\$ 66,941,257</u>	<u>\$ 67,541,832</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

*(expressed in U.S. dollars)*

	Year ended May 31,	
	<u>2010</u>	<u>2009</u>
<b>Operating activities</b>		
Net income for the year	\$ 24,121,375	\$23,469,943
Adjustments to reconcile net income to net cash from operating activities:		
Adjustment for items not affecting cash:		
Change in fair value of investments	6,808,221	( 2,392,265)
Net realized (gain)/loss on investments	( 3,313,403)	1,012,599
Unrealized gains/losses on forward and futures contracts	( 1,006,739)	1,285,401
Changes in assets and liabilities:		
Purchase of securities	( 129,245,228)	(69,509,902)
Proceeds from sale of securities	96,920,344	29,923,727
Net movement in short term investments	( 2,886,702)	18,502,056
Accrued interest	( 785,543)	( 570,815)
Prepaid expenses	( 9,517)	-
Amounts due from Multi Donor Trust Fund	6,365,192	( 4,774,255)
Accounts payable	261,773	( 744,830)
Income from parametric contracts received in advance	<u>( 7,112,500)</u>	<u>( 137,501)</u>
Net cash used in operating activities	<u>( 9,882,727)</u>	<u>( 3,935,842)</u>
<b>Financing activities</b>		
Participation fee deposits received	<u>100,000</u>	<u>2,400,000</u>
Net cash provided by financing activities	<u>100,000</u>	<u>2,400,000</u>
<b>Net change in cash and cash equivalents</b>	<b>( 9,782,727)</b>	<b>( 1,535,842)</b>
<b>Cash and cash equivalents at the beginning of year</b>	<u>17,827,229</u>	<u>19,363,071</u>
<b>Cash and cash equivalents at the end of year</b>	<u>\$ 8,044,502</u>	<u>\$17,827,229</u>

The accompanying notes are an integral part of these consolidated financial statements.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**1. Incorporation and principal activity**

Caribbean Catastrophe Risk Insurance Facility, Ltd. (the “Company”) was incorporated on February 27, 2007 under the laws of the Cayman Islands and obtained an unrestricted Class “B” Insurer’s licence under the provisions of the Cayman Islands Insurance Law on May 23, 2007. The Company’s sole shareholder is the CCRIF Star Trust (the “Trust”). The Trustees of the Trust are based in the Cayman Islands.

The principal activity of the Company is to provide catastrophe risk coverage through parametric contracts, specifically relating to tropical cyclones and earthquakes (“Acts of Nature”), to certain Caribbean countries (“Participating Countries”).

The Company also owns all of the beneficial interests in the Global Managed (7) \$ Fund (the “Investment Fund” or “Subsidiary”) (a Segregated Portfolio of London & Capital Satellites SPC). Accordingly, the Company consolidates the results of the Investment Fund within these financial statements. The purpose of the Investment Fund is to conduct the investment activities of the Company. The Company and the Investment Fund are collectively referred to as “the Group” in these consolidated financial statements.

**2. Parametric contracts**

The principal activity of the Group is to provide catastrophe risk coverage to governments of Participating Countries, through parametric contracts, specifically relating to defined Acts of Nature that occur in or in close proximity of the Participating Countries.

Each Participating Country determines the level of aggregate coverage and attachment points which are then used to determine their individual premiums. Claims are based on calculated index values using specified terms, conditions and formulae set out in the “Claims Procedures Manual” (hereinafter the “Claim Payout”) and not with reference to actual losses incurred by the respective Participating Countries. Accordingly, Claim Payouts are not triggered by actual losses but rather the occurrence of the specified Acts of Nature within the defined policy parameters. For the 2009/10 policy year (which terminated on May 31, 2010), the combined aggregate coverage limits for all Participating Countries were \$407.8 million (2009: \$384.4 million) for tropical cyclones events and \$193.4 million (2009: \$177.7 million) for earthquake events, respectively.

The Group has ceded layers of this exposure to commercial reinsurers and the International Bank for Reconstruction and Development (“World Bank”). The following is a summary of the coverage in the program for the period up to May 31, 2010 and 2009:

- The Group retains all losses up to \$20 million (2009: \$12.5 million) per annum.
- The next \$15 million (2009: \$12.5 million) of losses are reinsured with 4 (2009: 4) reinsurers with an A.M.Best rating of at least A.
- The next \$35 million (2009: \$30 million) of losses are reinsured with 5 (2009: 4) reinsurers with an A.M.Best rating of at least A.
- The next \$82.5 million (2009: \$90 million) of losses are ceded 63.6% to 5 (2009: 66.7% to 3) commercial reinsurers with an A.M.Best rating of at least A, and 36.4% (2009: 33.3%) to the World Bank.
- The Group retains all subsequent losses above \$152.5 million (2009: \$145 million).

Notwithstanding the arrangements outlined above, currently all losses incurred in the Group’s retention limits are reimbursed to the Group by the Multi Donor Trust Fund until exhaustion of the funds available within that fund (see Note 6).

Losses are determined in accordance with the formulae set out in the contracts and are recorded as an expense on occurrence of a covered event. At May 31, 2010 and 2009, there were no unpaid losses.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**3. Significant accounting policies**

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”) and are stated in United States dollars. A summary of the significant accounting and reporting policies used in preparing the accompanying consolidated financial statements is as follows:

**Basis of Preparation:** The financial position, results of operations and cash flows of the Company and Subsidiary have been included in these consolidated financial statements. All material balances and transactions (and related gains/losses) between the Company and the Subsidiary have been eliminated upon consolidation.

**Management estimates and assumptions:** The preparation of financial statements in accordance with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. Actual results could differ from these estimates.

**Cash and cash equivalents:** Cash and cash equivalents comprise of call accounts with the Group’s banker and investment custodian. The carrying amount reported approximates fair value.

**Investments:** Investments consist of investments in retail mutual funds, corporate debt securities, sovereign debt securities and short-term investments.

The fair value of fixed income securities are determined based on quoted market prices and prices determined using generally accepted pricing models as provided by the Group’s investment manager and custodian. The fair value of the mutual funds is based on the daily net asset values provided by fund administrators.

Unrealized gains and losses on investments are recorded as a change in fair value in the Consolidated Statements of Income. Realized gains and losses on investments are determined on the specific identification method and are credited or charged to the Consolidated Statement of Income.

Interest and dividend income is recorded on the accruals basis.

**Forward and futures contracts:** The Group permits its investment manager to invest, within prescribed limits, in financial exchange traded futures contracts and to sell securities not yet purchased (“Short Selling”) to reduce or increase exposures and for managing the asset allocation and duration of the fixed income portfolio as well as for speculative investments. Initial margin deposits are made upon entering into futures contracts and can be made either in cash or securities. During the period the futures contracts are open, changes in the value of the contracts are recognized as unrealized gains or losses by “marking-to-market” on a daily basis to reflect the market value of the contracts at the end of each day’s trading. Variation margin payments are made or received, depending upon whether unrealized losses or gains are incurred. When the contracts are closed, the Group records a realized gain or loss equal to the difference between the proceeds from (or cost of) the closing transaction and the Group’s basis in the contracts. Futures contracts are valued based on exchange traded prices.

The Group also permits its investment manager to invest in forward foreign exchange contracts to reduce or increase exposure to foreign currency fluctuations in its securities which are denominated in currencies other than the U.S dollar. These contracts are also valued daily using the “marking-to-market” method and are recognized in the balance sheet at their fair value, being the unrealized gains or losses on the contracts as measured by the difference between the forward foreign exchange rates at the dates of entry into the contracts and the forward rates at the reporting date. Open forward and futures contracts are valued using Level 2 and Level 1 inputs (as defined as page 8), respectively.

Realized gains and losses and movement in unrealized gains and losses on both futures and foreign currency forward contracts are recorded as a component of investment income in the Consolidated Statements of Income.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**3. Significant accounting policies (continued)**

**Credit default swaps (“CDSs” and over-the-counter (“OTC”) options:** The Group permits its investment manager to enter into CDSs to manage its exposure to the market or certain sectors of the market, to reduce or increase exposure to defaults of underlying debt instruments or create speculative exposure to debt issuers to which it is otherwise not exposed. OTC options are purchased or written to gain speculative exposure to, or hedge against, changes in the value of equities. CDSs and OTC options are generally valued based on estimates provided by broker dealers or derived from proprietary/external pricing models using quoted inputs based on the terms of the contracts. Net realized gains or losses are recorded with respect to periodic interest payments made or received on CDSs.

**Other Options and Warrants:** The Group permits its investment manager to purchase exchange-traded options and warrants to gain speculative exposure to changes in equity price. When an option or warrant is purchased, an amount equal to the premium paid is recorded as an investment and is subsequently adjusted to the current market value of the option or warrant purchased. Premiums paid for the purchase of options or warrants which expire unexercised are treated by the Group as realized losses on derivative contracts. If a purchased put option is exercised, the premium is subtracted from the proceeds of the sale of the underlying security, foreign currency or commodity in determining whether the Group has realized a gain or loss on derivative contracts. If a purchased call option or warrant is exercised, the premium increases the cost basis of the security, foreign currency or commodity purchased by the Group.

**Fair value measurements:** US GAAP establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under US GAAP are as follows:

- Level 1      Inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that the Group has the ability to access at the measurement date;
- Level 2      Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly, including inputs in markets that are not considered to be active;
- Level 3      Inputs that are unobservable.

Inputs are used in applying the various valuation techniques and broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics, and other factors for debt securities. The fair value of investments in common stocks and exchange-traded funds is based on the last traded price. The Group uses the Net Asset Values (“NAV”) to estimate the fair value of its investments in non-exchange traded mutual funds. Investments in debt securities are valued based on observable inputs for similar securities and may include broker quotes. A financial instrument’s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. However, the determination of what constitutes “observable” requires significant judgment by the Group’s investment manager and custodian. The investment manager and custodian consider observable data to be market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant markets. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the investment advisor’s perceived risk of that instrument. Investments are initially recorded at cost on trade date (being the fair value at date of acquisition) and are subsequently revalued to fair value.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**3. Significant accounting policies (continued)**

Investments whose values are based on quoted market prices in active markets, and are therefore classified within level 1, include active listed equities, certain U.S. government and sovereign obligations, and certain short-term, investments. The investment manager does not adjust the quoted price for such instruments.

Investments that trade in markets that are considered to be less active, but are valued based on quoted market prices, dealer quotations or alternative pricing sources supported by observable inputs are classified within level 2. These include certain sovereign obligations, most government agency securities, liquid corporate debt securities, certain mortgage products, state, municipal and provincial obligations. As level 2 investments include positions that may not be traded in active markets and/or may subject to transfer restrictions, valuations may be adjusted, generally based on available market information.

Derivative instruments can be exchange-traded or privately negotiated over-the-counter (“OTC”). Exchange-traded derivatives, such as futures contracts and exchange traded option contracts, are typically classified within level 1 or level 2 of the fair value hierarchy depending on whether or not they are deemed to be actively traded. OTC derivatives, including forwards, credit default swaps, and interest rate swaps, are valued by the investment manager using observable inputs, such as quotations received from the counterparty, dealers or brokers, whenever available and considered reliable. In instances where models are used, the value of an OTC derivative depends upon the contractual terms of, and specific risks inherent in, the instrument as well as the availability and reliability of observable inputs. Such inputs include market prices for reference securities, yield curves, credit curves, measures of volatility, prepayment rates and correlations of such inputs. OTC derivatives, such as generic forwards, swaps and options, have inputs which can generally be corroborated by market data and are therefore generally classified within level 2.

None of the Group’s investments are classified within level 3.

**Income from Multi Donor Trust Fund:** In accordance with the grant agreement described in Note 6, the Group records income from Multi Donor Trust Fund on an accruals basis when costs reimbursable under the grant agreement are incurred and for which management intend to seek reimbursement. Accordingly, the Group does not record amounts available from the Multi Donor Trust Fund as income until such time when reimbursable costs are incurred (see Note 6) and management intend to seek reimbursement for such costs. Amounts due from Multi Donor Trust Fund represent unsettled claims for reimbursements under the grant agreement and accruals for reimbursable costs incurred for which no reimbursement claims had been submitted at the balance sheet dates.

**Income and expenses from parametric contracts:** Amounts payable/receivable for claims under the parametric policies written and ceded by the Group do not correlate directly to the policyholder's incurred insurable loss (see Note 2 for details). Accordingly, these policies are not accounted for as insurance contracts within these consolidated financial statements.

Income from parametric contracts are initially recognized as a liability (reinsurance ceded: as an asset) and subsequently reported at fair value. All subsequent changes in fair value of the parametric contracts are recognized in earnings as income (reinsurance expenses) attributable to parametric contracts. The fair value of the contracts is determined based on management's best estimate of the discounted payouts (recoveries) resulting from the reasonably probable occurrence, magnitude and location of insured events (based on historical trends and statistics) during the unexpired period of the contracts. At May 31, 2010 and 2009, there was no unexpired period on either the written or ceded parametric contracts; accordingly, the fair value of these instruments was \$nil and accordingly, all income and expenses on such contracts are recognized as income/expenses in the Consolidated Statements of Income.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**3. Significant accounting policies (continued)**

**Participation fee deposits:** Participation fee deposits are paid by Participating Countries to enter the program. Deposits received are recorded as a liability in the financial statements. Participation fee deposits are recognized as income when:

- they are no longer refundable to the Participating Countries (see Note 9); and/or
- they are required to fund losses (see Note 9)

Deposits that are utilized to fund losses will be reinstated to the extent available from subsequent retained earnings up to the maximum amount of the initial deposits.

**Foreign currency translation:** Foreign currency assets and liabilities are converted to U.S. dollars at the rate of exchange prevailing at the balance sheet date. Transactions in foreign currencies are converted into U.S. dollars at the rate of exchange prevailing at the date of the transaction. Foreign exchange differences are included in the Consolidated Statement of Income in the year to which they relate.

**Uncertain income tax positions:** The Group has adopted the authoritative US GAAP guidance on accounting for, and disclosure of, uncertainty in income tax positions, which requires the Group to determine whether an income tax position of the Group is more likely than not to be sustained upon examination by the relevant tax authority. The application of this authoritative guidance has had no effect on the Group's financial statement.

**Technical Assistance Reserve:** Effective June 1, 2009, the Group commenced appropriating retained earnings to the Technical Assistance reserve. The amount to be credited to the reserve has been established by the Company's Board of Directors at 50% of the prior year investment income. The Company's Board of Directors has the discretion to eliminate or modify the basis of the appropriation in the future if it deems appropriate. The reserve was set up to fund special research projects such as the economic climate adaptation projects, scholarships in the field of climatology, certain marketing activities and ad-hoc donations. Expenses deemed to be "technical assistance" are transferred to retained earnings from the Technical Assistance reserve when such expenses are incurred.

**4. Cash and cash equivalents**

Cash and cash equivalents comprise:	<u>2010</u>	<u>2009</u>
Current and call accounts	8,044,502	12,144,286
Fixed term deposits	<u>-</u>	<u>5,682,943</u>
	<u>\$ 8,044,502</u>	<u>\$17,827,229</u>

Cash and cash equivalents are primarily held by one bank in the Cayman Islands and managed within guidelines established by the Board of Directors.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2010 AND 2009**

*(Expressed in United States dollars)*

**5. Investments**

All of the Group' investing activities are conducted through the Investment Fund, which is managed by an investment manager under an investment management agreement (see Note 1).

The following table summarizes the Group's investments in the Investment Fund that are measured at fair value at May 31, 2010:

	<b>Fair Value Measurements Determined Using:</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
	<b>inputs</b>	<b>inputs</b>	<b>inputs</b>	
Mutual funds	-	1,162	-	1,162
Corporate debt securities	-	69,302,960	-	69,302,960
Sovereign debt securities	9,543,931	-	-	9,543,931
Short term investments	<u>6,043,145</u>	-	-	<u>6,043,145</u>
	<u>15,587,076</u>	<u>69,304,122</u>	-	<u>84,891,198</u>

The following table summarizes the Group's investments in the Investment Fund that are measured at fair value at May 31, 2009:

	<b>Fair Value Measurements Determined Using:</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
	<b>inputs</b>	<b>inputs</b>	<b>inputs</b>	
Mutual funds	-	7,763,862	-	7,763,862
Corporate debt securities	-	31,639,729	-	31,639,729
Sovereign debt securities	10,614,396	-	-	10,614,396
Short term investments	<u>3,156,443</u>	-	-	<u>3,156,443</u>
	<u>\$ 13,770,839</u>	<u>\$ 39,403,591</u>	<u>\$ -</u>	<u>\$ 53,174,430</u>

At May 31, 2010, approximately 29% and 25% (2009: 36% and 16%) of the debt securities were issued by counterparties in the United Kingdom and the United States, respectively. Most of the remaining debt securities were issued by counterparties in various other European countries. Approximately 52% (2009: 92%) of the debt securities had a credit rating of A- or higher and the remaining 48% (2009: 8%) were rated BBB or higher. The debt securities portfolio had an average maturity of approximately 4 years (2009: 3 years) from May 31, 2010.

Short term investments consist of cash held with the investment manager, term deposits and margin call accounts (see Note 10). Also included in short term investments, are amounts denominated in British Pound Sterling of \$1,300,416 (2009: \$331,463), Euros of \$1,483,893 (2009: \$762,437) and Australian dollars of \$32,248 (2009: nil). The margin call accounts are restricted cash balances required to be posted with respect to the futures contracts (see Note 3 and 10).

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

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*(Expressed in United States dollars)*

**6. Multi Donor Trust Fund**

The CCRIF Trust Fund (hereinafter referred to as the “Multi Donor Trust Fund” or “Donor Trust”), was created by the World Bank as part of a grant agreement with the Company. Under this arrangement, the World Bank has established a grant framework to assist the Company financially in its operations. Costs reimbursable under the grant agreement include certain:

- (a) professional service fees, administrative fees, banking initiation fee, and registration fees, including related travel expenses which are incurred by the Company in connection with the establishment of the program;
- (b) administrative fees, professional fees, audit costs, exchange rate costs, banking fees, reinsurance premiums, and remuneration and travel expenses of board members of the Company;
- (c) insurance payouts of the Company, to the extent that such payouts are not covered by any reinsurance purchased by the Company (see Note 3); and
- (d) such other operational expenses of the Company agreed with the World Bank.

The Donor Trust has an expected life of 5 years, starting in 2007, which is extendable upon negotiations between the World Bank and the donors to the Donor Trust. At the termination of the grant arrangement, the reimbursements will cease. Any unused funding at the date of termination will no longer be available to the Group.

During the years ended May 31, 2010 and 2009, the following costs were reimbursed and/or reimbursable by the Donor Trust:

	<u>2010</u>	<u>2009</u>
Expenses on parametric reinsurance contracts	8,620,468	9,277,106
Claims paid on parametric contracts	7,753,579	6,303,913
Directors’ fees and expenses	317,973	55,914
Facility management fees and expenses	797,325	384,100
Other allowable recurring expenditure	<u>348,962</u>	<u>-</u>
	<u>\$17,838,307</u>	<u>\$ 16,021,033</u>

At May 31, 2010 and 2009, the following cost reimbursements were due from the Donor Trust:

	<u>2010</u>	<u>2009</u>
Expenses on parametric contracts	-	6,350,625
Directors’ fees and expenses	90,065	84,815
Facility management fees and expenses	257,933	384,100
Other allowable recurring expenditure	<u>106,350</u>	<u>-</u>
	<u>\$ 454,348</u>	<u>\$6,819,540</u>

At May 31, 2010, prior to settlement of the above outstanding reimbursements of \$454,348 (2009: \$6,819,540), \$28,053,487 (2009: \$51,829,665) was available from the Donor Trust to finance future reimbursable costs of the Group during the remaining period of the arrangement described above, of which \$7,225,918 (2009: \$31,429,417) represents funds committed to the Facility via the grant agreement and the balance of \$20,827,569 (2009: \$20,400,248) represents funds in the Donor Trust not yet granted to the Group but that may be transferred to the Group in future amendments to the grant agreement.

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**7. Accounts payable and accrued expenses**

Accounts payable comprises accruals for expenses at year end. Included within accounts payable is an amount of \$209,144 relating to technical assistance expenses incurred (see Note 3).

**8. Income from parametric contracts received in advance**

Income from parametric contracts received in advance represents amounts paid by Participating Countries with respect to the 2010/11 policy during the year ended May 31, 2010 (2009: amounts paid with respect to the 2009/10 policy during the period ended May 31, 2009).

**9. Participation fees deposits**

Participating fee deposits represent non-recurring amounts required to be paid by each Participating Country to enter the program. The deposits are equivalent to the annual premiums written in respect of each Participating Country. It is Management's intent that participation fee deposits are available to fund losses in the event that funds from retained earnings, reinsurers and the Donor Trust (see Note 6) are insufficient. If deposits are used to fund losses, it is also Management's intent that any subsequent earnings generated by the Group will be used to reinstate the deposits to their original carrying value. The participation fees are refundable, without interest, in the event that the Group does not renew the coverage to participating countries. Participation fees are not refundable if a Participating Country leaves the program for more than one year in any five year period, and would be recognized as income at that point. Participating Countries, who leave the program resulting in participation fees being voided, may, at the discretion of the Directors, be required to repay participation fees if they want to rejoin the program subsequently. During the year ended May 31, 2010, the Board of Directors approved a modification to the participation agreements such that up to 50% of the participation fees deposits paid by the Participating Countries could be used towards their respective 2010/2011 premiums and subsequent to May 31, 2010, some Participating Countries elected to use a proportion of their participation fees deposits to partially settle their 2010/2011 premiums.

**10. Derivative instruments**

Effective June 1, 2009, the Group adopted amendments to authoritative guidance on disclosures about derivative instruments and hedging activities which amends and expands the disclosure requirement related to derivative instruments, to provide users of financial statements with an enhanced understanding of the use of derivative instruments and how these derivatives affect the financial position, financial performance and cash flows of the Group. This Statement requires qualitative disclosures about the objectives and strategies for using derivative instruments, quantitative disclosures about the fair value of, and gains and losses on, derivative instruments, as well as disclosures about credit-risk-related contingent features in derivative agreements. The Group does not designate its derivatives as hedging instruments.

The new standard adopted enhances the disclosure requirements for derivative instruments and related hedging activities and thus, the adoption of the standard had no impact on the balance sheets, statements of operations, statements of changes in shareholder's equity or the statements of cash flows.

The Group transacts in a variety of derivative instruments including futures, forwards, swaps and options with each instrument's primary risk exposure being interest rate, credit, foreign exchange, equity or commodity risk. The fair value of these derivative instruments is included as a separate line item in the balance sheets with changes in fair value reflected as net change in unrealized gains/ (losses) on derivatives within investment income in the statements of operations (see Note 13).

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**10. Derivative instruments (continued)**

The following table indicates the net gains and losses on derivatives, by contract type, as included in investment income in the statement of operations (see Note 13):

	<b><u>2010</u></b>
Commodity and equity contracts	\$ 186,250
Credit contracts	498,741
Foreign exchange contracts	<u>4,067,325</u>
<b>Total</b>	<b><u>\$ 4,752,316</u></b>

**Credit default swap transactions**

The buyer of a CDS is generally obligated to pay the seller a periodic stream of payments over the term of the contract in return for a contingent payment upon the occurrence of a credit event with respect to an underlying reference obligation. Generally, a credit event for corporate or sovereign reference obligations means bankruptcy, failure to pay, obligation acceleration, repudiation/moratorium or restructuring. For CDSs on asset-backed securities, a credit event may be triggered by events such as failure to pay principal, maturity extension, rating downgrade or write-down. If a credit event occurs, the seller typically must pay the contingent payment to the buyer, which is typically the par value (full notional value) of the reference obligation, though the actual payment may be mitigated by terms of the agreement, allowing for netting arrangements and collateral. After a credit event occurs, this amount may be reduced by anticipated recovery rates, segregated collateral and netting arrangements that may incorporate multiple transactions with a given counterparty.

The contingent payment may be a cash settlement or a physical delivery of the reference obligation in return for payment of the face amount of the obligation. If the Group is a buyer and no credit event occurs, the Group may lose its investment and recover nothing. However, if a credit event occurs, the buyer typically receives full notional value for a reference obligation that may have little or no value. As a seller, the Group receives a fixed rate of income throughout the term of the contract, provided that no credit event occurs. If a credit occurs, the seller may pay the buyer the full notional value of the reference obligation.

There were no open/unsettled CDSs at May 31, 2010 and 2009. During the year ended May 31, 2010, the Group had total notional exposure of approximately \$200 million in CDS contracts, the vast majority as a buyer of protection (“receiving protection”). Where the Group was providing protection, the maximum exposure in any one month was approximately \$5 million. The notional amounts approximate the maximum potential amount of future payments that the Group could be required to make if the Group were the seller of protection (or receive if the Group were a buyer of protection) if the respective credit events were to occur. During the year ended May 31, 2010, the Group realized gains of \$4,269,108 and incurred losses of \$3,770,367 in CDS transactions.

Investments in other derivatives fluctuated throughout the year. The maximum exposures in any one month were as follows:

- Commodity contracts: below \$100,000
- Equity contracts: \$350,000
- Foreign exchange contracts: \$53 million

The positions held in forward and futures contracts at May 31, 2010, are reflective of the average positions held in forward and futures contracts during the year.

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**10. Derivative instruments (continued)**

As at May 31, 2010, the Group had the following outstanding forward foreign currency and futures contracts:

	<u>Expiry date</u>	<u>Notional value</u>	Fair Values at May 31, <u>2010</u>
Canadian Dollar forward (bought CAD\$ sold US\$)	June 25, 2010	CAD\$2,500,000 (at forward rate of CAD\$0.951565: US\$1)	\$ ( 1,796)
United States Dollars forward (bought US\$ sold £)	June 25, 2010	\$20,367,060 (at forward rate of US\$1.4343: £1)	(164,926)
United States Dollars forward (bought US\$ sold CAD)	June 25, 2010	\$2,308,829 (at forward rate of US\$0.923532: CAD\$1)	( 68,295)
United States Dollars forward (bought US\$ sold €)	June 25, 2010	\$27,845,460 (at forward rate of US\$1.2321: €1)	( 31,292)
Euro-Bund future	June 8, 2010	\$3,850,800	( 5,179)
Euro-Bund future	June 8, 2010	\$4,364,240	( 5,870)
British Gilt future	September 28, 2010	\$3,566,100	(19,952)
			\$ ( <u>297,310</u> )

As at May 31, 2009, the Group had the following outstanding forward foreign currency and futures contracts:

	<u>Expiry date</u>	<u>Notional value</u>	Fair Values at May 31, <u>2009</u>
British Pound Sterling forward (bought £ sold US\$)	June 2, 2009	£1,450,000 (at forward rate of US\$1.5027: £1)	\$ <u>159,274</u>
United States Dollars forward (bought US\$ sold £)	June 2, 2009	\$10,580,339 (at forward rate of US\$1.5106: £1)	( 714,025)
United States Dollars forward (bought US\$ sold €)	June 2, 2009	\$12,964,228 (at forward rate of US\$1.3381: €1)	( 749,298)
			\$( <u>1,463,323</u> )

At May 31, 2010, the Group held securities denominated in foreign currencies with a fair value of \$20,106,304, \$12,995,152, \$779,974, \$362,022, \$412,084 and \$407,993 relating to the Euros, British Pound Sterling, Australian dollar, Brazilian real, Russian Ruble and Turkish Lira, respectively. See Note 5 regarding short-term investments denominated in foreign currencies. The Group uses forward and futures contracts to increase/decrease exposure against foreign currency risks.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

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*(Expressed in United States dollars)*

**11. Share capital, share premium and technical assistance reserve**

	<u>2010</u>	<u>2009</u>
Authorized:		
50,000 shares of \$1 each	\$ <u>50,000</u>	\$ <u>50,000</u>
Issued and fully paid:		
1,000 shares of \$1 each	1,000	1,000
Share premium	<u>119,000</u>	<u>119,000</u>
	\$ <u>120,000</u>	\$ <u>120,000</u>

The share premium account represents the excess of the proceeds from issued share capital over the par value of the shares issued. The share premium account was established in accordance with the Cayman Islands Companies Law, which restricts the uses of these reserves.

Pursuant to the Company's Articles of Association, the Directors may declare and authorize payment of dividends out of profits of the Company. Payment of any dividends is subject to approval by the Cayman Islands Monetary Authority ("CIMA").

Under the Cayman Islands Insurance Law the Company is required to maintain a minimum net worth of US\$120,000.

CIMA has statutory powers that enable it to use its discretion to require the Company to conduct its operations in accordance with general or specific conditions which may be imposed by CIMA or may be agreed between CIMA and the Company. Generally, such matters are set out in the Business Plan which the Company files with CIMA and, amongst others, includes reference to the risks assumed and retained by the Company, the funding and capitalization levels, and the Company's investment policies.

The technical assistance reserve at May 31, 2010 of \$480,575 represents unused funding available to the Company only for approved "technical assistance" expenses. (See Note 3)

**12. Claims paid**

Claims paid in the year ended May 31, 2010 relate to an earthquake (2009: hurricane) which triggered a claim payment to a Participating Country in January 2010 (2009: September 2008).

**13. Investment Income**

Investment income comprises:

	<u>2010</u>	<u>2009</u>
Investment income received	2,715,588	1,349,677
Change in fair value of investments	(6,808,221)	2,392,265
Net gain/(loss) on sale of investments	3,313,403	(1,012,599)
Investment management, custody and fund administration fees	( 946,730)	( 549,369)
Foreign exchange gains	421,448	279,102
Net realized gains/(losses) on derivative instruments	3,745,577	1,423,913
Net unrealized gains/(losses) on derivative instruments	<u>1,006,739</u>	<u>(1,285,401)</u>
	\$ <u>3,447,804</u>	\$ <u>2,597,588</u>

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**14. Administration expenses**

Administration expenses comprise:

	<u>2010</u>	<u>2009</u>
Audit and other professional fees	42,000	44,500
Captive management fees	100,000	100,000
Consultancy fees	174,844	215,467
Directors' fees	48,000	18,000
Executive Director's fees	150,000	135,920
Directors' and Officers' insurance	25,000	31,775
Legal fees	3,507	2,898
Government fees	10,386	9,720
Meeting expenses	93,115	77,491
Publicity	174,753	95,742
Trust expenses (see Note 15)	34,750	43,000
Charitable donation to UNESCO	-	100,000
Sundry expenses and bank charges	<u>4,320</u>	<u>3,348</u>
	<u>\$ 860,675</u>	<u>\$ 877,861</u>

**15. Related party transactions**

During the year ended May 31, 2010 and 2009, the Group incurred the following expenses on behalf of the Trust:

	<u>2010</u>	<u>2009</u>
Trustee fees	24,750	33,000
Enforcer fees	<u>10,000</u>	<u>10,000</u>
	<u>\$ 34,750</u>	<u>\$ 43,000</u>

**16. Taxation**

No income, capital or premium taxes are levied in the Cayman Islands and the Company has been granted an exemption until May 29, 2027, for any such taxes that might be introduced. The Group intends to conduct its affairs so as not to be liable for taxes in any other jurisdiction. Accordingly, no provision for taxation has been made in these financial statements.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

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*(Expressed in United States dollars)*

**17. Certain risks**

**(a) Geographical concentration of risk**

The Group's principal activity comprises parametric catastrophe risk coverage for Participating Countries in the Caribbean region. Accordingly, the Group's risks are not geographically diversified.

**(b) Fair value**

The carrying amount of the Group's financial assets and liabilities, excluding investments, approximate their fair value due to their short term maturities. Investments and derivative instruments are carried at fair value as described in Notes 3, 5 and 10.

**(c) Credit risk**

Financial assets which potentially subject the Group to concentrations of credit risk consist of cash and cash equivalents, investments in debt instruments, futures and forward contracts, accrued interest receivable and the balance receivable from the Multi Donor Trust Fund. The maximum amount of loss the Group would incur if the counterparties to the transactions do not meet their obligations, would be the carrying amount of such assets in the balance sheet. The Group's cash and cash equivalents and investments are placed with or held in custody by high credit quality financial institutions. Similarly, the Group's investment policy requires that the investment manager invests in securities with a high credit quality (see Note 5). See Note 6 for details of amounts due from the balance due from the Multi Donor Trust Fund. Options, swaps, futures and forward contracts are subject to the credit risk of the respective counterparties. The Group manages this credit risk by transacting only with counterparties considered highly reputable and creditworthy.

**(d) Interest rate risk**

The Group invests in fixed interest securities, the fair value of which will be affected by movements in interest rates. An analysis of the Group's investment portfolio is shown in Note 3. The fair value of the forward and futures contracts may also be affected by movements in interest rates.

**(e) Market risk**

Market risk exists to the extent that the values of the Group's monetary assets fluctuate as a result of changes in market prices. Changes in market prices can arise from factors specific to individual securities or their respective issuers, or factors affecting all securities traded in a particular market. Relevant factors for the Group are both volatility and liquidity of specific securities and of the markets in which the Group holds investments.

**(f) Liquidity risk**

Liquidity risk exists to the extent that the Company may not be able to access cash and/or redeem its investments in the Investment Fund on a timely basis to settle losses. The frequency of redemption of the Investment Fund is monthly and subject to appropriate notice period. The Investment Fund is also subject to liquidity risk to the extent that certain securities may be thinly traded. The Group mitigates liquidity risk by maintaining a proportion of assets in cash and short-term investments.

**(g) Foreign exchange risk**

In the normal course of business, the Group may hold assets and liabilities in currencies other than U.S. dollars. To reduce its risk to foreign exchange fluctuations the Group may enter forward on the foreign exchange contracts. The Group is exposed to currency risks to the extent of any mismatch between foreign exchange forward contracts and the corresponding financial instruments denominated in foreign currencies. Foreign currency forward contracts commit the Group to purchase or sell the designated foreign currency at a fixed rate of exchange on a future date. See Note 10 for details of forward foreign exchange contracts entered into by the Group during the period.

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**17. Financial instruments (continued)**

**(h) Futures contracts risk**

In the normal course of business, the Group trades financial futures, which are carried at fair value. These futures contracts represent future commitments to purchase financial instruments on specific terms at specified future dates. The fair value of the futures contracts will fluctuate corresponding to the fair value of the underlying financial instruments (see Note 10). The notional value of the underlying financial instruments represents the Group's maximum risk of loss. The Directors consider this risk to be mitigated because of the short terms of the futures contracts and the underlying financial instruments being investment grade.

**(i) Swaps**

The Group enters into swap contracts to increase or decrease its exposure to changes in the level of interest rates and credit risk. The Group uses CDSs to provide protection against or gain speculative exposure to defaults of sovereign or corporate issuers (i.e. to reduce risk where the Group owns or has exposure to the issuers) or to take an active long or short position with respect to the likelihood of a particular issuer's default.

CDSs involve greater risks than if the Group had invested in the reference obligation directly. In addition to general market risks, CDSs are subject to liquidity risk and counterparty credit risk. The Group enters into CDSs with counterparties meeting certain criteria for financial strength. A buyer also may lose its investment and recover nothing should a credit event not occur. If a credit event did occur, the value of the reference obligation received by the seller, coupled with the periodic payments previously received, may be less than the full notional value it pays to the buyer, resulting in a loss of value.

In connection with equity swap contracts, cash or securities may be posted to or received from the swap counterparty in accordance with the terms of the swap contract. The Group earns or pays interest on cash posted or received as collateral.

Off-balance sheet risks associated with all swap contracts involve the possibility that there may not be a liquid market for these agreements, that the counterparty to the contract may default on its obligation to perform and that there may be adverse changes in currency rates, credit status, market prices and interest rates. Notional principal amounts are presented in Note 10 to indicate the extent of the Group's involvement in such investments.

**(j) Options**

The Group may purchase and sell ("write") options on securities, currencies and commodities on national and international exchanges and OTC markets. The buyer of a put option assumes the risk of losing its entire investment in the put option. If the buyer of the put option holds the underlying instrument, the loss on the put option will be offset, in whole or in part, by any gain on the underlying instrument. The buyer of a call option assumes the risk of losing its entire investment in the call option. If the buyer of the call option sells short the underlying instrument, the loss on the call option will be offset, in whole or in part, by any gain on the short sale of the underlying instrument. The seller of a put/call option assumes the risk of an increase/decline in the market price of the underlying instrument, plus/less the premium received and gives up the opportunity for gain on the underlying instrument below/above the exercise price of the option.

**18. Subsequent events**

Management have performed a subsequent events review through August 23, 2010, being the date that the financial statements were available to be issued. Other than as disclosed in Note 9, management concluded that there were no subsequent events which required additional disclosure in these financial statements.

# CCRIF

The Caribbean Catastrophe Risk Insurance Facility



**CARIBBEAN  
CATASTROPHE  
RISK INSURANCE  
FACILITY**

## **The Caribbean governments' insurance fund for hurricanes and earthquakes**

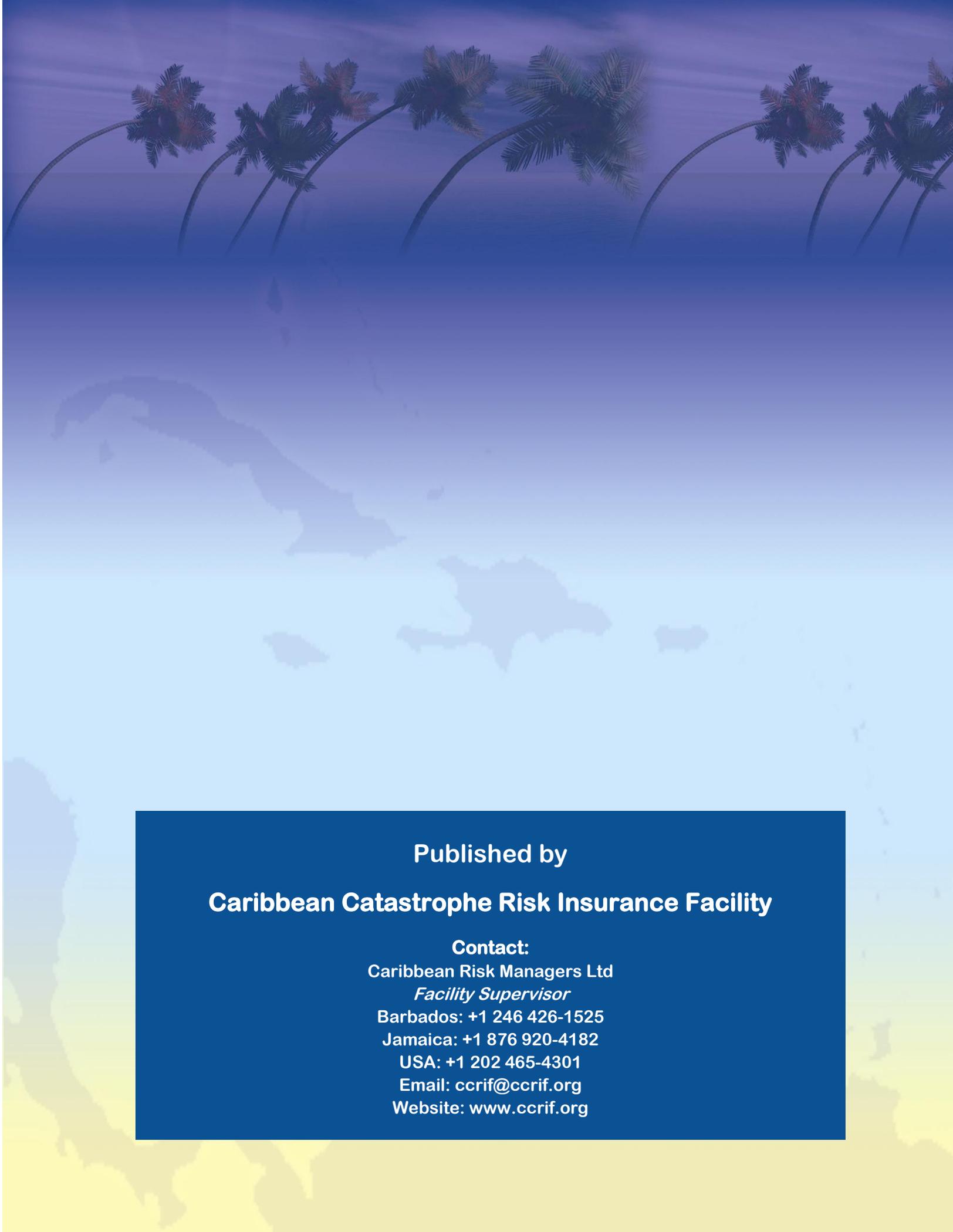
### **VISION STATEMENT**

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

### **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.*

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



**Published by**  
**Caribbean Catastrophe Risk Insurance Facility**

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