

# CCRIF

The Caribbean Catastrophe Risk Insurance Facility



2011 - 2012



# Annual Report

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

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# CCRIF ANNUAL REPORT 2011-12

## **Published by:**

Caribbean Catastrophe Risk Insurance Facility  
Harbour Place, 1<sup>st</sup> Floor  
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Cayman Islands

**September 2012**

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An interactive version of the report is available on the CCRIF website (<http://ccrif.org/AnnualReport2011.html>). This interactive version contains links to other CCRIF reports and other sources with more information on CCRIF activities than are highlighted in this report.

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# LIST OF ACRONYMS

BMU	German Federal Ministry of the Environment and Nuclear Safety
BVI	British Virgin Islands
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
CDEMA	Caribbean Disaster Emergency Management Agency
CDB	Caribbean Development Bank
CDM	Comprehensive Disaster Management
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
CIMA	Cayman Islands Monetary Authority
CIMH	Caribbean Institute for Meteorology and Hydrology
DMS	Document Management System
ECA	Economics of Climate Adaptation
FY	Fiscal Year
GDP	Gross Domestic Product
GEM	Global Earthquake Model
IDP	International Development Partner
IISD	International Institute for Sustainable Development
IKI	International Climate Initiative
ISructE	Institution of Structural Engineers
JAXA	Japan Aerospace Exploration Agency
KAC	Kinetic Analysis Corporation
MCII	Munich Climate Insurance Initiative
MoU	Memorandum of Understanding
MPRES	Multi-Peril Risk Estimation System
NASA	United States National Aeronautics and Space Administration
NHC	United States National Hurricane Center
NOAA	National Oceanic and Atmospheric Administration
OECS	Organisation of Eastern Caribbean States
PR	Public Relations
RTFS	Real-Time Forecasting System
SRC	Seismic Research Centre (University of the West Indies, St Augustine, Trinidad)

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TA	Technical Assistance
TRMM	Tropical Rainfall Measurement Mission
UK	United Kingdom
UN	United Nations
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
US	United States
USA	United States of America
USGS	United States Geological Survey
UTC	Coordinated Universal Time
UWI	University of the West Indies
WFCP	World Forum of Catastrophe Programmes
XSR	Excess Rainfall





# About CCRIF

*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 Facility: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, St. Kitts & Nevis, Saint Lucia, St. Vincent & the Grenadines, Trinidad & Tobago and Turks & Caicos Islands.*

*CCRIF therefore helps to mitigate the short-term cash flow problems small developing economies suffer after major natural disasters. A critical challenge is often the need for short-term liquidity to maintain essential government services until additional resources become available. CCRIF represents a cost-effective way to pre-finance short-term liquidity to begin recovery efforts for an individual government after a catastrophic event, thereby filling the gap between immediate response aid and long-term redevelopment.*

*Since the inception of CCRIF in 2007, the Facility has made eight payouts totalling US\$32,179,470 to seven member governments. All payouts were transferred to the respective governments less than a month (and in some cases within a week) after each event. These payouts are shown in the table below.*

<b>Event</b>	<b>Country Affected</b>	<b>Payouts (US\$)</b>
Earthquake, 29 November, 2007	Dominica	528,021
Earthquake, 29 November, 2007	Saint Lucia	418,976
Tropical Cyclone Ike, September 2008	Turks and Caicos Islands	6,303,913
Earthquake, 12 January, 2010	Haiti	7,753,579
Tropical Cyclone Earl, August 2010	Anguilla	4,282,733
Tropical Cyclone Tomas, October 2010	Barbados	8,560,247
Tropical Cyclone Tomas, October 2010	Saint Lucia	3,241,613
Tropical Cyclone Tomas, October 2010	St. Vincent and the Grenadines	1,090,388
<b>Total for the Period 2007 - 2011</b>		<b>US\$32,179,470</b>



# STRATEGIC FRAMEWORK

## VISION

A Caribbean region with optimised disaster risk management and climate change adaptation practices supporting long-term sustainable development

## MISSION

To assist Caribbean governments and their communities in understanding and reducing the socio-economic and environmental impacts of natural catastrophes. We do this by providing immediate liquidity through a range of affordable insurance products, developing innovative and dynamic tools and services, and operating in a way that is financially sustainable and responsive to the needs of the region

## VALUE PROPOSITION

CCRIF promises its clients to:

Fill a gap in available insurance offerings in natural catastrophes

Give peace of mind and confidence regarding financial support

Supply tools for enhanced disaster risk management

Charge lowest possible premiums consistent with long-term sustainability as a joint reserve mechanism

Ensure speedy payout when a policy is triggered

Be transparent and accountable

# STRATEGIC OBJECTIVES

CCRIF's strategic objectives are designed to enable the Facility to fulfil its mission and realise its vision and to aid in the design of its strategic initiatives and key activities. CCRIF's strategic objectives have been designed to be SMART (specific, measurable, achievable, realistic, and

timebound) to enable the Facility to continuously meet and exceed the needs and expectations of its clients and stakeholders. Over the period 2013 to 2015, CCRIF will endeavour to achieve the following strategic objectives:



# CHAIRMAN'S REPORT

This annual report represents the fifth that CCRIF has produced since the Facility came into being in 2007. I am pleased to present the 2011-12 CCRIF Annual Report that summarises the Facility's results over the period and demonstrates its contribution to reducing the socio-economic and environmental impacts of natural catastrophes in the Caribbean Region.

As an organisation, CCRIF undertook activities towards maintaining the transparent and efficient operations of the Facility. The Facility spent some time over this year expanding its management framework for sustained growth that addresses both decision making and governance with a focus on high-quality internal controls to enhance efficiencies and to reduce the risk of business interruption.

To this end, the Board engaged in a range of activities including review of the Facility's corporate governance procedures as well as engaging in discussions related to business continuity of CCRIF through to 2015. These discussions included a focus on membership of the Board, diversification of knowledge and duties within CCRIF, and starting the recruitment process for a dedicated Chief Executive Officer for the Facility.

Towards the end of the policy year the CCRIF Board and Team engaged in a two-day strategic planning retreat to chart the future of the Facility for a further three years (2013 to 2015). This strategic retreat was



informed by a stakeholder analysis which was prepared using information we obtained through a beneficiary assessment of CCRIF undertaken by the World Bank in June 2011. The stakeholder analysis expanded on the results of the beneficiary assessment and examined, based on members' and stakeholders' views, whether CCRIF is meeting the needs of its members and stakeholders, and achieving its vision and mission.

Our new strategic plan builds on the previous one and is much sharper in focus. In this strategic planning exercise we were able to better refine both our vision and mission statements as well as our customer value proposition and these new statements are reflected in this annual report.

In the next three years we will be expanding our products - to include an excess rainfall product - and our services - to include expanded technical assistance projects to the

governments as part of our role in comprehensive disaster management. Our new strategic plan will help us facilitate this.

This year saw Dr Warren Smith, the new president of the Caribbean Development Bank (CDB), resigning from the Board due to his new responsibilities. Ms Faye Hardy, Manager of the Treasury Unit at the CDB, joined the Board in June 2011.

With respect to our members, I am happy to report that all sixteen CCRIF member countries renewed their Hurricane and Earthquake policies for 2011. For this policy year, members were again allowed to fund up to half of their premium with a portion of their paid-in Participation Fee. This is a continuation of the revised policy for members who have reached three continuous years of coverage with the Facility. The requirement for these countries was relaxed so that the paid-in Participation Fee need only be one half of the required premium. Several countries utilised this option, with funds going towards subsidising their premiums.

The 2011 Atlantic Hurricane Season was very active producing a total of 20 tropical systems – of which two affected seven member countries. However, modelled losses from both storms were below the attachment point (deductible) selected by each of the affected countries and therefore no policies were triggered for these events.

Likewise, over the period there were three earthquakes of magnitude 5.0 or 5.1

affecting three member countries, but none resulted in CCRIF policies being triggered.

This year also has been a very busy one for CCRIF as we continued to work with and assist our member countries in a number of key areas. These areas are highlighted below.

### **Highlights of the Fiscal Year 2011 - 2012**

CCRIF continued this year to work towards bringing an excess rainfall product to market. This product will be made available to certain countries during the next policy year. This excess rainfall product has been designed as a rainfall hedge rather than replicating actual loss from the various hazards related to heavy rainfall. We will continue to work with partners on a regional rainfall model as CCRIF believes that this will provide the best long-term platform for excess rainfall coverage.

This year we continued to implement a number of programmes and projects and forged new partnerships with key regional organisations. The programmes and projects that we implement are encapsulated as part of the CCRIF Technical Assistance Programme. I am happy to report that the Facility was able to launch its extra-regional scholarship programme which will allow us to provide scholarships to Caribbean students to study outside of the region in areas related to catastrophe risk management. Our scholarship programme with the University of the West Indies continued and between 2010 and this policy year, we have provided eleven scholarships.

Another important programme that we have begun to implement is the Climate Risk Adaptation and Insurance in the Caribbean Programme under the leadership of the Munich Climate Insurance Initiative, in collaboration with MicroEnsure, and funded by the German Environment Ministry – towards helping vulnerable people in the region adapt to extreme weather events.

Over the year, CCRIF continued to foster many positive partnerships and strategic alliances with a range of regional organisations. This year we signed three new memoranda of understanding - bringing the total number to six – all geared towards improvements in how the region manages natural hazard risk and adapts to climate change.

Within wider discussion and negotiations on climate change, CCRIF continues to be highlighted as an excellent working model of a multi-national and parametric-based catastrophe risk pool and is considered a viable template for expansion and/or replication globally as part of the overall climate change adaptation framework. Also, CCRIF is currently engaged in discussions

on loss and damage and examining the role that insurance can play as part of adaptation to climate change.

The achievements of the Facility continue to encourage other regions of the world to take a closer look at CCRIF and seek to emulate the construct of the Facility to meet their own needs. In fact, the African Risk Capacity project, which consists of a continental index-based weather risk insurance pool and early response mechanism, draws on the CCRIF model and experiences.

We look forward to working with our partners in the Caribbean in the new policy year and to continuing to contribute to the sustainable development of the region.



Milo Pearson  
Executive Chairman

# BOARD OF DIRECTORS



## **Milo Pearson, Executive Chairman**

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- nominated 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, Registrar of Insurance and Director of Finance, he is presently the Permanent Secretary in the Ministry of Finance, Economic Affairs, Planning and Social Security 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 Central Bank.



## **Ken Blakeley, CARICOM- nominated 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.



## **Desirée Cherebin, Caribbean Development Bank-nominated board member, finance specialist**

Desirée 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.



## **Faye Hardy, Caribbean Development Bank-nominated board member, representing donors**

Appointed to the CCRIF Board by the Caribbean Development Bank (CDB), Faye Hardy has over twenty years of experience in the areas of finance and accounting, and currently serves in the position of Manager, Treasury Unit at the Caribbean Development Bank where she has responsibility for managing the cash and investment resources of the Bank. She is a certified investment professional with a Chartered Financial Analyst (CFA) designation, as well as a Fellow of the Association of Chartered Certified Accountants (FCCA). She also holds an MBA from Heriot-Watt University in Scotland. She also has provided technical assistance and advice to other regional organisations, and regularly lends her expertise in a financial capacity to a variety of volunteer organisations.

# 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 and beyond. CaribRM is headed by Simon Young who is supported by the rest of the CaribRM technical team. CaribRM has offices in Barbados and Jamaica.

## 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.



## 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.



## GUY CARPENTER



## Guy Carpenter & Company, LLC, Reinsurance Broker

Guy Carpenter & Company, LLC joined the CCRIF Team as the new Placing Broker for the Facility in March 2011. Guy Carpenter is the world's leading risk and reinsurance specialist and a member of Marsh & McLennan Companies. With over 50 offices worldwide, Guy Carpenter creates and executes reinsurance solutions and delivers capital market solutions for clients across the globe. Aidan Pope is Guy Carpenter's team leader for CCRIF.



## Sagicor Insurance Managers Ltd, Insurance Manager

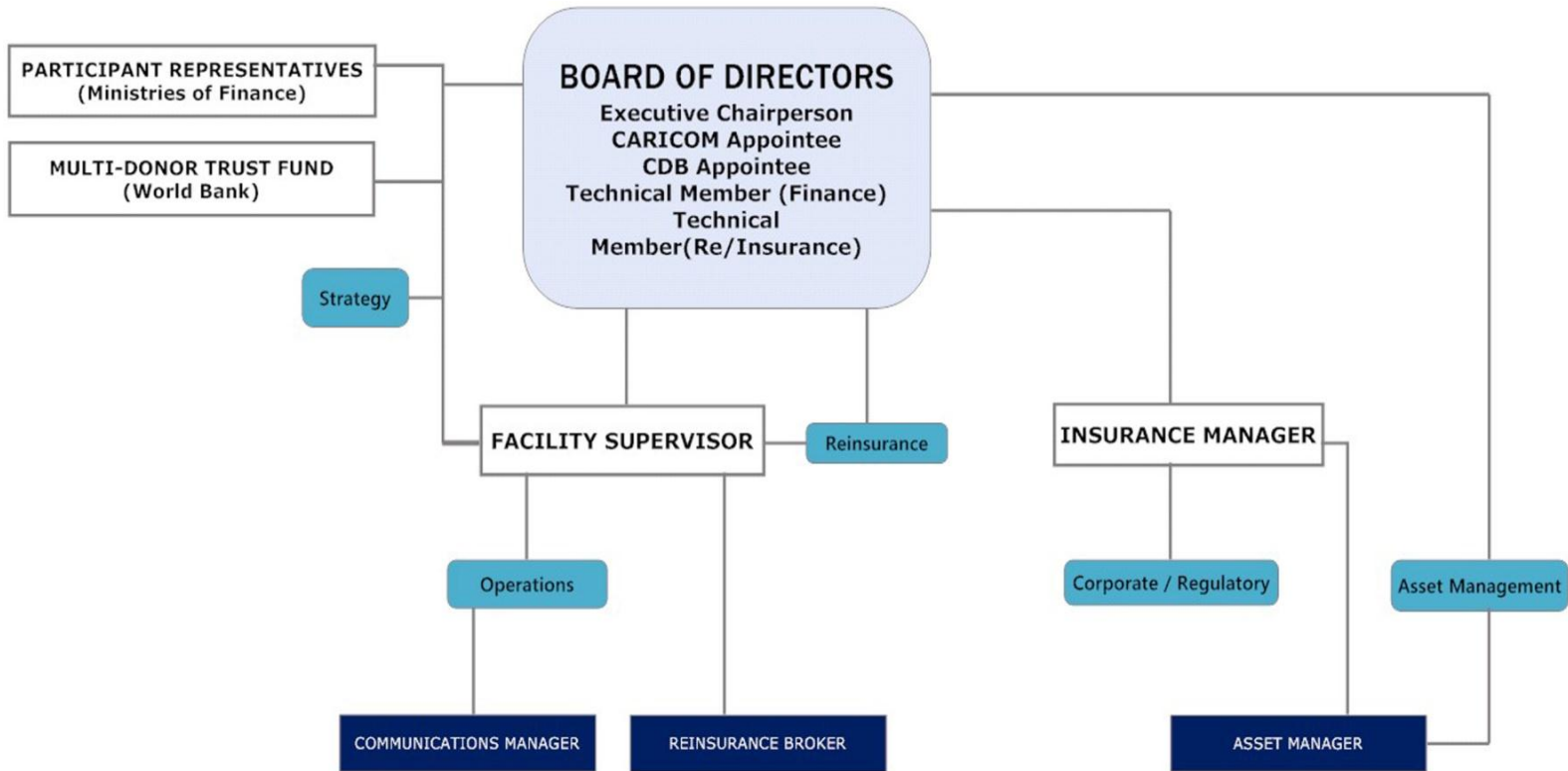
Sagicor Insurance Managers Ltd (SIM) is a member of the Sagicor Financial Group, which is listed on the Barbados, Trinidad & Tobago and London Stock Exchanges. Formed originally as Barbados Mutual in 1840, Sagicor has become the leading indigenous financial services organisation in the Caribbean, with 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.



## Sustainability Managers, Communications Manager

Sustainability Managers is a consultancy company based in Jamaica 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; strategic planning; and training. Elizabeth Emanuel and Gina Sanguinetti are Sustainability Managers' team leaders for CCRIF.

# CCRIF ORGANISATIONAL STRUCTURE



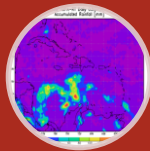




# CCRIF Year in Review 2011/12

- 20 tropical cyclones - 3 earthquakes - no CCRIF policies triggered over the 2011/12 policy year

## Tropical Cyclone and Earthquake Review



- Excess Rainfall Product - RTFS - Haiti Reconstruction - Geonode Mapping Platform

## CCRIF Product Developments



- Climate Risk Adaptation and Insurance in the Caribbean - 3 new MoUs signed - Extra-regional scholarships - ECA Project - Economics of Climate Adaptation

## Programmes, Projects and Partnerships



- 22 publications produced - hosted 6<sup>th</sup> meeting of the World Forum of Catastrophe Programmes - developed online training platform

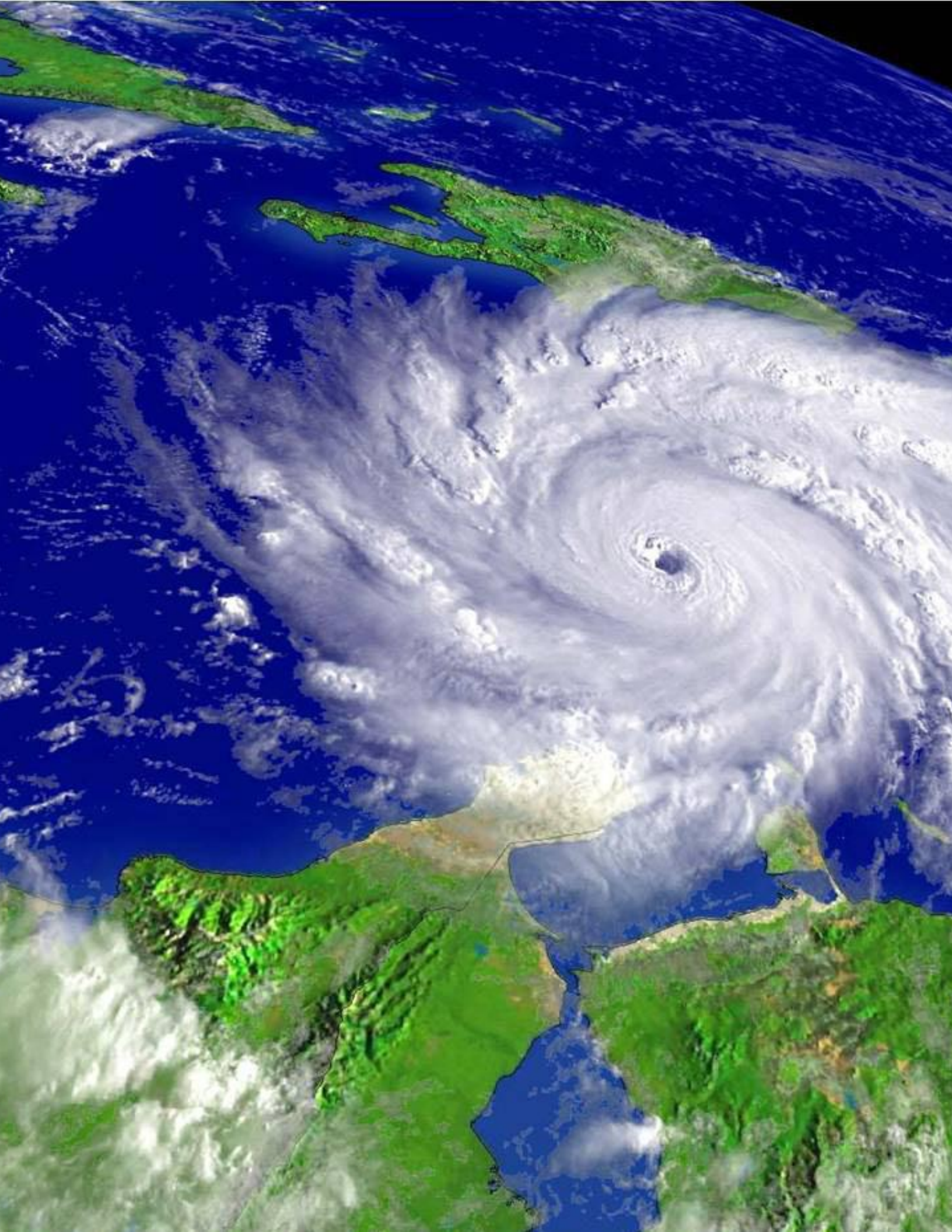
## Communications, Publications and Public Relations



- CCRIF issued 29 annual policies to 16 CARICOM countries

## CCRIF's Financial Stability





## Tropical Cyclone and Earthquake Review

CCRIF monitors and reports on all tropical cyclone and earthquake activities in the Caribbean Basin that have 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 below for definitions of triggering and non-triggering events).

The 2011 Atlantic Hurricane Season was

very active with a total of 20 tropical systems – of which two affected seven member countries. No CCRIF policies were triggered for these events. Also, over the period there were three earthquakes of magnitude 5.0 or 5.1 affecting three member countries but not resulting in their CCRIF policies being triggered. This section will present information on those five hazard events affecting CCRIF member states that qualified as reportable events.

### Triggering Event

***Tropical Cyclone:*** Any Tropical Cyclone event which produces a modelled government loss of greater than zero in one or more countries.

***Earthquake:*** Any earthquake event which produces a modelled government loss of greater than zero in one or more countries.

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

### Non - Triggering Event

***Tropical Cyclone:*** Any named Tropical Cyclone event which generates winds of Tropical Storm strength or above in one or more grid cells of at least one country but which does not produce any modelled government loss.

***Earthquake:*** Any earthquake event with a body-wave magnitude of greater than 4.5 within a box bounded by the following – Latitude 2° and 41° N Longitude 97° and 51° W – and which generates a peak ground acceleration of at least 0.01 g in one or more grid cells of at least one country but which does not produce any modelled government loss.

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

## Caribbean Catastrophe Events



### Hurricanes

The 2011 Atlantic Hurricane Season was very active producing a total of 20 tropical systems. There were 19 tropical storms, 7 of which intensified to hurricane strength and 3 became major hurricanes. Overall, the season was characterised by a large number of weaker tropical cyclones, with most not intensifying past tropical storm strength.

This activity during the season led to seven member countries experiencing two reportable events, with no policies being triggered as a result of these two storms. These two events (See Figure 1) will be further reviewed in the section “Review of Tropical Cyclone Events”.

### Storms in the 2011 Atlantic Hurricane Season

**Arlene, Bret, Cindy, Don, Emily, Franklin, Gert, Harvey, Irene, Tropical Depression 10, Jose, Katia, Unnamed Tropical Storm, Lee, Mara, Nate, Ophelia, Phillipe, Rina, Sean**

### Earthquakes

There was minimal seismic activity in member countries during the 2011/12 policy year. There were three earthquakes affecting

member countries of magnitude 5.0 or 5.1. These events will be further reviewed in the section “Review of Earthquake Events”.

## 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. The following two tropical cyclone events will be reviewed below:

- Harvey
- Irene

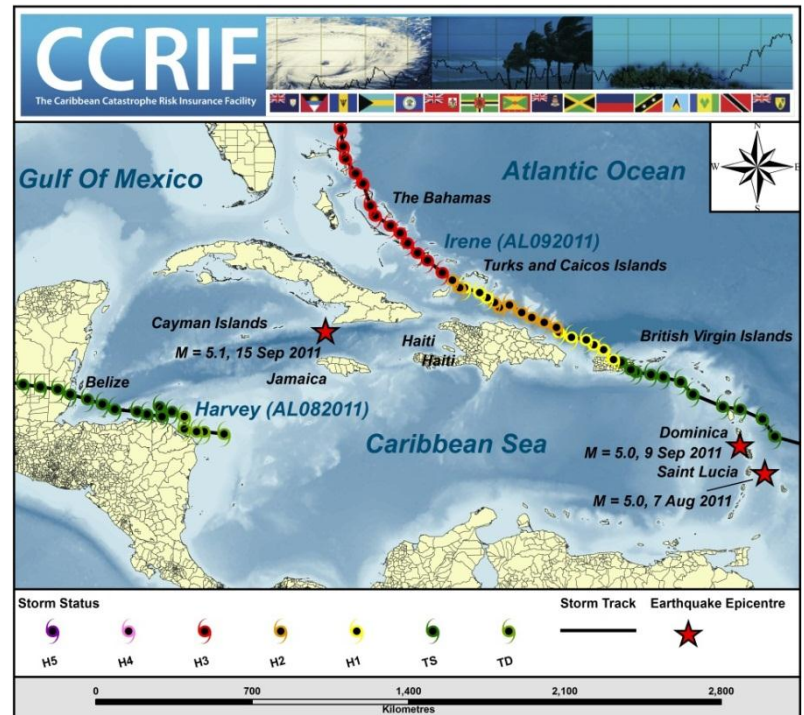


Figure 1: CCRIF reportable tropical cyclone events, 1 June 2011 – 31 May 2012  
Source: track data from NOAA-NHC, earthquake locations from USGS

## Tropical Cyclone Harvey

On 20 August 2011, Tropical Storm Harvey made landfall in Belize at approximately 1800 UTC, never having reached hurricane strength. As the storm moved over Belize, the eye passed 56 km south of Belize City and produced maximum sustained winds of approximately 95 km/hr (60 mph). When the eye moved past to the southwest of the capital, Belmopán, towards the northern regions of Guatemala, Harvey was showing signs of degradation as its maximum wind speeds fell to 80 km/hr (52 mph). Harvey continued to lose energy as it moved through the north of Guatemala until it was downgraded to a Tropical Depression at 1800 UTC on 21 August. Figure 2 shows the path of Tropical Cyclone Harvey from its inception to when it dissipated. Belize was the only CCRIF country affected by Harvey.

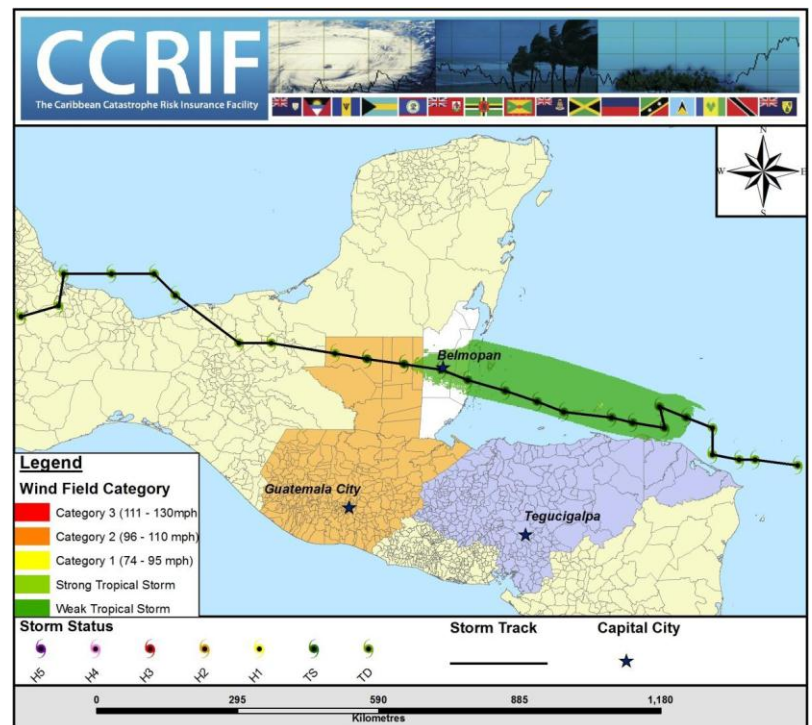


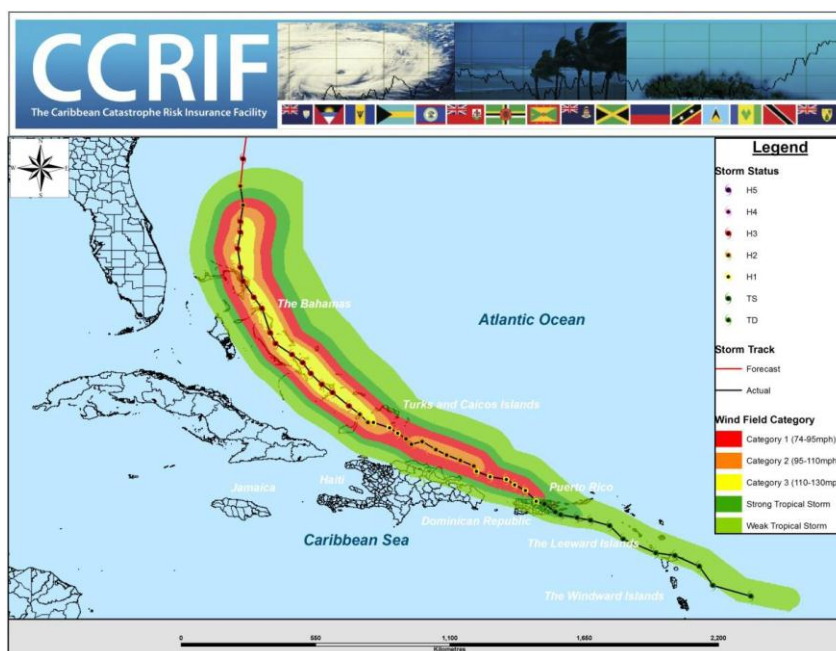
Figure 2: Map showing the path of Tropical Storm Harvey and the CCRIF model wind footprint. Sources: NHC & CCRIF/KAC MPRES

### Impact of Tropical Cyclone Harvey on Belize

On 20 August, there were a few reports of flash flooding in southern regions of Belize. Authorities received news of a few damaged homes and a church as well as damaged agricultural plots. By 21 August, no official word of significant wind damage to infrastructure had been reported. This was confirmed by Belize’s emergency services officials, who stated that the storm did not cause any loss of life or major infrastructural damage. After the storm, the general consensus was that this event had minimal impact on Belize’s overall economy.

### Tropical Cyclone Irene

Tropical Cyclone Irene was named as a Tropical Storm east of Dominica on 20 August 2011 and became a Hurricane on 22 August. The storm passed north of Dominica and through the Lesser Antilles south of the islands of Antigua, St Kitts, and Nevis, just brushing the uninhabited southern tip of Montserrat. Still a Tropical Storm, Irene passed directly over St Croix and reached Hurricane status as it crossed Puerto Rico. The storm then tracked offshore north of Hispaniola, mildly impacting the northern regions of Haiti and the Dominican Republic and reaching Category 2 status.



**Figure 3: Map showing the path of Hurricane Irene and the CCRIF model wind footprint. Sources: NHC & CCRIF/KAC MPRES**

By 23 August, Irene had passed by Hispaniola as a Category 1 storm before it passed west of the Turks & Caicos Islands and then northwestward and northward through the eastern parts of the Bahamian chain. As Irene moved through the Bahamas, it attained Category 3 status before passing about 100 km to the east of Nassau on 25 August. Figure 3 shows the path (up to 26 August) of Hurricane Irene along with the wind footprint from the Multi-Peril Risk Estimation System (MPRES), the CCRIF hazard/loss model. Irene achieved the minimum requirements of a defined event under CCRIF’s loss calculation protocol by having winds of greater than 39 mph in at least one member country.

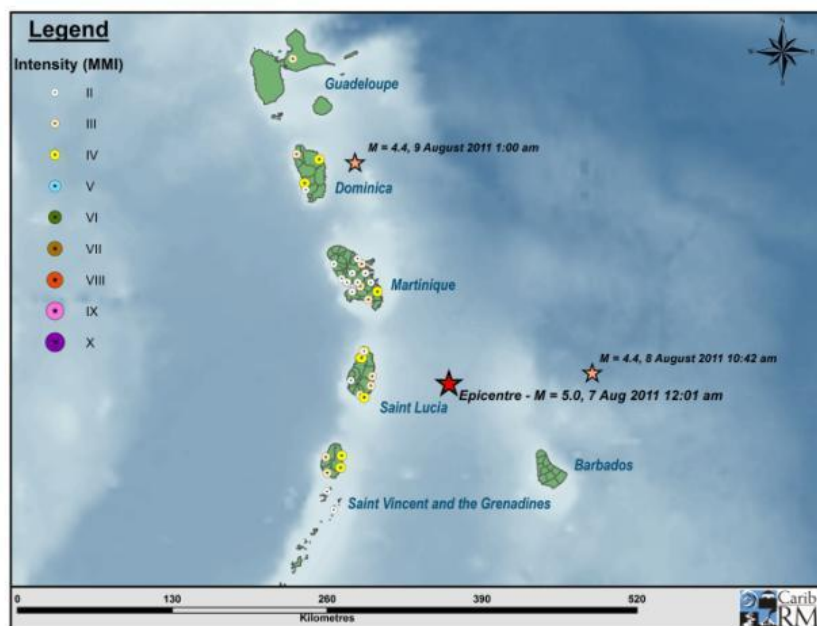
### Impact of Tropical Cyclone Irene on the Bahamas

The system had greatest impact on the less populated islands of the Bahamas chain, in particular Acklins/Crooked Island, Rum Cay/San Salvador, Cat Island, Eleuthera and the Abacos. The major tourist, economic and administrative centres on New Providence (Nassau), Paradise Island and Grand Bahama (Freeport) received only tropical storm force winds along with rain. The loss estimate from the CCRIF model was in keeping with the estimates made by the Bahamas Government, who reported low to moderate impacts.

## Review of Earthquake Events

### 7 August 2011, Saint Lucia Earthquake

A magnitude 5.0 earthquake occurred to the east of Saint Lucia at 12:01 am (04:01 am UTC) on 7 August 2011. Initial estimates from the US Geological Survey (USGS) located the epicentre of the event at 13.84°N, 60.31°W at a depth of 38 km. A model loss calculation by CCRIF for this event was necessary as the threshold for an eligible event under the 2011/12 policy is an event of magnitude 5.0 or greater.



*Figure 4: Map showing the distribution of felt shaking intensities across the Windward Islands following the magnitude 5.0 earthquake on 7 August, 2011.*

*Source: USGS*

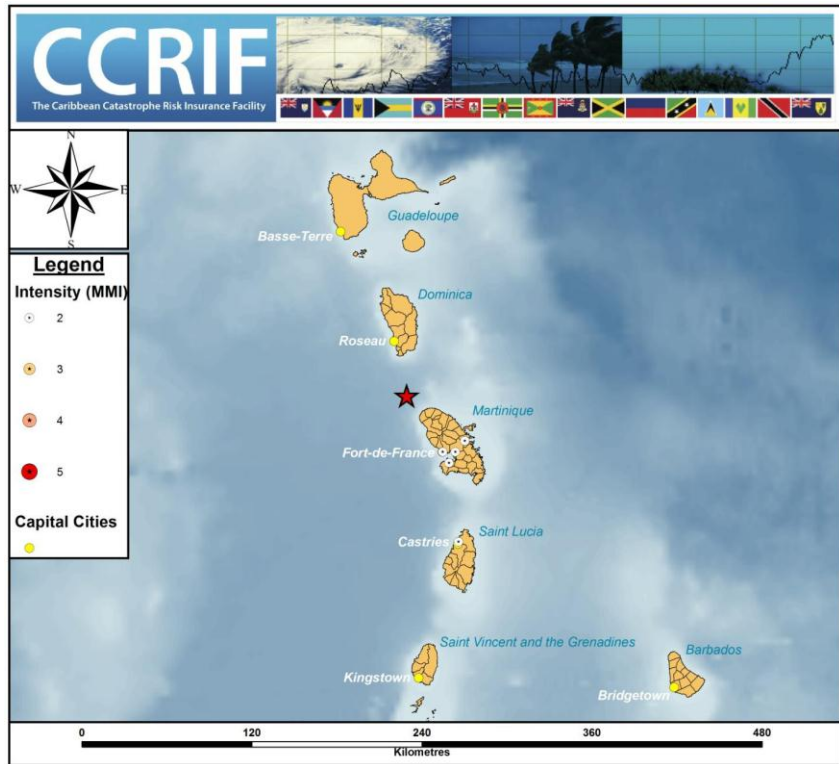
Reports emanating from the islands of Saint Lucia, St Vincent and Martinique confirm that shaking intensities ranging from II to IV on the Modified Mercalli Index were experienced onshore at these destinations (see Figure 4). Smaller events occurred in relatively close proximity to the above mentioned event, with a magnitude 4.5 aftershock occurring on 8 August 2011 and a magnitude 4.4 event to the east of Dominica on 9 August 2011. This earthquake did not generate a government loss in the CCRIF model and therefore did not trigger any payment from CCRIF. The result from the model is consistent with the lack of damage and with the level of shaking reported.



**9 September 2011, Earthquake affecting Dominica**

A magnitude 5.0 earthquake occurred in the offshore Martinique region of the Windward Islands on 9 September 2011 at 10:11:24 UTC. According to the USGS, the estimated coordinates for this event were 14.956°N, 61.310°W with the event having an estimated depth of 150.6 km.

The closest CCRIF member country affected was Dominica, with estimations placing the earthquake epicentre approximately 38 km SSE of the capital Roseau (see Figure 5). The earthquake did not generate a government loss in the CCRIF model and therefore did not trigger any payment from CCRIF. This is consistent with no reported damage or loss in Dominica as a result of this event.

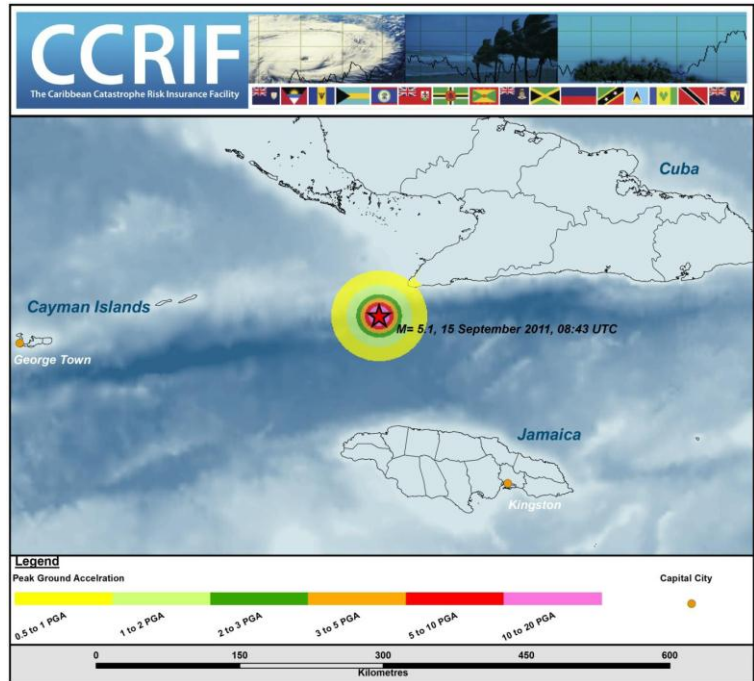


**Figure 5: Map showing the epicentre location for 9 September 2011 Windward Islands earthquake. Source: USGS**

**15 September 2011, Earthquake affecting Jamaica**

An earthquake of magnitude 5.1 struck of the south western coast of Cuba at 08:43:06 UTC on 15 September 2011. Located at 19.563°N, 78.008°W at a depth of 5 km according to the USGS estimate, the event occurred offshore to the northwest of Jamaica, the closest CCRIF member country. This made the event epicentre 122 km north of Montego Bay (see Figure 6).

There were no reports of damage or loss in Jamaica as a result of this event. The earthquake did not generate a government loss in the CCRIF model and therefore did not trigger any payment from CCRIF.



**Figure 6: Epicentre location and peak ground acceleration footprint for 15 September 2011 Cuba earthquake. Sources: USGS, CCRIF/KAC MPRES**



## CCRIF Product Developments

CCRIF's product developments are aligned to two of its strategic objectives:

- To provide products, services and tools responsive to the needs of the region
- To enhance capacity for disaster risk management and climate change adaptation

Whilst CCRIF will continue to offer Caribbean governments products, services and tools such as hurricane (wind and storm surge) and earthquake policies, there also is focus on developing other products where feasible. The Facility always strives to be innovative and to continuously develop other sustainable products, services and tools to meet the needs of Caribbean governments in an effort to enhance their disaster risk response and management capabilities. The development of many of these new products, services and tools are well underway and include the development of the new excess rainfall product, new

parametric products serving low-income, vulnerable persons as well as the expansion of the Facility's technical assistance programme.

CCRIF's product developments for the 2011/12 policy year centred around the following five areas:

1. Excess Rainfall Product
2. Real -Time Forecasting System (RTFS)
3. CIMH/CCRIF Haiti Reconstruction Effort
4. GeoNode Mapping Platform
5. Climate Risk Adaptation and Insurance in the Caribbean

The progress on 1 to 4 will be described below and # 5 will be described under the section on "Programmes, Projects and Partnerships".

### Excess Rainfall Product

Over the year, CCRIF worked with Swiss Re to develop an excess rainfall (XSR) product based on available NASA-processed satellite rainfall data to underpin a parametric policy. This product will be made available to countries in the region in the next policy year 2012/13. It will be a less sophisticated product than the original planned excess rainfall product and will be designed as a rainfall hedge rather than

replicating actual loss from the various hazards related to heavy rainfall.

This product was developed after CCRIF participating countries and stakeholders expressed a strong interest in having available coverage for excess rainfall, both within hurricanes and in non-hurricane systems.

The CCRIF/Swiss Re XSR model uses NASA/JAXA Tropical Rainfall Measurement Mission (TRMM) daily rain data to compile a 5-day running aggregate of rainfall measurements at all of the TRMM grid nodes across a given country. As used in other CCRIF products, the Multi-Peril Risk Estimation System (MPRES) exposure database is utilised to map exposures across a country at 30 arcseconds (~1km) resolution. Remote sensing data and economic and demographic statistics for 2010 are used to generate the exposure database. The database is designed to provide acceptable estimates for losses to physical assets from hydrometeorological and geophysical hazards. Since the TRMM nodes are at ~25 km resolution, the 1 km MPRES exposure data is mapped onto the TRMM grid. This provides a distribution of the total MPRES values between the rainfall measurement points covering each country. For scaling purposes, 1% of the total MPRES exposure value is used as the base XSR exposure.

The excess rainfall product is triggered independently of the current hurricane

product, and if both policies trigger then two payouts are due. The current hurricane policy is linked to wind and storm surge damage in a defined Tropical Cyclone. While the excess rainfall product can be triggered for a Tropical Cyclone, it can also be triggered in non-cyclonic systems if the rainfall trigger thresholds are met.

Rainfall risk profiles were prepared for a number of countries and provide the necessary information for CCRIF and Swiss Re to price coverage.

Coverage characteristics, within limits, are selected by each country separately (in the same way as existing CCRIF earthquake and tropical cyclone coverage selections are made). The premium cost is risk-based, and therefore depends on the rainfall risk profile of the country and the coverage characteristics selected.

CCRIF entered into discussions regarding excess rainfall coverage with Jamaica's Ministry of Finance and made preparations for similar discussions with the ministries of finance in Trinidad and Tobago and Haiti.

## Real-Time Forecasting System

CCRIF provided 179 users with access to its Real-Time Forecasting System (RTFS) during the 2011 Hurricane Season. This represented an 80% increase in users over the 2010 Hurricane Season. Registered users included personnel from disaster management departments and meteorological offices, ministries of planning, tourism, agriculture and finance as

well as a number of international development agencies working in countries across the region in disaster risk management.

The RTFS is a storm impact forecast tool which provides users with real-time hurricane hazard and impact information. The RTFS is made available at the

beginning of the Atlantic Hurricane Season each year which starts on 1 June or when a storm becomes active within the designated CCRIF monitoring region.

The RTFS provides information not available from other hurricane weather sources. While all hurricane weather sites tell the user where the storm is heading, and how strong it is likely to be, the CCRIF RTFS tells the user the impact the storm is likely to have when it gets there – in terms of: wind speed over land, storm surge and wave heights along the coast, total expected rainfall, number of people likely to be affected by wind speed category, expected general damage levels, and expected downtime for ports and airports.

In 2011, two new features were added to the RTFS. These were:

- Location-specific hazard values for Haiti: 6-hourly estimates for the wind speed and storm surge values (for offshore points) for 15 locations
- Past Storm Archives - which enable users to view storms from previous years: fourteen storms were archived in 2011 – Bret, Don, Emily, Gert, Harvey, Irene, Jose, Lee, Nate, Maria, Ophelia, Philippe, Rina, and Sean.

The RTFS webpage was accessed 571 times from 19 countries. This reflects a 72% increase in usage over the 2010 season.

CCRIF will continue to provide this tool during the 2012 Hurricane Season.

### Training in the Use of the RTFS

During July 2011, in collaboration with the Caribbean Institute for Meteorology and Hydrology (CIMH) and Kinetic Analysis Corporation (KAC), CCRIF provided two sets of training on the RTFS. Seventy-eight people from eighteen countries in the Caribbean region participated in a two-day online training course (delivered through the CCRIF online training site) entitled, “*Understanding the Real-Time Forecasting System – a Practical Course Designed to Strengthen Caribbean Governments’ Disaster Response and Mitigation Capacity*”.

The training focussed on improving participants’ understanding of hurricane risks, and provided them with general information on what forecasting is and what it involves, while introducing its limitations. Equal importance was placed on exposing participants to various topics including: the key features of the RTFS product; understanding the RTFS modelling platform; application of the RTFS; selecting locations to be included in the RTFS product; and an introduction to the use of Google Earth, the platform through which the RTFS product is delivered.

Participants felt that the training was a success and they all indicated that they would use the RTFS in 2012. In the course evaluation, 26% of the respondents rated the course as excellent and the remaining 76% rated it as very good.

## RTFS Expansion and Support

The RTFS was linked to a regional early warning system platform called the Caribbean Dewetra Platform for Natural Disaster Risk Assessment and Prediction, a system originally developed by Italy’s Civil Protection Department and the CIMA Research Foundation, formerly the International Centre for Environmental Monitoring.

Dewetra is a real-time data and information integration system for hydrometeorological risk forecasting, environmental monitoring and disaster risk mitigation. This system, tailored to Caribbean needs is part of the

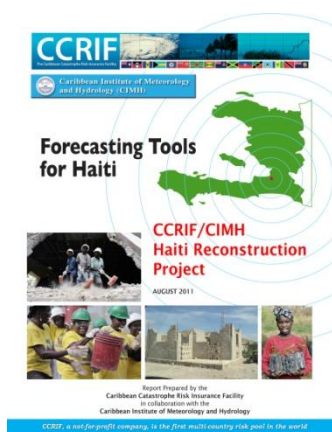
“Enhancing Resilience to Reduce Vulnerability in the Caribbean” project.

CCRIF created the capability to integrate RTFS outputs into the Caribbean Dewetra platform. Dewetra’s ability to integrate climate models and field observations in real time can provide strong support to meteorological analysis and forecasting in the region. CCRIF also provided assistance in drafting a Dewetra-Caribe Guide designed around the Hurricane Tomas case study and including CCRIF RTFS information.

## CIMH/CCRIF Haiti Reconstruction Effort

Since the January 2010 earthquake in Haiti, CCRIF and the Caribbean Institute for Meteorology and Hydrology (CIMH) have been developing publicly available, fully automated rainfall and flood prediction products and have been assisting the international and regional communities with the use of these products. The report “Forecasting Tools for Haiti” was produced. It provides technical details regarding the operational high resolution rainfall and flood prediction tools, two application examples,

the limitations of the products and the future work planned.



CIMH will continue to work in the new policy year to prepare a fully operational flood prediction product for each of three critical watersheds in Haiti that have been identified by CCRIF. The operational product will be hosted on the CIMH’s website where users will be able to access the 48-hour hydrological forecasts for the three watersheds. This tool will provide users with guidance as it relates to the possible inundation extents and flood risk.

## GeoNode Mapping Platform

In consultation and cooperation with the World Bank, CCRIF installed an interactive mapping platform that will be used as a

repository for all hazard and risk information the Facility produces as part of its operation in the Caribbean. This

platform, known as *GeoNode*, is an open source web platform that facilitates the creation, sharing, and collaborative use of geospatial data.

The World Bank is actively promoting the use of GeoNode in the Caribbean in support of disaster risk reduction, and has already installed the platform at the University of the West Indies, and in the ministries of planning in several Eastern Caribbean countries. CCRIF's GeoNode will form an excellent platform for the dissemination of CCRIF hazard maps and country risk profiles. This could prove to be a useful tool in enabling the country risk profiles to be made available to governments for their various GIS and other mapping applications.

Over the period, CCRIF's Facility Supervisor successfully developed a working GeoNode instance which was deployed and tested. Access to this working version was provided to members of the CCRIF Team to interact with the GeoNode product and to provide feedback on its functionality. This feedback will be used to guide relevant aspects of the GeoNode design and implementation which will be undertaken in the next policy year. Subsequently, CCRIF will release a "live" version and the implementation of a full-scale customised version of the product which encapsulates the 'look and feel' of a product that is harmonious with a CCRIF-oriented theme.





## Programmes, Projects and Partnerships

Under Strategic Objective #2: “To enhance capacity for disaster risk management and climate change adaptation”, CCRIF supports its members in the development and implementation of strategies for disaster risk management and adaptation to climate change. CCRIF also ensures that its support for disaster risk management in the region builds on existing mechanisms, institutions, tools and capacities. To enable the achievement of this strategic objective, CCRIF developed and began implementation in 2009 of a Technical Assistance Programme (the components of this Programme are presented in Figure 7 below) which enables the Facility to:

- Design and implement programmes in collaboration with other regional organisations to strengthen Caribbean governments’ disaster response and mitigation capacity
- Engage in programmes and actions that are designed to develop institutional enabling environments

and regional supporting mechanisms for knowledge sharing, scaling up good practices, capacity building and technology transfer

- Develop strategic alliances through MoUs and other mechanisms with regional institutions to reduce existing vulnerabilities in the small island and coastal states of the region
- Work with members and stakeholders in defining climate change adaptation strategies to support sustainable development of key economic and social sectors

In this section, information will be provided on all projects and programmes which the Facility is implementing such as the Climate Risk Adaptation and Insurance in the Caribbean Programme and the Extra-Regional Scholarship Programme. An update on the various memoranda of understanding signed by the Facility also will be provided.

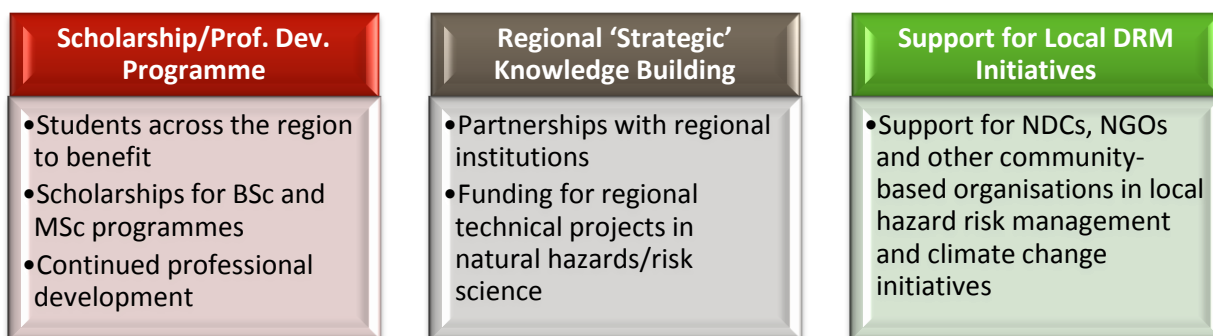


Figure 7: Components of the CCRIF Technical Assistance Programme

## Climate Risk Adaptation and Insurance in the Caribbean Programme



Munich RE



The countries of the Caribbean will soon benefit from the introduction of a programme that is intended to help vulnerable people adapt to extreme weather events. This programme intends to design and implement products that combine risk reduction and insurance for low income groups such as small scale farmers and day labourers (e.g. construction workers, tourism sector workers, household helpers). The products to be developed will target medium-level weather extremes (such as hurricanes and excess rain), which are likely to increase in frequency and intensity with climate change.

This programme, entitled “Climate Risk Adaptation and Insurance in the Caribbean,” will be implemented over a three-year period (2011-2014) and is being led by the Munich Climate Insurance Initiative (MCII), in partnership with CCRIF, MicroEnsure, the world’s premier microinsurance broker, and Munich Re, a leading global reinsurer. It is supported by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) as part of the International Climate Initiative (IKI). Five

countries (Jamaica, Saint Lucia, Grenada, Belize and Guyana) have agreed to participate in the project with three of these countries (Grenada, Jamaica, and Saint Lucia) being considered “fast track” countries.

During 2011, the project team undertook the business partner development phase of the project, hosting the project partners and making arrangements for meetings with



potential stakeholders in all three “fast track” countries. Development of product ideas in Belize and Guyana shifted into Phase 2 of the project in order to enable a more detailed look at their risks and needs. The team worked on finalising the pricing and partners for two products (Loan Portfolio

Cover and Livelihood Protection Policy).

The **Livelihood Protection Policy** is intended to provide low-income persons with an amount of money after an extreme weather event and within a short period of time to allow them to rebuild their farm/small enterprise and/or livelihood.

The **Loan Portfolio Cover** is intended to provide portfolio-level protection against default for lender institutions such as

development banks and credit unions which have significant portfolios of individual and small business loans exposed to weather risks – for example, a development bank or credit union with a significant agricultural lending portfolio.

Over the period, the project team also conducted over 20 meetings, workshops and community visits with stakeholders in these countries. These meetings included consulting with representatives of agricultural agencies and cooperatives; ministries of agriculture, tourism and finance and various financial institutions –

including credit unions, as well as farmers from the major crop industries (including cane, banana, coffee, cocoa, and coconut), and livestock and fisheries industries.

A country relationship manager was hired to carry out client education, especially for the potential policy holders, regulators and senior staff at the local distribution channels as well as to maintain relations with the local partners including insurance companies and distributors. Work also began on the development of a public relations strategy, which will complement the client education programme.

## Scholarship/Professional Development Programme

The CCRIF Scholarship and Professional Development Programme has been designed to provide scholarships to students attending the University of the West Indies (UWI) as well as institutions outside the Caribbean and to provide support for professionals to participate in conferences and other capacity development activities.

### CCRIF Extra-Regional Scholarship Programme

In 2011, CCRIF launched the extra-regional component of its scholarship programme. Through the extra-regional scholarship programme, CCRIF will provide up to three scholarships annually for CARICOM citizens wishing to obtain a Masters or MBA degree in areas related to catastrophe risk management at a university in the United Kingdom, United States or Canada. Eligible programmes include Masters-level courses in the following areas:

- Catastrophe Risk Management
- Property/Casualty Insurance
- Disaster Management
- Meteorology/Climate Change
- Engineering  
(Civil/Environmental/Building with disaster focus)

The application process was initiated in February 2012 and the successful applicants will be announced in June 2012.

### CCRIF/UWI Scholarship Programme

In 2011/12, CCRIF

- Continued to provide scholarship support for two final year undergraduate students who were recipients of CCRIF scholarships in their second year of study
- Provided undergraduate scholarships to two students in the Engineering Faculty (St Augustine campus), starting their second year of study

- Provided funding for a MPhil student undertaking research in disaster management

Between academic years 2010/11 and 2011/12 CCRIF provided 11

scholarships to students at the Mona (Jamaica) and St Augustine (Trinidad & Tobago). These are highlighted in Table 1 below. The total value of awards disbursed to date is US\$89,250.

**Table 1: CCRIF Scholarship Recipients at the University of the West Indies for Academic Years 2010/11 and 2011/12**

Year	Recipient	Faculty	Nationality of Recipient
2010/11	Rhon-Paul Soltau	BSc Civil and Environmental Engineering, St Augustine (2 <sup>nd</sup> Year)	Jamaican
	Wanda Monrose	BSc Civil and Environmental Engineering, St Augustine (2 <sup>nd</sup> Year)	Jamaican
	Odene Baker	BSc Department of Geography and Geology, Mona (3 <sup>rd</sup> year)	Jamaican
	Gerarda Ramcharansingh	MSc Disaster Management, Mona	Trinidadian
	Kevin Douglas	Msc Disaster Management, Mona	Jamaican
	Dorlan Burrell	Msc Disaster Management, Mona	Jamaican
2011/12	Rhon-Paul Soltau	BSc Civil and Environmental Engineering, St Augustine (3 <sup>rd</sup> Year) – continuation of scholarship	Jamaican
	Wanda Monrose	BSc Civil and Environmental Engineering, St Augustine (3 <sup>rd</sup> Year) – continuation of scholarship	Jamaican
	Thalia Balkaran	MPhil Disaster Management (Year 1 of 2 years)	Trinidadian
	Julian Wilson	BSc Civil Engineering (2 <sup>nd</sup> year)	Barbadian
	Kenton Gamble	BSc Civil Engineering (2 <sup>nd</sup> year)	Barbadian

### Scholarship Support to the Government of Belize

CCRIF also provided scholarships to two meteorologists employed to Belize’s National Meteorological Service, Michele Natalie Smith and Shanea Latoya Young. The scholarship recipients will study for a Bachelor of Science degree in Meteorology at the University of West Indies, Cave Hill Campus, Barbados.

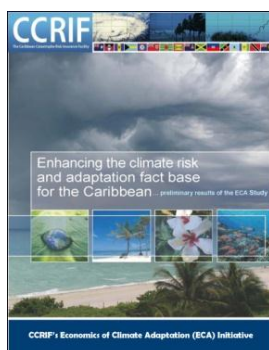
On completion of their studies, these two officers are expected to bring important expertise to the National Meteorological Service and thus are expected to build the capacity of the agency to deliver better service to the Belizean public.

These scholarships were provided to the Government after the passage of Tropical Cyclone Richard in 2010. They will enable the Meteorological Service to fill a capacity

gap, caused by recent retirement of experienced professionals at the agency.

## Economics of Climate Adaptation (ECA) Initiative

In 2010 CCRIF released the preliminary results of its study on the Economics of Climate Adaptation (ECA) in the Caribbean. During this policy year, CCRIF continued to examine funding options for Phases 2 and 3 of the ECA project.



results published in 2010 and integration of that feedback into a final ECA report for the eight countries covered (Anguilla, Antigua and Barbuda, Barbados, Bermuda, the Cayman Islands, Dominica, Jamaica, and Saint Lucia). Phase 3 involves the application of the methodology on

Phase 2 is expected to comprise workshops to elicit country feedback on the preliminary

an ongoing basis throughout the Caribbean.

## Key Regional Findings from the ECA Study

- Current climate risk in the Caribbean is already high, with expected losses of up to 6% of local GDP in some countries
- Climate change could result in a damage increase equaling an additional 1 – 3 percentage points of GDP in the worst case scenario
- Some countries could avoid up to 90% of the expected damage by implementing cost-effective adaptation measures

## Partnerships and Strategic Alliances

As part of its programme of activities, CCRIF continues to strengthen partnerships and to work with various entities in the region. Also, the Facility continues to develop and support strategic alliances through MoUs and other mechanisms with regional institutions to better manage risks, reduce existing vulnerabilities in the small island and coastal states of the Caribbean towards sustainable prosperity of the region.

The Facility also works with members and stakeholders in defining climate change adaptation strategies to support sustainable development of key economic and social sectors.

This year CCRIF prepared a Stakeholder Engagement Strategy that focused on increasing the Facility’s interaction with stakeholders in member countries. CCRIF

currently has networks of stakeholder relationships within all its member countries, with the international development partner community and with other key regional and global stakeholders and institutions that have an interest in, or are involved in disaster/insurance and related risk management activities. The Stakeholder Engagement Strategy provides the framework for a more systematic and strategic approach for managing and engaging these networks of stakeholder relationships.

As part of its mandate to work with regional organisations, CCRIF signed MoUs with three regional institutions over the policy year. These institutions are:

- Caribbean Community Climate Change Centre (CCCCC)
- Organisation of Eastern Caribbean States Secretariat (OECS)
- UWI-Seismic Research Centre (UWI-SRC)

Progress made with respect to our partnerships with key organisations in the region over the last year will be described below.

### Caribbean Community Climate Change Centre (CCCCC)



*British High Commissioner to Belize, Mr Patrick Ashworth (at left) observes as Dr Kenrick Leslie, CCCCC Director, and Mr Milo Pearson, CCRIF Executive Chairman, sign a Memorandum of Understanding between the Caribbean Community Climate Change Centre and the Caribbean Catastrophe Risk Insurance Facility*

CCRIF and the CCCCC signed a memorandum of understanding on 9 August 2011 in Belmopán, Belize in order to strengthen their partnership to be able to better assist Caribbean countries in developing climate change adaptation strategies. These two organisations currently play key roles in the collection and

provision of critical information and knowledge on the impacts of climate change and by extension natural disasters on Caribbean countries.

Specifically, the MoU will enable the countries of the region to:

- Benefit from capacity building through the elaboration and enhanced use of tools in the areas of

catastrophe risk modelling, parametric insurance and alternative risk transfer

- Participate in new programmes and initiatives to assist Caribbean governments in better understanding and financing catastrophe risk exposures
- Pursue the development of common strategies for enhancing and leveraging support for adaptation to climate change by sharing

knowledge and pooling resources and expertise

- Gain support for national policy frameworks aimed at enhancing adaptation
- Access international funding for climate adaptation through mechanisms such as the Adaptation Fund.

### Organisation of Eastern Caribbean States (OECS)

CCRIF and the Organisation of Eastern Caribbean States (OECS) signed a memorandum of understanding in March 2012 towards providing a framework within which collaborative activities are to be undertaken between the CCRIF and the OECS Secretariat.

The main objective of the MoU is to assist the governments of the Eastern Caribbean states to adopt policies on disaster risk reduction and mitigation that minimise the socio-economic, physical and environmental damage caused by natural disasters. The specific aims of the MoU are to:

- Support capacity building and country-level risk awareness in the national disaster offices and ministries of finance in the OECS member countries with a particular focus on holistic risk management and quantification of risk
- Facilitate cooperation between the ministries of finance and the national disaster offices in OECS member countries to build general catastrophe risk awareness

- Support community-level disaster risk reduction programmes through the CCRIF Technical Assistance Programme
- Share agendas of common interests in the areas of climate change and disaster assessment, prevention and mitigation, as these are part of the respective approved mandates and responsibilities of both institutions
- Share knowledge and support for policy formulation while promoting the integration of activities for disaster risk reduction and recovery within sustainable development
- Maximise impact obtained through working in partnership and pooling of resources and expertise where mutually appropriate
- Utilise the respective existing networks fully to mutual advantage and benefits
- Increase collaboration on other projects which might from time to time be mutually agreed by both parties



### **UWI Seismic Research Centre (UWI-SRC)**

CCRIF and the UWI Seismic Research Centre signed a memorandum of understanding towards establishing and maintaining a new accelerometric network in the Eastern Caribbean and Jamaica, which will assist in evaluating and mitigating seismic risk in the Caribbean. CCRIF's support for this initiative is approximately US\$120,000.

The overall objective of the MoU is to establish a core network of strong motion

instruments over a period of two years. During this period, equipment will be procured and tested, additional personnel selected, training conducted, compliance tests undertaken, instruments deployed and an ongoing programme of network maintenance, data processing and analysis implemented. Outputs are expected to be publicly available to member countries for research and other purposes.

### **Caribbean Electrical Utility Services Corporation (CARILEC)**

Over the year, CCRIF continued discussions with CARILEC with respect to the development and provision of a simple "cat-in-a-box" parametric insurance product for the region's electric utilities.

Some of these discussions focused on the development of a MoU. The MoU, to be

finalised in the upcoming policy year, will form part of the governance and operations structure for an electrical transmission and distribution system product being developed by CCRIF.

### **Collaboration with International Development Partners and Regional Finance Institutions**

CCRIF engaged in a range of discussions with development partners and institutions to access funding for the further development of CCRIF products as well as initiatives such as the Economics of Climate Adaptation Project.

Meetings were held with the World Bank, European Union, Caribbean Development Bank, Department for International Development, and the Inter-American Development Bank.

## Progress on MoUs with other Regional Organisations

Table 2 below provides a synopsis of the implementation of MoUs that CCRIF has with other regional organisations.

*Table 2: Progress of MoUs in the 2011/12 Policy Year*

Partner	Progress in 2011-12 Policy Year
<b>CARICOM</b> Caribbean Community	<ul style="list-style-type: none"> <li>In 2011, CCRIF continued discussions with CARICOM regarding the draft MoU between the two entities.</li> </ul>
<b>CDEMA</b> Caribbean Disaster Emergency Management Agency	<ul style="list-style-type: none"> <li>As part of CCRIF's commitment under its MOU with CDEMA, CCRIF provided sponsorship to the 6<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management. Co-hosted by CDEMA and Trinidad and Tobago's Office of Disaster Preparedness and Emergency Management, the conference was held in Port-of-Spain in December 2011.</li> </ul>
<b>CIMH</b> Caribbean Institute for Meteorology and Hydrology	<ul style="list-style-type: none"> <li>CCRIF and CIMH collaborated to provide assistance to Haiti in its long-term recovery and reconstruction efforts.</li> <li>CIMH continued to support CCRIF in providing real-time hurricane hazard forecasts through the RTFS for all member governments during the Atlantic Hurricane Season. CIMH worked alongside CCRIF and KAC to deliver two sets of online training on the RTFS to Caribbean nationals in the meteorological and disaster management sectors.</li> </ul>
<b>UN-ECLAC</b> UN Economic Commission for Latin America and the Caribbean	<ul style="list-style-type: none"> <li>Members of the CCRIF Board and Team met with officers of UN-ECLAC in May 2012 to discuss initiatives to be implemented within the MoU between the two organisations which was signed in February 2010. Discussions focussed on the development of an implementation plan to effectively operationalise the MoU</li> </ul>

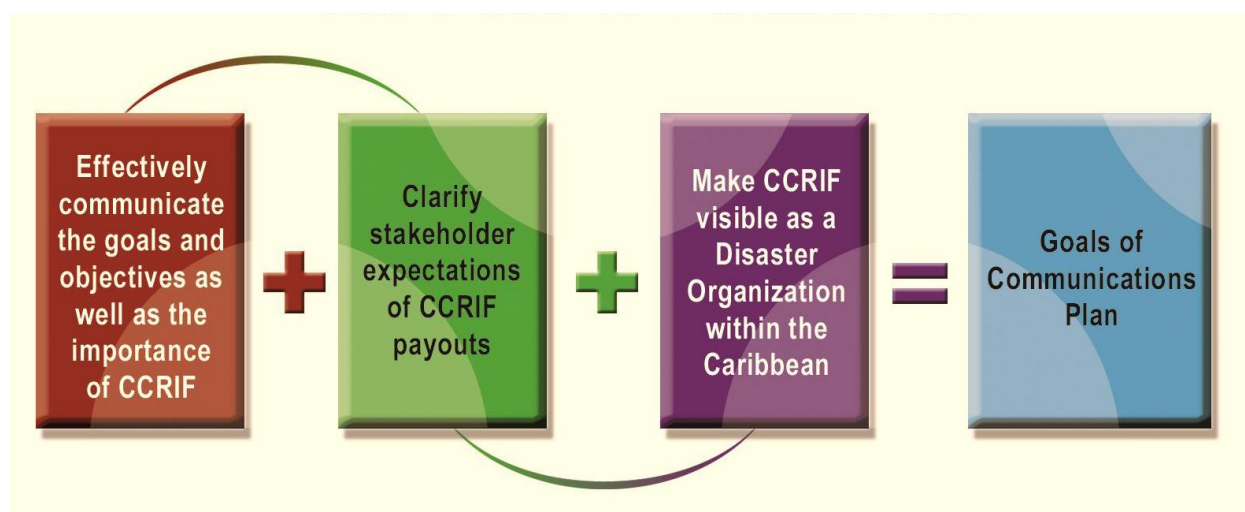


*At the Opening Ceremony of the 6<sup>th</sup> Meeting of the World Forum of Catastrophe Programmes (left to right) Dr Simon Young, CEO, Caribbean Risk Managers, Facility Supervisor, CCRIF; Mr Devon Rowe, Director General, Ministry of Finance, Jamaica; Mrs Desirée Cherebin, CCRIF Board Member; Dr Warren Smith, President, Caribbean Development Bank and former board member of CCRIF*

## Communications, Publications and Public Relations

CCRIF's communications and public relations strategy is contained in the CCRIF Communications Plan. This Plan has three

main goals which are presented in Figure 8 below.



*Figure 8: Goals of CCRIF Communications Plan*

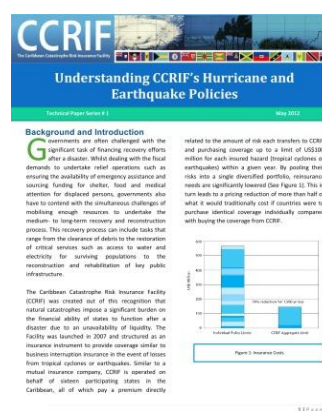
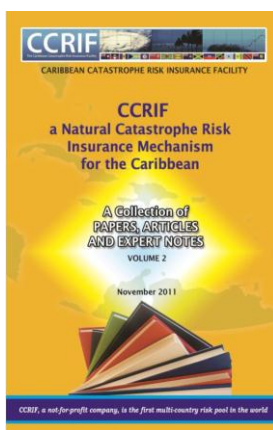
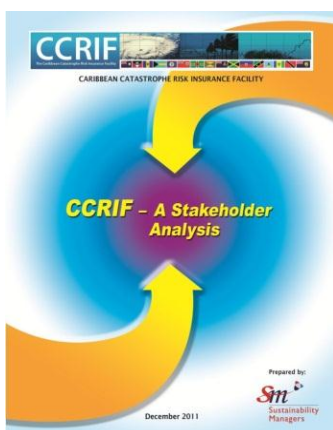
During the policy year, to support its communications objectives, CCRIF:

- Developed and delivered awareness raising and/or educational programmes for CCRIF contacts and other relevant policy makers in CCRIF member countries
- Developed and distributed 22 publications that included a mix of technical documents and booklets, brochures and quarterly and annual reports towards increasing the understanding of CCRIF among stakeholders as well as contributing to the dialogue in the region on disaster risk reduction and adaptation to climate change
- Distributed various press releases related to the work of the Facility
- Hosted the 6<sup>th</sup> World Forum of Catastrophe Programmes and provided sponsorship to other regional conferences
- Participated in various fora such as conferences and workshops
- Developed and designed its online training platform as part of an overall mechanism to deliver training programmes

In this section, information related to the following will be presented:

- CCRIF Publications and Features
- CCRIF Communications and PR
- CCRIF Website
- Seminars and Workshops Hosted by CCRIF
- Events Sponsored by CCRIF
- Seminars, Conferences and Workshops Attended by CCRIF’s Board and Team

## CCRIF Publications and Features



Over the policy year, CCRIF produced 22 publications. These included: 8 technical report or papers; 3 strategic documents including the CCRIF Annual Report; 4

newsletters; 4 quarterly reports; 2 flyers and 1 conference report.

Some of the technical reports included:

- Understanding How CCRIF Works and Insights into the Real-Time Forecasting System
- RTFS End of Season Report 2011
- CCRIF: A Natural Catastrophe Risk Insurance Mechanism for the Caribbean: A Collection of Papers, Articles and Expert Notes - Volume 2
- Booklet: A Snapshot of the Economics of Climate Adaptation in the Caribbean Study
- Technical Paper Series #1: Understanding CCRIF’s Hurricane and Earthquake Policies
- Forecasting Tools for Haiti - A Report on the CIMH/CCRIF Reconstruction Effort 2011

Over the policy year, CCRIF distributed over 2,000 copies of its publications through

email, delivery at meetings and workshops and direct mailings.

### External Publications and Reports

CCRIF also contributed to a range of publications produced by other entities and organisations – both printed and electronic. These publications address insurance, disaster management, climate change and environmental issues. Notable among these were:

Three articles published in the BVI Disaster Digest June 2011 (published October 2011), titled:

- *Understanding the CCRIF Mechanism and Policies*
- *A Tool for Climate Change Adaptation in the Caribbean*
- *Helping Caribbean Countries Understand Hurricane Risks and Enhancing their Preparedness during Hurricanes... CCRIF's Real-Time Forecasting System (RTFS)*



stakeholders. During the policy year, CCRIF was included in approximately 15 publications and reports by other organisations. Some of these publications and reports are:

- The Potential of Microinsurance – AM Best
  - Extreme Events and Insurance: 2011 Annus Horribili – The Geneva Association
    - Building Effective and Sustainable Risk Transfer Initiatives in Low- and Middle-Income Economies – Centre for Climate Change Economics and Policy
      - ClimateWise
- Compendium of Disaster Risk Transfer Initiatives in the Developing World
- Tackling Climate Risk: An Insurance Contribution to the COP Discussions - published by the Geneva Association

Also, CCRIF is regularly featured in various publications prepared by a range of

### CCRIF Communications and PR

During the period 1 June 2011 to 31 May 2012, 108 articles on CCRIF were published in printed and online newspapers and journals, online news portals, organisation websites and discussion blogs. Some of this coverage was as a result of press releases or advertisements disseminated by CCRIF; others resulted from requests by journalists for information and interviews. Other

articles appeared due to growing recognition among the insurance and Caribbean media of CCRIF's positive contribution to disaster risk management in the Caribbean and its role as an example which can be adapted to other parts of the world.

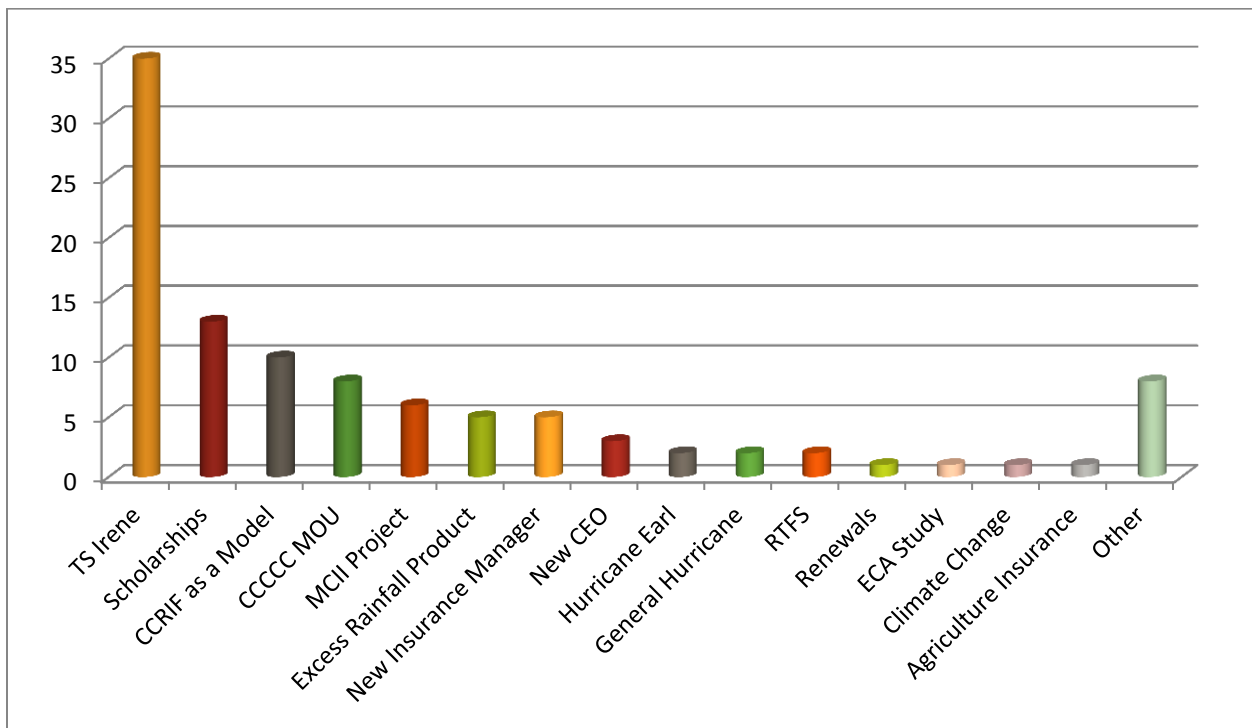
The number of articles (108) declined by two-thirds (67%) from the previous year

which saw 324 articles that referenced CCRIF being published. Usually, the occurrence of hurricanes and/or earthquakes generates the majority of the media coverage for CCRIF. The reduced press coverage in 2011-2012 reflects the relatively quiet year.

Thirty-two per cent of CCRIF’s press coverage – or 35 articles – were in regard to the passage of Tropical Storm/Cyclone Irene

in August 2011. Although the storm affected six CCRIF member countries (Anguilla, Antigua & Barbuda, the Bahamas, Haiti, St Kitts & Nevis and the Turks & Caicos Islands), no policy was triggered by this event.

Figure 9 shows the frequency of articles by topic area that appeared in the international and regional press.



**Figure 9: Press Coverage by Topic**

Figure 10 shows the distribution of coverage by month throughout the 12-month period, indicating the regional source of the publication. The figure shows the large increase in coverage in August 2011, after the passage of Tropical Cyclone Irene. Almost all countries within the Caribbean region carried stories about CCRIF,

including member states as well as non-members such as Suriname and Guyana. This region, along with the USA and UK provided the greatest coverage. There were 56 (52%), 17 (16%) and 16 (15%) articles from sources in the Caribbean, USA & Canada, and the UK, respectively (see Figure 11).

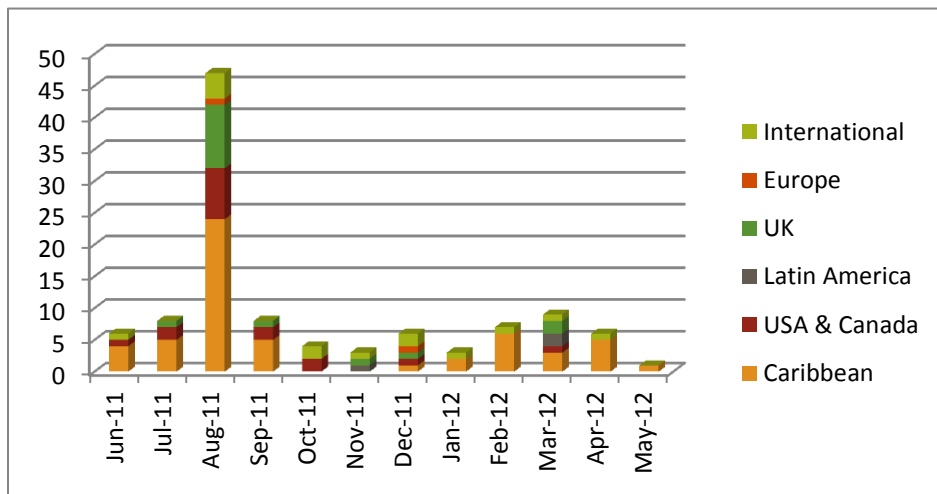


Figure 10: Press Coverage by Month and Geographic Region

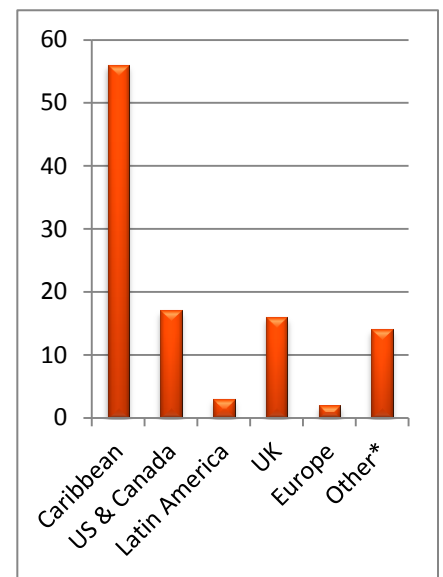


Figure 11: Press Coverage by Geographic Region

Figure 12 shows the coverage of CCRIF by media source: 48 articles appeared in Caribbean printed and online newspapers or news outlets and 13 in other newspapers or news portals; 21 articles in insurance and financial newspapers, journals and websites; 20 articles on websites of organisations such as the International Institute for Sustainable Development (IISD), MunichRe, the governments of Dominica and Saint Lucia, ReliefWeb and PreventionWeb.

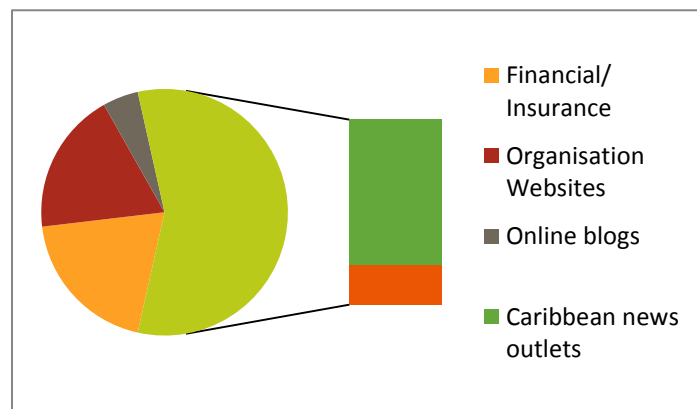


Figure 12: Press Coverage by Media Type



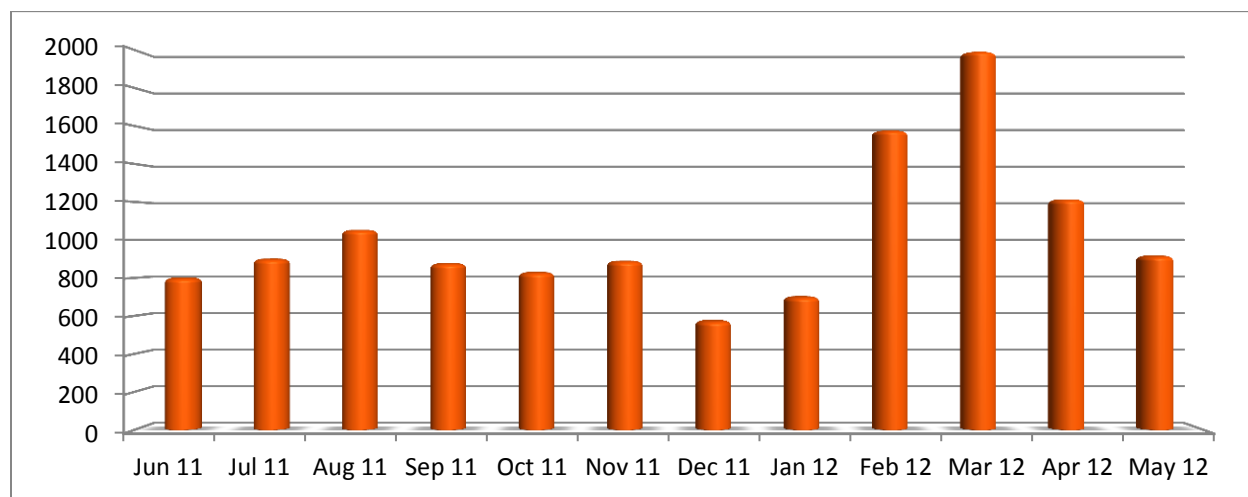


During the policy year, attempts were made to keep the website always current with new information updated regularly. Two significant updates were made to the CCRIF website over the policy year. These included the development of:

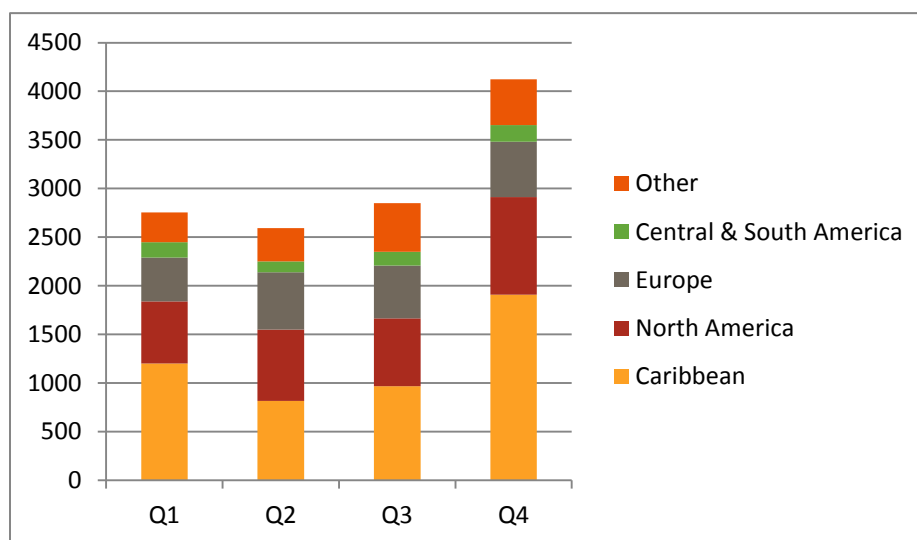
- An online training platform for the delivery of RTFS training
- A secure online document management system (DMS) for use by the CCRIF Board and Team and other key stakeholders. This DMS is expected to facilitate storing and sharing of the most current CCRIF documents.

Other website updates and improvements included creation of new webpages for the CCRIF Extra-Regional Scholarship Programme and the Climate Risk Adaptation and Insurance in the Caribbean Programme.

During this year, the CCRIF website was accessed 12,232 times; 4,895 (40%) of these visits were from the Caribbean. Figure 13 shows the access to the CCRIF website for the months June 2011 to May 2012 and Figure 14 shows the website access for each quarter in this year by country group.



*Figure 13: Visits to CCRIF Website by Month for FY 2011-2012*



*Figure 14: Visits to CCRIF Website by Country Group for FY 2011-2012*

## Conferences and Fora

CCRIF hosted the 6<sup>th</sup> meeting of the World Forum of Catastrophe Programmes. Additionally, the CCRIF Board and/or members of the team participated in 23 conferences and meetings over the year. At approximately 80 per cent of these conferences, presentations on CCRIF were made and materials and booklets on CCRIF

were distributed. CCRIF sponsored three conferences, including the Caribbean Conference on Comprehensive Disaster Management in which the Facility was a major sponsor. Conferences hosted, sponsored and attended will be presented in this section.

## 6<sup>th</sup> Meeting of the World Forum of Catastrophe Programmes



CCRIF hosted the 6<sup>th</sup> meeting of the World Forum of Catastrophe Programmes (WFCP) in Montego Bay, Jamaica between October 24<sup>th</sup> and 27<sup>th</sup>, 2011. This meeting was the Forum's annual gathering of representatives of catastrophe insurance programmes throughout the world and was used to share experiences and ideas. CCRIF is one of twelve WFCP members and is the only multiple-country programme and the only programme that focuses on developing countries. This was the first time the Forum had been hosted in the Caribbean. Thirty representatives from catastrophe and terrorism insurance programmes around the world, as well as leaders from Caribbean and Jamaican institutions, attended the meeting.

The objectives of the meeting were to:

- Share experiences, observations and lessons learned from major catastrophes in 2010/2011
- Learn from members about new developments in each of their respective organisations' financing methodology, coverage innovations and claim/benefit response
- Learn from members about new methods, projects and initiatives

whose implementation could be undertaken profitably by other WFCP member entities

- Share the hazard landscape of the Caribbean region and the initiatives being undertaken to reduce vulnerability of these small island and coastal states.

Day 2 of the meeting was themed "Natural Catastrophes, Comprehensive Disaster Management in the Caribbean and New Initiatives" and focussed on: recovery efforts and lessons learned from three major catastrophes in 2010 and 2011 – the earthquakes that occurred in Japan (March 2011 – and accompanying tsunami), New Zealand (February 2011) and Haiti (January 2010); sharing the Caribbean experiences in comprehensive disaster management (CDM) and learning about the Caribbean hazard risk landscape; and new initiatives in disaster risk management such as the new California Earthquake Authority cat bond and associated US federal legislation.

Presenters on day two were primarily from the Caribbean region and included: Mr Ronald Jackson, Director General, Office of Disaster Preparedness and Emergency

Management, Jamaica; Mr Jeremy Collymore, Executive Director, Caribbean Disaster Emergency Management Agency; Dr Myron Chin, GEM Operational Manager and Mr Lloyd Lynch, Research Fellow, UWI Seismic Research Centre; Ms Ekhosuehi Iyahan, Programme Manager,

Caribbean Risk Managers and Dr Simon Young, CEO, Caribbean Risk Managers. Over the two days, twenty presentations were made. This meeting of the WFCP was chaired by Mr Milo Pearson, Executive Chairman of CCRIF.

### **CCRIF's Sponsorship of Conferences and Events**

In addition to sponsoring and hosting the 6<sup>th</sup> Meeting of the World Forum of Catastrophe Programmes, CCRIF also sponsored two other conferences. These were:

#### **Conference of the Caribbean Division of the Institution of Structural Engineers**

CCRIF provided sponsorship worth US\$10,000 for the sixth conference of the Caribbean Division of the Institution of Structural Engineers (IStructE) held 15-16 September 2011 in Port-of-Spain, Trinidad & Tobago. The theme of the conference, hosted by IStructE in partnership with the Council of Caribbean Engineering Organisations, the Association of Professional Engineers of Trinidad and Tobago, and the Trinidad and Tobago

Institute of Architects, was "Environmentally Sustainable Construction – Mitigation and Adaptation to Climate Change." The conference was intended to raise awareness of the critical importance of improving the building process, to examine the effect of climate change on natural hazards and to encourage the construction industry to build in ways that would lead to an environmentally sustainable future.

#### **Sixth Caribbean Conference on Comprehensive Disaster Management**

CCRIF supported and participated in the 6<sup>th</sup> Caribbean Conference on Comprehensive Disaster Management held 5-9 December 2011 in Trinidad. This conference celebrated the twentieth anniversary of the Caribbean Disaster Emergency Management Agency (CDEMA) and CCRIF's support is part of the Facility's commitments under the Memorandum of Understanding with the Agency.

CCRIF's participation included:

- Providing sponsorship for and participating in a plenary session

entitled CDM Moving Forward: Seizing Opportunities and Repositioning. CCRIF provided sponsorship for the inaugural High-Level Session of the conference held as part of this plenary. This session, entitled Strategies for Effective Disaster Risk Management Policy and Programming in Small States, included a keynote address by Ms Margareta Wahlstrom, Special Representative of the United Nations Secretary General on Disaster Risk Reduction and a discussion led by a

- 
- panel consisting of ministers of government from small island states.
- Assisting with Professional Development Sessions on:
    - The Global Earthquake Model (GEM) conducted by UWI Seismic Research Centre
    - Flood Early Warning Systems conducted by the Japan International Cooperation Agency
  - Participating on the panel for the first Plenary Session entitled CDM Reflection: Retracing Steps, Celebrating Achievements, Distilling Gaps, with special guest speaker His Excellency Ambassador Sir Lloyd Erskine Sandiford, Ambassador of the Government of Barbados to the People's Republic of China
  - Participating in a Concurrent Session focussing on Climate Smarting National Disaster Risk Management Programmes
  - Hosting an informal CCRIF open-house
  - Establishing a booth for the conference exhibition

## CCRIF Participation at Conferences and Meetings



*Dr Simon Young participated in the International Workshop “Insurance for Climate Change Adaptation for Private, Productive and Financial Sectors” held 12-14 October 2011, in Lima, Peru. Dr Young’s presentation described CCRIF’s experience as an innovative risk-pooling mechanism for Caribbean governments.*

Members of the CCRIF Board and Team participated in over twenty-five conferences, meetings and workshops. Over the year there also was a focus on meeting with CCRIF member countries to discuss Hurricane and Earthquake policy renewals and the soon-to-be-offered Excess Rainfall policy. Some of these conferences and workshops attended included:

- International Forum on Caribbean Investment and Development

- Forum for Agricultural Risk Management in Development Annual Conference 2011
- UN Climate Change Conference in Bonn
- UN Climate Change Conference in Durban
- Natural Disasters in the Caribbean Workshop
- International Workshop “Insurance for Climate Change Adaptation for Private, Productive and Financial Sectors”

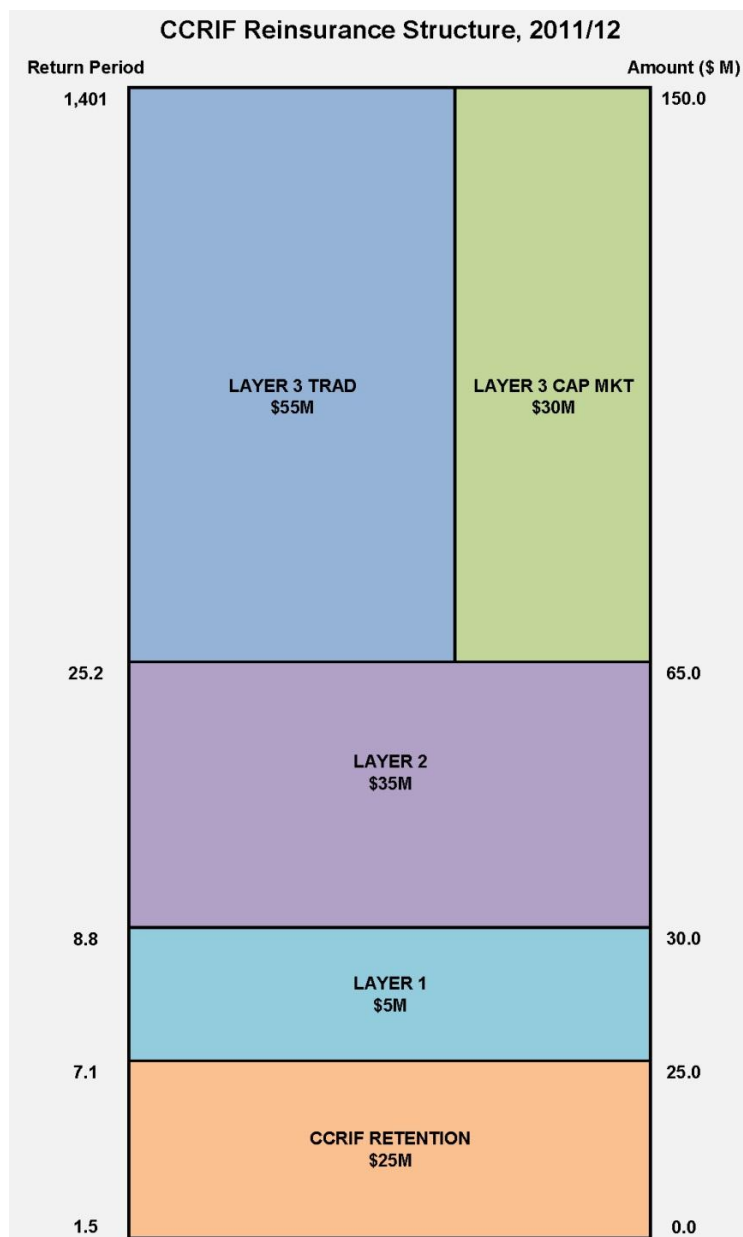


## CCRIF's Financial Stability

CCRIF issued 29 annual policies to 16 CARICOM countries for the 2011/12 policy/financial year. Annual premium income totalled just over US\$20 million, split approximately 60:40 between tropical cyclone and earthquake coverage. CCRIF's aggregate exposure for policies written was just under US\$625 million, with the tropical cyclone to earthquake aggregate split being about the same as the premium split. CCRIF maintained a premium to pure risk multiple of 1.75 for all coverage.

CCRIF purchased US\$125 million of reinsurance capacity above US\$25 million retention to support the claims paying capacity of the Facility (see figure at right). Reinsurance was purchased from the international reinsurance markets, including Swiss Re, Munich Re, Partner Re, Hanover Re and Lloyd's of London syndicates Hiscox and Catlin. US\$30 million of the top layer of risk was placed into the capital markets via a catastrophe swap between CCRIF and the World Bank Treasury. The top of the reinsurance structure, at US\$150 million, provided claims paying capacity for aggregate annual losses with an approximately 1 in 1,400 chance of occurring.

With CCRIF's own additional capital, the claims paying capacity of CCRIF for the 2011/2012 policy year was significantly greater than the modelled aggregate annual loss with a 1 in 1,000 chance of occurring, thus comfortably falling within CCRIF's guidelines for financial security and substantially better than any of its peers in either the public or private sector.







## **Audited Financial Statements 2011/12**

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2012 AND 2011**

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2012 AND 2011**

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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, changes in shareholder's equity and 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, 2012 and 2011, 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 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*

September 20, 2012

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**CONSOLIDATED BALANCE SHEETS**

*(expressed in U.S. dollars)*

	<u>2012</u>	<u>May 31,</u> <u>2011</u>
<b>ASSETS</b>		
Cash and cash equivalents (Note 4)	\$ 12,691,997	\$ 1,857,206
Investments, at fair value (Cost \$101,359,161 (2011: \$100,695,016)) (Note 5)	103,505,694	105,445,365
Unrealized gains on options (Note 10)	-	39,736
Unrealized gains on forward contracts (Note 10)	628,868	-
Unrealized gains on credit default swaps (Note 10)	-	304,087
Development costs (Note 17)	341,260	389,040
Accrued interest	1,167,330	1,353,331
Prepaid expenses	21,004	163,469
Amounts due from Donor Funds (Note 6)	<u>100,618</u>	<u>4,566,175</u>
Total assets	<u>\$118,456,771</u>	<u>\$114,118,409</u>
<b>LIABILITIES AND SHAREHOLDER'S EQUITY</b>		
<b>Liabilities</b>		
Accounts payable and accrued expenses (Note 7)	\$ 440,253	\$ 375,605
Due to broker	15,102	1,820,595
Income from parametric contracts received in advance (Note 8)	1,487,500	1,550,000
Participation fee deposits (Note 9)	15,858,512	19,323,512
Unrealized losses on forward and futures contracts (Note 10)	<u>-</u>	<u>407,630</u>
Total liabilities	<u>17,801,367</u>	<u>23,477,342</u>
<b>Shareholder's equity</b>		
Share capital (Note 11)	1,000	1,000
Share premium (Note 11)	119,000	119,000
Special reserve (Note 11)	5,010,878	-
Technical assistance reserve (Note 11)	846,617	709,803
Retained earnings	<u>94,677,909</u>	<u>89,811,264</u>
Total shareholder's equity	<u>100,655,404</u>	<u>90,641,067</u>
Total liabilities and shareholder's equity	<u>\$118,456,771</u>	<u>\$114,118,409</u>

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

Milo Pearson

September 20, 2012

\_\_\_\_\_  
Director

\_\_\_\_\_  
Date

Desirée Cherebin

September 20, 2012

\_\_\_\_\_  
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	
	<u>May 31,</u>	
	<u>2012</u>	<u>2011</u>
<b>Operating income</b>		
Income from parametric contracts (Note 2)	\$ 20,043,512	\$ 20,777,214
Expenses on parametric reinsurance contracts (Note 2)	( 10,049,295)	(10,188,150)
Net income on parametric contracts	9,994,217	10,589,064
Ceding commissions on parametric reinsurance contracts	<u>393,530</u>	<u>354,649</u>
Total operating income	<u>10,387,747</u>	<u>10,943,713</u>
<b>Operating expenses</b>		
Claims paid on parametric contracts (Note 12)	-	17,174,981
Brokerage and facility supervisor fees	<u>852,008</u>	<u>800,525</u>
Total operating expenses	<u>852,008</u>	<u>17,975,506</u>
Net operating income/(loss)	9,535,739	( 7,031,793)
<b>Other income and expenses</b>		
Investment income (Note 13)	1,356,559	3,939,156
Income from Donor Funds (Note 6)	756,594	27,196,019
Amortization of development costs (Note 17)	( 95,630)	( 18,000)
Technical assistance expenses (Note 3)	( 463,186)	( 470,772)
Administrative expenses (Notes 14 and 15)	<u>( 1,075,739)</u>	<u>( 515,375)</u>
Net income for the year	<u>\$ 10,014,337</u>	<u>\$ 23,099,235</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>Special reserve</u>	<u>Technical assistance reserve</u>	<u>Retained earnings</u>	<u>Total</u>
Balance at May 31, 2010	\$ 1,000	\$ 119,000	\$ -	\$ 480,575	\$ 66,941,257	\$ 67,541,832
Transfer to reserves	-	-	-	700,000	( 700,000)	-
Net income for the year	-	-	-	-	23,099,235	23,099,235
Utilization of reserves	<u>-</u>	<u>-</u>	<u>-</u>	<u>( 470,772)</u>	<u>470,772</u>	<u>-</u>
Balance at May 31, 2011	-	119,000	-	709,803	89,811,264	90,641,067
Transfer to reserves	-	-	5,010,878	600,000	( 5,610,878)	-
Net income for the year	-	-	-	-	10,014,337	10,014,337
Utilization of reserves	<u>-</u>	<u>-</u>	<u>-</u>	<u>( 463,186)</u>	<u>463,186</u>	<u>-</u>
Balance at May 31, 2012	<u>\$ 1,000</u>	<u>\$ 119,000</u>	<u>\$5,010,878</u>	<u>\$ 846,617</u>	<u>\$ 94,677,909</u>	<u>\$100,655,404</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	
	<u>May 31,</u>	
	<u>2012</u>	<u>2011</u>
<b>Operating activities</b>		
Net income for the year	\$ 10,014,337	\$ 23,099,235
Adjustments to reconcile net income to net cash from operating activities:		
Adjustment for items not affecting cash:		
Participation fee deposits used towards income from parametric contracts*	( 3,465,000)	( 2,440,000)
Change in fair value of investments	2,603,816	( 9,253,106)
Net realized loss on investments	1,590,430	158,462
Unrealized gains on derivative instruments	( 692,675)	( 233,503)
Amortization of development cost	95,630	18,000
Trading Securities:		
Purchase of securities	( 94,617,169)	(105,540,732)
Proceeds from sale of securities	90,404,925	91,870,203
Net movement in short term investments	1,957,669	2,211,006
Due to Broker	( 1,805,493)	1,820,595
Changes in assets and liabilities:		
Accrued interest	186,001	43,711
Amounts due from Donor Funds	4,465,557	( 4,111,827)
Accounts payable	64,648	( 148,986)
Income from parametric contracts received in advance	( 62,500)	( 2,924,780)
Prepaid expenses	<u>142,465</u>	<u>( 123,534)</u>
Net cash generated/(used) in operating activities	<u>10,882,641</u>	<u>( 5,555,256)</u>
<b>Investing activities</b>		
Development Cost	<u>( 47,850)</u>	<u>( 407,040)</u>
Net cash used in investing activities	<u>( 47,850)</u>	<u>( 407,040)</u>
<b>Financing activities</b>		
Participation fee deposits refunded	<u>-</u>	<u>( 225,000)</u>
Net cash used in by financing activities	<u>-</u>	<u>( 225,000)</u>
<b>Net change in cash and cash equivalents</b>	10,834,791	( 6,187,296)
<b>Cash and cash equivalents at the beginning of year</b>	<u>1,857,206</u>	<u>8,044,502</u>
<b>Cash and cash equivalents at the end of year</b>	<u>\$ 12,691,997</u>	<u>\$ 1,857,206</u>
Interest received	<u>\$ 3,541,197</u>	<u>\$ 4,357,322</u>
Dividends received	<u>\$ -</u>	<u>\$ 6,508</u>

\*Non-cash decrease in participation fee deposits offset against income recoverable from Parametric contracts (Note 9).

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, 2012 AND 2011**

*(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 part of 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 model-derived estimates of government losses generated using a pre-defined and escrowed catastrophe loss model and input data regarding the nature of each physical hazard event, as 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 2011/12 policy year (which terminated on May 31, 2012), the combined aggregate coverage limits for all Participating Countries were \$371 million (2011: \$386 million) for tropical cyclones events and \$253 million (2011: \$232.4 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, 2012 and 2011:

- The Group retains all losses up to \$ 25 million (2011: \$20 million) per annum.
- 100% (2011: 95.5%) of the next \$5 million (2011: \$15 million) of losses are reinsured with 6 (2011: 5) reinsurers with an A.M.Best rating of at least A for 5 of the reinsurers. One of the reinsurers is not rated. The Group retains Nil% (2010: 4.5%) of losses in this layer.
- 100% (2011: 95.5%) of the next \$35 million (2011: \$30 million) of losses are reinsured with 6 (2011: 5) reinsurers with an A.M.Best rating of at least A for 5 of the reinsurers. One of the reinsurers is not rated. The Group retains Nil% (2011: 4.5%) of losses in this layer.
- The next \$85 million (2011: \$66 million) of losses are ceded 64.71% to 6 (2011: 72.35% to 5) commercial reinsurers with an A.M.Best rating of at least A for 5 of the reinsurers, one of the reinsurers is not rated, and 35.29 % (2011: 27.65%) to the World Bank.
- The Group retains all subsequent losses above \$ 150 million (2011: \$131 million).

Notwithstanding the arrangements outlined above, all losses incurred in the Group’s retention limits were reimbursed to the Group by the Multi Donor Trust Fund up until exhaustion of the funds available which accrued during the year ended May 31, 2012 (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, 2012 and 2011, there were no unpaid losses.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2012 AND 2011**

*(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 custodians, and fixed deposits with original maturities of three months or less., recorded at amortised cost.

**Investments:** Investments consist of investments in exchange-traded funds, retail mutual funds, corporate debt securities, sovereign debt securities and short-term investments. The Company trades these investment securities with the objective of generating profits on short-term differences in market prices, accordingly, the Group classifies its investments as trading securities.

The fair value of exchange-traded funds is based on quoted market prices. 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 retail 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 one of its investment managers to invest, within prescribed limits, in financial exchange traded futures contracts 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 one of its investment managers 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 in the fair value measurements accounting policy on page 8), respectively.

**CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED MAY 31, 2012 AND 2011**

*(Expressed in United States dollars)*

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

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.

**Credit default swaps (“CDSs”) and over-the-counter (“OTC”) options:** The Group permits one of its investment managers 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. Movement in unrealized gains and losses on CDSs and OTC options are recorded as a component of investment income in the consolidated statements of income. Open CDSs and OTC options are valued using Level 2 inputs (as defined in the fair value measurements accounting policy below).

**Other Options and Warrants:** The Group permits one of its investment managers 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. Movement in unrealized gains and losses on other options and warrants are recorded as a component of investment income in the consolidated statements of income. Open options and warrants are valued using Level 2 inputs (as defined in the fair value measurements accounting policy below).

**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 managers and custodians. 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.

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

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 advisors' 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.

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.

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

**Income from Donor Funds:** In accordance with the agreements described in Note 6, the Group record income from Donor Funds on an accruals basis when costs reimbursable under the grant agreements were incurred and for which the Company was reimbursed.

**Income and expenses from parametric contracts:** Amounts payable/receivable for claims under the parametric policies written and ceded by the Group does 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 is initially recognized as a liability (reinsurance expense 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/reinsured events (based on historical trends and statistics) during the unexpired period of the contracts. At May 31, 2012 and 2011, 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.

**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.

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

**Uncertain income tax positions:** The authoritative US GAAP guidance on accounting for, and disclosure of, uncertainty in income tax positions 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, including resolution of any related appeals or litigation processes, based on the technical merits of the position. For income tax positions meeting the more likely than not threshold, the tax amount recognized in the financial statements, if any, is reduced by the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement with the relevant taxing authority. The application of this authoritative guidance has had no effect on the Group's financial statements.

**Technical assistance reserve:** Effective June 1, 2010, the Group commenced appropriating retained earnings to the technical assistance reserve. The amount to be credited to the reserve is established by the Company's Board of Directors based on a discretionary percentage applied to the prior year's 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. When expenses deemed to be "technical assistance" are incurred, a corresponding amount is transferred to retained earnings from the Technical Assistance reserve.

**Special reserve:** Special reserve represents an appropriation from retained earnings as determined by the Directors. This reserve will, at the sole discretion of the Directors, be released to retained earnings if and when premium discounts are granted to Participating Countries under the parametric contracts issued by the Company for the 2012/2013 underwriting year. When such discounts are applied against premiums written, a corresponding amount is transferred from special reserve to retained earnings. See also Note 11.

**Development cost:** Development costs are amounts capitalized with respect to the development of the second generation catastrophe loss model which became operational, effective June 1, 2010, upgrade to the second generation loss model which became operational subsequent to May 31, 2012 and the excess rainfall model which is expected to become operational in the near future. The Group amortizes the development cost on a straight line basis over 10 years for loss models (and 3 years for model upgrades), (being management's best estimate of the expected useful life) from the date the respective models become operational.

**Comparative amounts:** Certain comparative amounts have been reclassified to conform to the current year presentation.

**4. Cash and cash equivalents**

Cash and cash equivalents comprise:	<u>2012</u>	<u>2011</u>
Current and call accounts	\$ 3,685,990	\$1,857,206
Certificates of Fixed Deposit	<u>9,006,007</u>	<u>-</u>
	<u>\$12,691,997</u>	<u>\$1,857,206</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. All fixed deposits matured within 90 days at purchase.

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**5. Investments**

Most of the Group's 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 that are measured at fair value at May 31, 2012:

	<b>Fair Value Measurements Determined Using:</b>			
	<b>Level 1 inputs</b>	<b>Level 2 inputs</b>	<b>Level 3 inputs</b>	<b>Total</b>
Non-exchange traded mutual funds	\$ -	\$ 9,532,893	\$ -	\$ 9,532,893
Exchange-traded funds	766,006	-	-	766,006
Corporate debt securities	-	81,946,869	-	81,946,869
Sovereign debt securities	2,543,945	6,841,511	-	9,385,456
Short term investments	<u>1,874,470</u>	<u>-</u>	<u>-</u>	<u>1,874,470</u>
	<u>\$ 5,184,421</u>	<u>\$ 98,321,273</u>	<u>\$ -</u>	<u>\$103,505,694</u>

The following table summarizes the Group's investments that are measured at fair value at May 31, 2011:

	<b>Fair Value Measurements Determined Using:</b>			
	<b>Level 1 inputs</b>	<b>Level 2 inputs</b>	<b>Level 3 inputs</b>	<b>Total</b>
Non-exchange traded mutual funds	\$ -	\$ 10,430,396	\$ -	\$ 10,430,396
Exchange-traded funds	891,012	-	-	891,012
Corporate debt securities	-	83,060,100	-	83,060,100
Sovereign debt securities	-	7,231,718	-	7,231,718
Short term investments	<u>3,832,139</u>	<u>-</u>	<u>-</u>	<u>3,832,139</u>
	<u>\$ 4,723,151</u>	<u>\$ 100,722,214</u>	<u>\$ -</u>	<u>\$105,445,365</u>

At May 31, 2012, the Group holds positions in 5 (2011: 6) non-exchange traded open ended mutual funds, incorporated in Ireland and Luxembourg. The objectives of the funds are primarily to maximise total return and capital growth by investing in, among other securities, short to long term fixed and floating-rate investment grade and non-investment grade debt securities, and other debt securities issued by issuers located European companies and other wealthy nations. Management considers these funds to be relatively liquid as the funds process subscriptions and redemptions on a daily basis, subject to their respective terms and conditions. Under certain circumstances, the respective administrators of the mutual funds have the ability to suspend redemptions if it is considered to be in the best interests of the shareholder group (of the respective funds) as a whole.

At May 31, 2012, approximately 19% and 44% (2011: 17% and 58%) 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 47% (2011: 27%) of the debt securities had a credit rating of A- or higher, 25% (2011: 52%) were rated BBB or higher, 27% (2011: 12%) had a credit rating of lower than BBB and Nil% (2011: 9%) were not rated. The debt securities portfolio had an average maturity of approximately 5 years (2011: 6 years) from May 31, 2012. The company is exposed to foreign exchange risk on debt securities that corresponds to the jurisdiction of the issuing counterparties.

Included within investments are corporate debt securities with fair value of \$4,583,804 (2011: \$4,445,556) that have been pledged to cover margin requirements with respect to the forward contracts (see Note 3 and 10).

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**5. Investments (continued)**

Short term investments consist of cash held with the investment managers, term deposits and margin call accounts (see Note 10). Also included in short term investments, are amounts denominated in British Pound Sterling of \$219,726 (2011: \$171,152), Euros of \$408,189 (2011: \$1,550,845) and Australian dollars of \$6,113 (2011: \$387,630). The margin call accounts are restricted cash balances required to be posted with respect to the futures contracts (see Note 3 and 10).

**6. Donor Funds**

During the year ended May 31, 2012 the Company were involved in two donor trust funds, the CCRIF Trust Fund (the "Multi Donor Trust Fund") and Munich Climate Insurance Initiative ("MCII") (collectively referred to as the "Donor Funds").

The Multi Donor Trust Fund 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 included 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 2); and
- (d) such other operational expenses of the Company agreed with the World Bank.

The Multi Donor Trust Fund had an expected life of 5 years, starting in 2007. During the year ended May 31, 2012, the Multi Donor Trust Fund was closed having utilized all the remaining funds.

A new grant agreement was entered into with the MCII, which is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Under the agreement, the Company is eligible to receive funding up to €608,880 over the 3 year period to March 15, 2014 for reimbursable costs involving the time costs and travel expenses of the Facility Supervisor project team in partnership with MicroEnsure (an independent entity specialising in the development of micro-insurance programs) to perform market research and assess demand for new micro-insurance parametric products, specifically for community business groups and regional development banks.

During the year ended May 31, 2012 and 2011, the following costs were reimbursed and/or reimbursable by the Donor Funds:

	<u>2012</u>	<u>2011</u>
Expenses on parametric reinsurance contracts	\$ 573,452	\$ 9,833,501
Claims paid on parametric contracts	-	17,174,981
Directors' fees and expenses	-	49,257
Facility management fees and expenses	-	45,560
Other allowable recurring expenditure	<u>-</u>	<u>92,720</u>
Multi Donor Trust Fund	\$ 573,452	\$27,196,019
Munich Climate Initiative Project Costs	<u>183,142</u>	<u>-</u>
Income from Donor Funds	<u>\$ 756,594</u>	<u>\$ 27,196,019</u>



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**6. Donor Funds (continued)**

At May 31, 2012 and 2011, the following cost reimbursements were due from the Donor funds:

	<u>2012</u>	<u>2011</u>
Multi Donor Trust Fund	\$ -	\$ 4,566,175
Munich Climate Initiative Project Costs	<u>100,618</u>	<u>-</u>
Amounts due from Donor Funds	\$ <u>100,618</u>	\$ <u>4,566,175</u>

At May 31, 2012 the unutilized amount under the MCII grant was approximately €460,767 that was available for future eligible expenditure.

**7. Accounts payable and accrued expenses**

Accounts payable comprises accruals for expenses at year end. Included within accounts payable is an amount of \$108,291 (2011: \$40,000) 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 2012/13 policy during the year ended May 31, 2012.

**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 and reinsurers 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, however, for the period from inception to May 31, 2012, no deposits have been used to pay losses. 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. Further, participation fees deposits are partially refundable when a Participating Country's premium is reduced due to a reduction in coverage purchased, to the extent of the revised annual premiums.

During the year ended May 31, 2011, 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 2011/2012 premiums and during the year ended May 31, 2012, some Participating Countries elected to use a proportion of participation fee deposits to partially settle their 2011/2012 premiums (refer to consolidated statements of cash flow for amounts).

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**10. Derivative instruments**

The Group uses derivatives for hedging purposes and for efficient portfolio management. 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 are included as separate line items in the consolidated balance sheets with changes in fair value reflected as net change in unrealized gains/(losses) on derivatives as a component of the investment income line item in the consolidated statements of income (see Note 13).

The following tables indicate the realized and unrealized gains and losses on derivatives, by contract type, as included in investment income in the consolidated statements of income (see Note 13).

For the year ended May 31, 2012:

	<b>Gross realized gains</b>	<b>Gross realized loss</b>	<b>Total realized gains/(loss)</b>	<b>Change in unrealized gains/(loss)</b>
Commodity contracts	\$ 5,302,356	\$( 7,085,092)	\$(1,782,736)	\$ -
Equity contracts	673,635	( 1,045,158)	( 371,523)	( 39,736)
Credit contracts	26,917,920	(25,587,104)	1,330,816	( 304,087)
Foreign exchange contracts	-	-	-	1,036,498
Total	<u>\$32,893,911</u>	<u>\$(33,717,354)</u>	<u>\$( 823,443)</u>	<u>\$ 692,675</u>

For the year ended May 31, 2011:

	<b>Gross realized Gains</b>	<b>Gross realized loss</b>	<b>Total realized gains/(loss)</b>	<b>Change in unrealized gains/(loss)</b>
Commodity contracts	\$ 3,107,168	\$( 4,974,590)	\$(1,867,422)	-
Equity contracts	712,251	(1,833,709)	(1,121,458)	39,736
Credit contracts	4,535,932	(4,885,441)	( 349,509)	304,087
Foreign exchange contracts	<u>4,161,574</u>	<u>(7,744,030)</u>	<u>(3,582,456)</u>	<u>( 110,320)</u>
Total	<u>\$12,516,925</u>	<u>\$(19,437,770)</u>	<u>\$ 6,920,845</u>	<u>\$ 233,503</u>

**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.

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**10. Derivative instruments (continued)**

**Credit default swap transactions (continued)**

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.

During the year ended May 31, 2012, where the Group was buying protection and where the Group was the seller of protection, the Group's maximum notional exposure at any one point in time was approximately \$50m and \$5m respectively. 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, 2012, the Group realized gains of \$1,780,705 (2011: \$4,535,932) and incurred losses of \$ 1,182,101 (2011: \$4,885,441) in CDS transactions.

As of May 31, 2012, the Group is the buyer ("receiving protection") on a total notional amount of \$nil (2011: \$23 million) and is the seller ("providing protection") on a total notional amount of \$nil (2011: \$nil).

Credit default swaps are carried at their estimated fair value, as determined in good faith by management. In determining fair value, management considers the value provided by the counterparty as well as the use of third party vendors. In addition to credit quality, management monitors a variety of factors including cash flow assumptions, market activity, market sentiment and valuation as part of its ongoing process of assessing payment and performance risk. As payment and performance risk increases, unrealized appreciation is recognized for bought credit protection contracts and unrealized depreciation is recognized for sold credit protection contracts.

**Forwards, futures and options**

The exposures on derivative contracts are generally short-term as these contracts are settled or lapse within a short time frame. The positions held in foreign exchange contracts at May 31, 2012, are reflective of the average positions held in forward and futures contracts during the year. With respect to futures and option contracts, the maximum notional exposure at any one point in time during the year ended May 31, 2012 amounted to \$7m and \$50m respectively.

As at May 31, 2012, the Group had the following outstanding forward foreign currency contracts:

	<u>Expiry date</u>	<u>Notional value</u>	Fair Values at May 31, <u>2012</u>
United States Dollars forward (bought US\$ sold £)	June 22, 2012	\$ 16,921,782 (at forward rate of US\$1,538851: £1)	\$ 456,080
United States Dollars forward (bought US\$ sold €)	June 22, 2012	\$5,365,164 (at forward rate of US\$1,236280: €1)	<u>172,788</u>
			\$ <u>628,868</u>

At May 31, 2012, the Group held securities denominated in foreign currencies with a fair value of \$5,239,941 and \$16,225,740 relating to the Euros and British Pound Sterling 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.

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**10. Derivative instruments (continued)**

As at May 31, 2011, the Group had the following outstanding forward foreign currency contracts:

	<u>Expiry date</u>	<u>Notional value</u>	Fair Values at May 31, <u>2011</u>
United States Dollars forward (bought US\$ sold £)	June 24, 2011	\$15,556,157 (at forward rate of US\$1,645491: £1)	\$(240,559)
United States Dollars forward (bought US\$ sold €)	June 24, 2011	\$19,086,437 (at forward rate of US\$1,436829: €1)	(167,071)
			<u>\$(407,630)</u>

At May 31, 2011, the Group held securities denominated in foreign currencies with a fair value of \$19,086,437 and \$15,556,157 relating to the Euros and British Pound Sterling 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.

At May 31, 2011, unrealized gains on options consisted of options on euro Bund futures (2012: no open contracts). These options were exercised during June 2011 and/or lapsed subsequent to year end.

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

	<u>2012</u>	<u>2011</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 \$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.

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**11. Share capital, share premium, special reserve and technical assistance reserve (continued)**

The special reserve at May 31, 2012 of \$5,010,878 was created during the year ended May 31, 2012 and represents funding allocated by the directors to meet a 25% no claims discount proposed to be awarded to Participating Countries. The reserve will be released to retained earnings in the period which the discount is applied/awarded.

The discount was proposed at the directors' discretion due to there being no events triggering claim payments to Participating Countries during the year ended May 31, 2012.

The technical assistance reserve at May 31, 2012 of \$846,617 (2011: \$709,803) represents unused funding available to the Company only for approved "technical assistance" expenses (See Note 3).

**12. Claims paid**

There were no events in the year ended May 31, 2012 (2011: two hurricane events) which triggered claim payments to Participating Countries.

**13. Investment Income**

Investment income comprises:	<u>2012</u>	<u>2011</u>
Interest and dividend income	\$ 3,355,196	\$ 4,320,118
Change in fair value of investments	(2,603,816)	9,253,106
Net losses on sale of investments	(1,590,430)	( 158,462)
Investment management, custody and fund administration fees	( 942,807)	(1,058,098)
Foreign exchange gains/(losses)	3,269,184	(1,730,166)
Net realized (losses)/gains on derivative instruments (Note 10)	( 823,443)	(6,920,845)
Net unrealized gains/(losses) on derivative instruments (Note 10)	<u>692,675</u>	<u>233,503</u>
	<u>\$ 1,356,559</u>	<u>\$ 3,939,156</u>

**14. Administration expenses**

Administration expenses comprise:

	<u>2012</u>	<u>2011</u>
Audit and other professional fees	\$ 54,500	\$ 62,500
Captive management fees	120,000	115,000
Consultancy fees	36,852	(210,180)
Directors' fees	81,500	72,500
Executive Director's fees	148,182	174,679
Directors' and Officers' insurance	25,000	25,000
Legal fees	-	8,252
Government fees	11,647	11,646
Meeting expenses	85,346	67,745
Publicity	165,991	136,165
Trust expenses (Note 15)	30,000	38,250
Munich Climate Initiative Project (Note 6)*	307,596	-
Sundry expenses and bank charges	<u>9,125</u>	<u>13,818</u>
	<u>\$ 1,075,739</u>	<u>\$ 515,375</u>

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*(Expressed in United States dollars)*

**14. Administration expenses (continued)**

\*See Note 6 for discussion of the Munich Climate Initiative Project. Parts of these expenses were reimbursed under a grant (Note 6).

**15. Related party transactions**

During the year ended May 31, 2012 and 2011, the Group incurred the following expenses on behalf of the Trust:

	<u>2012</u>	<u>2011</u>
Trustee fees	\$ 20,000	\$ 28,250
Enforcer fees	<u>10,000</u>	<u>10,000</u>
	<u>\$ 30,000</u>	<u>\$ 38,250</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.

**17. Development cost**

	<u>Second generation Loss Model</u>	<u>Second generation Loss Model upgrade</u>	<u>Excess rainfall Loss model</u>	<u>Total</u>
<b>Cost</b>				
Balance brought forward at June 1, 2009	\$ -	\$ -	\$ -	\$ -
Additions during the year	180,000	167,040	60,000	407,040
Balance carried forward at May 31, 2011	<u>180,000</u>	<u>167,040</u>	<u>60,000</u>	<u>407,040</u>
Additions during the year	-	47,850	-	47,850
Disposals during the year				
Balance carried forward at May 31, 2012	<u>180,000</u>	<u>214,890</u>	<u>60,000</u>	<u>454,890</u>
<b>Accumulated amortisation</b>				
Balance brought forward at June 1, 2010	\$ -	\$ -	\$ -	\$ -
Amortisation charge for the year	18,000	-	-	18,000
Balance carried forward at May 31, 2011	<u>18,000</u>	<u>-</u>	<u>-</u>	<u>18,000</u>
Amortisation charge for the year	18,000	71,630	6,000	95,630
Balance carried forward at May 31, 2012	<u>36,000</u>	<u>71,630</u>	<u>6,000</u>	<u>113,630</u>
Net book value at May 31, 2012	<u>\$ 144,000</u>	<u>\$ 143,260</u>	<u>\$ 54,000</u>	<u>\$ 341,260</u>

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**17. Development cost (continued)**

Development cost above represents fees paid to third parties for development of computer loss modeling software for the Group which is necessary for the underwriting operations of the Group.

**18. Certain risks and financial instruments**

**(a) Geographical concentration of risk**

The Group's principal activity comprises parametric catastrophe risk coverage for Participating Countries in the Caribbean region.

**(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, derivatives and accrued interest receivable. The maximum amount of loss the Group at May 31, 2012 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 managers invest in securities with a high credit quality (see Note 5). Derivatives are subject to the credit risk of the respective counterparties.

The Group manages credit risk by transacting only with counterparties considered highly reputable and creditworthy and within established investment/derivative guidelines.

**(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, their respective issuers, securities/markets to which they are linked, 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 and its underlying mutual funds investments may not be able to access cash and/or redeem their investments on a timely basis to settle losses. The frequency of redemption of the Investment Fund is monthly and subject to appropriate notice period. The underlying mutual funds investments and the Investment Fund are 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.

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*(Expressed in United States dollars)*

**18. Certain risks and financial instruments (continued)**

**(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. The fair value of the forward foreign exchange contracts will fluctuate as a result of changes in the corresponding market rate of exchange. See Note 10 for details of forward foreign exchange contracts entered into by the Group during the period.

**(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 the credit default risks 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. Where the Group is buying protection, the Group will recover none of the payments made to purchase that protection should a credit event not occur. Where the Group is selling protection, should a credit event occur, the value of the reference obligation and the periodic payments received, may be less than the full notional value it pays to the buyer, resulting in a loss. The risks involved in selling protection are significantly greater than when buying protection.

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 contract amounts are presented in Note 10 to indicate the extent of the Group's exposure to such instruments. At May 31, 2012, the Group had no open swap contracts.

**(j) Options**

Transactions in options carry a high degree of risk. The following section describes the core types of option contracts and the corresponding risks:

Purchased call options represent right to purchase a stock at a set price (the "exercise price") on a future specified date (in return for a premium i.e. the price paid for the option) but create no obligation to buy the stock but rather the right to do so until the expiration date.



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**18. Certain risks and financial instruments (continued)**

**(j) Options (continued)**

If the stock price at expiration is above the exercise price by more than the premium paid, the transaction will result in a gain. If the stock price at expiration is lower than the exercise price, the call option will expire worthless and the loss recorded will be the amount of the premium paid (plus any transaction costs). Compared to owning the respective stock, purchased call options leverage upside gains when a stock price increases because for the same amount of money, the Company has exposure to a much larger number of the securities, however, unlike owning the stock (when the entire cost of the investment is at risk), the maximum loss that can be incurred with a purchased call option is the premium paid plus transaction costs.

Purchased put options represent the right to sell a stock at a fixed exercise price on a future specified date but creates no obligation to sell the stock but rather the right to do so until the expiration date. If the stock price at expiration is below the exercise price by more than the premium paid, the transaction will result in a gain. If the stock price at expiration is above the exercise price, the purchased put option will expire worthless and the loss recorded will be the amount of the premium paid (plus any transaction costs). Compared to selling short the respective stock, purchased put options leverage upside gains when a stock price decreases because for the same amount of capital invested and pledged as security, the Company has exposure to a much larger number of the securities, however, unlike selling a stock short (when there downside risk is unlimited for the duration the security is sold short), the maximum loss that can be incurred with a purchased put option is the premium paid plus transaction costs.

Written put options represent an obligation to buy the stock at a fixed exercise price at the buyer's option. Selling (writing) options represents a significantly higher degree of risk to the Company. If the stock price at expiration is above the exercise price, the Written put option will result in a gain equal to the amount of the premium received (less any transaction costs). If the stock price at expiration is below the exercise price by more than the amount of the premium, the written put options will result in a loss, with the potential loss being up to the full value of the exercise price of the stock for the entire contract quantity. Compared to owning the respective stock, written put options limit upside gains to the premium received less transaction costs but leverage downside losses gains when a stock price decreases because for the same amount of capital invested and pledged as security the Company has exposure to a much larger number of the securities (and therefore much larger losses).

Written call options represent the obligation to sell the stock at a fixed exercise price at the buyer's option and represent the highest possible degree of risk to the Company. If the stock price decreases, the written call options will result in a gain equal to the amount of the premium received (less any transaction costs). If the stock price increases over the exercise price, for the entire contract quantity, by more than the amount of the premium received, the written call options will result in a loss. Since a share price has no limits to how far it can rise, where a written call option is not covered (i.e. the Company does not own the corresponding quantity of the underlying security), the written call option is exposed to unlimited risk of loss. Compared to selling short the respective stock, written call options exposure the Company to leveraged downside losses when a stock price increases because for the same amount of capital invested and pledged as security, the Company has exposure to a much larger number of the securities (and therefore much larger losses).

At May 31, 2012, the Company had not open option contracts.

**(k) Custody risk**

There are risks involved in dealing with a custodian who settles trades. Under certain circumstances, the securities and other assets deposited with the custodian may be exposed to a credit risk with regard to such parties. In addition, there may be practical or time problems associated with enforcing the Company's rights to its assets in the case of an insolvency of any such party.

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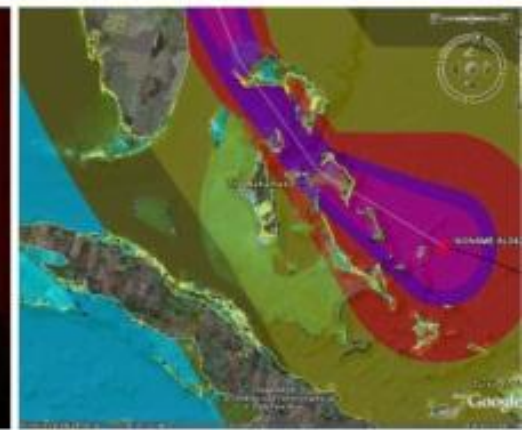
*(Expressed in United States dollars)*

**19. Subsequent events**

Management have performed a subsequent events review through September 20, 2011, being the date that the financial statements were available to be issued. Management concluded that there were no subsequent events which required additional disclosure in these financial statements, except as disclosed below.

Subsequent to year end, Hurricane Isaac affected three of the Participating Countries under the Company's parametric contracts. However, preliminary runs of the Company's loss model indicated that none of the affected Participating Countries had reached the attachment points that would trigger a claim and therefore no payout is due.

Published by  
**Caribbean Catastrophe Risk Insurance Facility**



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