

CCRIF CARIBBEAN CATASTROPHE

RISK INSURANCE FACILITY

QUARTERLY REPORT

1 SEPTEMBER 2009 – 30 NOVEMBER 2009



CCRIF Quarterly Report 1 September 2009 – 30 November 2009

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. Sixteen governments are currently members of the fund: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago and Turks & Caicos Islands.

CCRIF website: www.ccrif.org

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Acronyms

5Cs Caribbean Community Climate Change Centre

AOSIS Association of Small Island States

CaribRM Caribbean Risk Managers Ltd.

CARICOM Caribbean Community

CARILEC Caribbean Electrical Utility Services Corporation
CCRIF Caribbean Catastrophe Risk Insurance Facility

CDERA Caribbean Disaster and Emergency Response Agency
CDEMA Caribbean Disaster and Emergency Management Agency

CDM Comprehensive Disaster Management

CIDA Canadian International Development Agency
CIMH Caribbean Institute for Meteorology and Hydrology

CMEx Caribbean Media Exchange

COP₁₅ 15th Conference of Parties - Copenhagen United Nations Climate Change Conference

CZMU Coastal Zone Management Unit
DRM Disaster Risk Management
IMF International Monetary Fund
Kinanco Kinetic Analysis Corporation
MoU Memorandum of Understanding

NEPA National Environment and Planning Agency (Jamaica)

NGO Non-governmental Organisation

ODPEM Office of Disaster Preparedness and Emergency Management (Jamaica)

PDS Professional Development Session

UN-ECLAC United Nations Economic Commission for Latin America and the Caribbean

UN-FCCC United Nations Framework Convention on Climate Change

UWI University of the West Indies

UWI-DRRC University of the West Indies Disaster Risk Reduction Centre





Vision Statement

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

Mission Statement

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

CCRIF

CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY

The CCRIF is the first multi-country risk pool in the world, and is also the first insurance instrument to successfully develop a parametric policy 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 to Caribbean governments by quickly providing financial liquidity when a policy is triggered. During 2008/09 the CCRIF paid out approximately US\$6.3M to the Turks and Caicos Islands in the aftermath of Hurricane Ike.

Members

Sixteen governments are currently members of the fund: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago and the Turks & Caicos Islands.

Board of Directors

- Milo Pearson, Chairman
- Isaac Anthony, CARICOM appointed board member
- Dr. Warren Smith, Caribbean Development Bank appointed board member
- Gary Wilkins, Board Member
- · Ken Blakeley, Board Member

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INTRODUCTION

This report, for the period 1 September – 30 November, 2009, is the second quarterly report in the 2009/2010 fiscal year. It aims to keep stakeholders and the public fully up-to-date with CCRIF's activities on a more frequent basis than our Annual Report allows. The report is designed as an electronic document and we encourage you to utilise the hyperlinks to access background information on our website and those of our partners.¹

FACILITY OPERATIONS

- The Performance Measurement Framework data collection sheet for the Canadian International Development Agency (CIDA) was completed and submitted. The form is used to report results that are required for CIDA's annual corporate reporting exercise to the Canadian Parliament and relies on project-level indicators to measure programme performance.
- Detailed guideline documents outlining the core components of the CCRIF Technical Assistance Programme were prepared and are to be reviewed at the CCRIF Board meeting in December.
- Copies of the World Meteorological Organisation publication, *Climαte Sense*, were delivered and distributed to the Caribbean Institute for Meteorology and Hydrology (CIMH), the Barbados Coastal Zone Management Unit (CZMU) and other stakeholders.

CCRIF Quarterly Report 1 September 2009 – 30 November 2009

¹Hyperlinks are indicated by underlined text. Click on this text to access the referenced online document or website.

MANAGEMENT REVIEW

- A meeting of the CCRIF Board was held on 10 & 11 September, 2009 in Montego Bay, Jamaica. At this meeting, the following key decisions were taken:
 - CCRIF will establish a technical assistance programme containing three components as follows:

Scholarship/Prof. Dev. Programme

- Students across the region to benefit
- Scholarships for BSc and MSc programmes
- Continued professional development

Regional 'Strategic' Knowledge Building

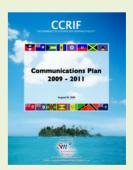
- Partnerships with regional institutions
- Funding for regional technical projects in natural hazards/risk science

Support for Local DRM Initiatives

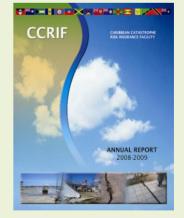
 Support for NDCs, NGOs and other community-based organisations in local hazard risk management and climate change initiatives

Further details of the technical assistance programme are provided later in this report.

- CCRIF will move forward and begin the final phase of development for the excess rainfall product. The rainfall model which underpins the product is expected to be operational at CIMH by the end of January 2010.
- CCRIF will continue with the development of a programme for CARILEC to cover electrical transmission and distribution systems with a parametric wind product.
- The CCRIF *Communications Plan 2009-2011* was approved.



- CCRIF will provide sponsorship for the 18th Caribbean Media Exchange (CMEx) on Sustainable Tourism and Climate Change, to be held 3-7 December, 2009 in St. Lucia. The selected "gold" sponsorship package will enable CCRIF to deliver a presentation/paper on the Facility at the conference, place a full page ad in the CMEx programme journal, and be identified as a main sponsor in all press releases and news releases related to the conference. The forum is expected to bring together reporters, editors, young people, development specialists, and representatives of the hospitality sector, civil society and Government to discuss resilience to the double threats of global recession and climate change as well as how tourism can improve the health, wealth, environment and culture of destinations in a "climate-friendly fashion."
- As highlighted in the MoU between CCRIF and CDEMA, CCRIF has continued to support the annual Caribbean Conference on Comprehensive Disaster Management. CCRIF is a co-sponsor of the fourth annual conference to be held in Montego Bay, Jamaica on 7 – 11 December, 2009 and is hosting a professional development session (PDS), Hazard Risk Reduction Initiatives in the Context of a Changing Climate: Prospects for Promoting Sustainable Prosperity in the Caribbean, for representatives of ministries of Finance, national disaster coordinators and other stakeholders from throughout the region. CCRIF's sponsorship of this conference includes: hosting of the professional development session; sponsorship for up to 30 participants to attend the full conference and for national disaster coordinators and other stakeholders to attend the CCRIF PDS; sponsorship of the opening ceremony and cocktails; and CCRIF participation in the conference exhibition. During the guarter, CCRIF focussed on organising the professional development session and worked closely with CDEMA to distribute sponsored invitations to, and facilitate the participation of, 30 stakeholders from ministries of Finance in the region as well as key organisations such as CARICOM and 5Cs. An additional 50 persons were sent invitations to participate in the CCRIF professional development session. CCRIF prepared a flyer highlighting the objectives of the PDS as well as the trainers and the target audience. Page 4 presents the flyer highlighting the CCRIF Professional Development Session which was distributed along with letters of invitation
- CCRIF distributed 350 annual reports, 400 copies of the first issue of CCRIF News, the Facility's newsletter, and 200 quarterly reports to key stakeholders, national disaster coordinators and to participants of various workshops and other events attended by the CCRIF Board and team.



Front cover of CCRIF Annual Report 2008 - 2009 - over 350 of these reports were distributed





th Caribbean Conference on Comprehensive Disaster Management

Rose Hall Resort and Spa, Montego Bay, Jamaica, December 7 - 11, 2009

"Strengthening CDM through Youth & Community Empowerment"

Professional Development Session

Hazard Risk
Reduction Initiatives
in the Context of a
Changing Climate:

Prospects for
Promoting Sustainable
Prosperity in the
Caribbean

Monday 7th December 2009, 8:30am to 12 noon

Target Audience:

This session targets
senior officials in
ministries/agencies/
departments covering
Finance, Planning,
Economic
Development,
Meteorology and
Disaster Management

Leaders: Dr Simon Young

CEO Caribbean Risk Managers, Facility Supervisors

Dr Jan Vermeiren

CEO Kinetic Analysis Corporation

Ms Ekhosuehi Iyahen

Caribbean Risk Managers

Mr Reto Schnarwiler

Head, Public Sector Business Development, Swiss Re

Introduction: The development of the Caribbean Catastrophe Risk Insurance Facility (CCRIF) following the physical and socio-economic destruction caused by Hurricane Ivan in 2004 has highlighted the role that active financial risk management can play in mitigating the brake on development which major natural catastrophes bring to small low- to middle-income island states. CCRIF is nearing completion of a major R&D project which has established a second-generation natural hazards modelling framework within which existing policies can be replicated and new products developed. In particular, coverage for extreme rainfall and for electrical utility transmission and distribution systems is in the final stage of development.

CCRIF has also participated in discussion and negotiation sessions in advance of the Copenhagen meeting to adopt a new climate change treaty. The Facility's innovative governance and financing models, policy types and operational framework have been recognised as providing a possible template for replication around the world, as risk management tools such as parametric insurance are being increasingly recognised as critical aspects of successful climate change adaptation strategies.

Within this context, CCRIF has also been exploring the possibility of assisting its member countries with the introduction of Country Risk Officers (CROs) to oversee all aspects of sovereign risk identification and management. The Organisation of Economic Cooperation and Development (OECD), along with various private-sector partners including Swiss Re, has developed a best-practice guide to implementing the role of CROs, which will have increasing importance in the context of globalisation and climate change.

Presenters: The session will be led by Dr Simon Young, CEO of Caribbean Risk Managers, a specialist risk management consultancy which is Facility Supervisor of CCRIF. Dr Young will be supported by Dr Jan Vermeiren, CEO of Kinetic Analysis Corporation, who will speak about new product development, Ms Ekhosuehi Iyahen of CaribRM who will focus on risk management and insurance in climate change adaptation, and Mr Reto Schnarwiler of Swiss Re who will discuss the role of Country Risk Officers.

CCRIF POLICY DEVELOPMENTS

Excess Rainfall Product

Development of the excess rainfall product continued, with the final model configuration being tested. Thereafter, the full 60-year rainfall climatology will be completed and the full modelling configuration will be installed at CIMH. The CCRIF sovereign parametric product for excess rainfall will be available for the 2010/2011 policy year.

The rainfall model which will underpin these policies will be run independently by CIMH and is on track to be fully operational by the end of January 2010. It will be a public good and will provide a 6-hourly rainfall accumulation map at high resolution for the entire Caribbean Basin based on Global Forecast System initialisation data and run with topographic enhancements. The model focusses primarily on quantifying rainfall at high resolution for extreme events.

The development of the CCRIF Second Generation Hazard Loss Estimation Model coupled with the development of the excess rainfall model will facilitate the development of specialist products for risk management and mitigation in both the public and private sectors.

A workshop will be held in the last week of January 2010 to introduce the rainfall product and the underlying rainfall model.

CARILEC Product

Development of the overhead electrical transmission and distribution system product in conjunction with CARILEC continued. The overall governance and operational concept was presented to the CARILEC Board on 30 November. The development of the final model is under way, as CCRIF awaits final data sets from some utilities.

CaribRM represented CCRIF at a CARILEC Board meeting this quarter. Once the CARILEC and CCRIF boards agree on the governance and operational framework of the proposed new entity, implementation will proceed. Donor funding will be sought to assist in capitalisation of the new facility.

Technical Assistance Programme

The CCRIF Board approved the development of a technical assistance programme for the region. The overall aim of the programme is to help Caribbean countries deepen their understanding of natural hazards and catastrophe risk, and the potential impacts of climate change on the region. This in turn will build capacity and knowledge bases for the development of adaptation strategies and building of regional climate change resilience through improved risk management.

The technical assistance programme will consist of three main components:

- Scholarship/Professional Development Programme
- Regional 'Strategic' Knowledge Building
- Support for Local Disaster Risk Management (DRM) Initiatives

The scholarship programme will support studies at the University of the West Indies (UWI) as well as elsewhere, and will focus on enhancing regional capacity by funding a number of students in selected bachelors and masters programmes. This programme is likely to include the following elements:

- Scholarships for disaster management master's programme at UWI-DRRC
- One or more other undergraduate scholarships for other UWI courses
- Several scholarships for bachelor's and master's courses overseas
- Support for professional development training courses at CIMH
- Support for CDEMA's new Regional Civil Defence Training Programme

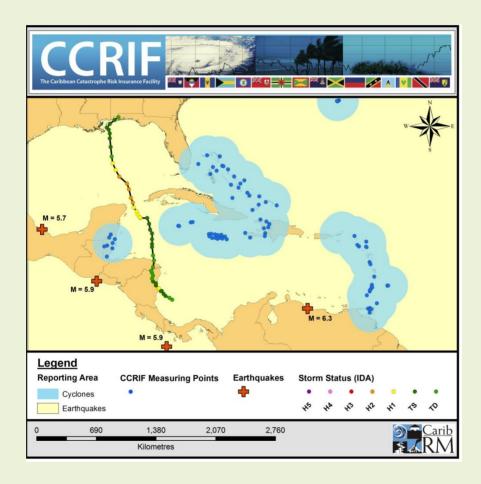
The regional 'strategic' knowledge-building component will likely include projects within the following tracks:

- Support for development of training and implementation materials for Country Risk Officers in CARICOM member states
- Support for quantitative work on the economics of climate adaptation in the Caribbean in partnership with regional institutions (UN-ECLAC and 5Cs) and international experts to build a strong knowledge base for climate change adaptation and risk management decisionmaking
- Development and implementation of an extreme weather data collection network across the region
- Support for UN-ECLAC in updating their post-disaster loss assessment methodology and exploring synergies with economic loss modelling within the CCRIF second generation loss modelling framework
- Support for academic research projects by Caribbean and international institutions focussing on issues of regional interest in disaster risk management

The local initiatives component aims to support small disaster risk management projects and programmes being implemented at the community level and which contribute to the fulfilment of the CCRIF mandate and the wider comprehensive disaster risk management agenda. This programme will finance small projects being run by NGOs and charity organisations and/or mandated by national disaster coordinators in local communities across CCRIF member countries. All projects must be of relevance to CCRIF and its regional mandate and agenda and can therefore be inclusive of but not limited to projects related to the following broad areas: disaster risk management; engineering; climate change adaptation; and training and other capacity building.

TROPICAL CYCLONE AND EARTHQUAKE REVIEW

There were four reportable earthquake events during this quarter (see figure below). Hurricane Ida also traversed the region but did not enter the reportable area for hurricanes (see figure below). None of these events had any impact on any CCRIF member state. The four reportable earthquakes were located in Central or South America. No individual reports were released on any of these events.



Reporting areas for earthquake and tropical cyclone events, reported events for the reporting period, and CCRIF measuring points

STRATEGIC ALLIANCES

Discussions continued with the <u>University of the West Indies Disaster Risk Reduction Centre</u>
(UWI-DRRC) to finalise an MoU between CCRIF and UWI-DRRC. This MoU will highlight
opportunities for working together and will enable UWI-DRRC to utilise CCRIF's second
generation risk modelling platform. The draft MoU document is currently being reviewed by UWI.

In support of this initiative, CCRIF attended the launch of the UWI Risk Atlas Project in Jamaica on 14 October 2009. The speech delivered



highlighted the input which CCRIF will be making to the initiative. CCRIF's catastrophe modelling platform and the data it generates will be made available to assist with the execution of the Risk Atlas project.

- Discussions regarding MoUs continue with the Caribbean sub-regional office of <u>UN-ECLAC</u>, <u>CARICOM</u>, and <u>CARILEC</u>. These MoUs are aimed at facilitating greater transfer of information, efficiency and coordination between these institutions and CCRIF with respect to areas where there is an overlap of interests. A review of the draft UN-ECLAC MoU was completed by the ECLAC Headquarters Office. The CCRIF Board will review the MoU before final approval is given to guide the signing of the document which should be in early 2010. The CARILEC MoU will form part of the finalisation of the governance and operations structure for the electrical transmission and distribution system product being developed by CCRIF. Other details of the MoU are currently being discussed by CARICOM. CCRIF will start on negotiations for an MoU with the <u>Caribbean Community Climate Change Centre</u> (5Cs) early in 2010.
- Given the growing relationship between CCRIF and the <u>Caribbean Institute for Meteorology and Hydrology</u> (CIMH), CCRIF was invited to participate in the annual CIMH Board of Governors meeting in Tortola, BVI held 5 & 6 November 2009. Jan Vermeiren delivered a presentation on behalf of CCRIF, and highlighted the fact that the Facility's collaboration and relationship with CIMH is guided by a memorandum of understanding signed in October 2008. The MoU focusses on supporting institutional strengthening, developing an excess rainfall insurance product and enabling real-time storm impact forecasting. CCRIF's



participation in the meeting resulted in the CIMH Board having a clearer understanding of the purpose and workings of the Facility.

CONFERENCES AND FORA

CCRIF undertook several initiatives aimed at supporting wider disaster risk mitigation activities and climate change adaptation strategies during the quarter. These are summarised below.

- CaribRM represented CCRIF at the Regional Ministerial-level Meeting on Climate Change and Development in St. Lucia on 14 & 15 September, 2009. This event formed part of the Caribbean region's preparation for the <u>United Nations Climate Change Conference in Copenhagen</u> on 7-18 December, 2009. The meeting was hosted by the Caribbean Community (CARICOM) Secretariat, the Caribbean Community Climate Change Centre (5Cs) and the Government of St. Lucia.
- Chairman Milo Pearson represented CCRIF at the <u>World Forum of Catastrophe Programs</u> in Taipei, Taiwan on 28-30 September, 2009. Hosted by the Taiwan Residential Earthquake Insurance Fund, this was the fourth annual meeting of the Forum which brings together executives from national and international disaster insurance schemes to share their knowledge and experience and to make this available to new and emerging schemes and their sponsors. Mr. Pearson described CCRIF's activities for the past year, highlighting the focus on the second generation modelling framework; the new products for excess rainfall and for electric utilities; the real-time modelling and risk impact service; and the contributions by CCRIF and its team to international discussions on climate change leading up to the Copenhagen conference in December. CCRIF also presented Briefing Notes to the group on capital market options for risk transfer, prepared by CaribRM in conjunction with the World Bank Treasury.



CCRIF Chairman, Milo Pearson

- CaribRM, on behalf of CCRIF, participated in the Seminar on Response Mechanisms to Natural Disasters: Experiences in Mexico, Central America and the Caribbean, held 15 & 16 October, 2009 in Panama City, Panama. The seminar was attended by national authorities in charge of civil defence and protection in Ibero-America and the Caribbean, regional, subregional and Ibero-American agencies for disaster management and emergency relief, regional and international organisations, and specialists of the Ibero-American Network of Climate Change Offices. CDEMA made a presentation, How to Simplify and Improve Mitigation Actions in Ibero-America Lessons Identified in the Caribbean, which identified CCRIF as an important partner in achieving CDEMA's goal of enhancing regional sustainable development through comprehensive disaster management.
- CCRIF, represented by Sustainability Managers, participated in the first sectoral workshop on Climate Change and the Insurance Industry hosted by <u>Panos Caribbean</u> and the <u>National Environmental Education Committee</u> on 17 November, 2009 in Kingston, Jamaica. The aim of the workshop was to assess and raise the levels of awareness and planning of the insurance sector



for adaptation to climate change. Approximately 25 persons participated, including representatives from the insurance sector, UWI, ministries and agencies of the Government of Jamaica (e.g. Agriculture, Tourism, ODPEM, NEPA, and Jamaica's focal point



for climate change - the Meteorological Office). CCRIF-related discussion focussed on triggering an event, country risk officers, the relationship between CCRIF and the strategies articulated in the national development plan, *Vision 2030 Jamaica* on hazard risk reduction, as well as the rainfall product and CCRIF's new technical assistance programme.

- CCRIF was represented by CaribRM at a <u>UN-ECLAC</u> meeting on 'Macroeconometric Modelling in the Caribbean' held at the UN-ECLAC sub-regional headquarters in Trinidad on 20 November 2009. The objectives of this expert group meeting were to bring together leading macroeconometric and environmental modelling strategists from various institutions in the region to explore avenues for greater collaboration; to critically examine the premises and objectives of traditional modelling strategies in the Caribbean; to begin to develop relationships with individuals and institutions so the Caribbean has a program of model building and forecasting; and to reflect on how to overcome new and old challenges to model building in the Caribbean. Since a major objective of policy-making in the Caribbean is to create the conditions for growth with equity while reducing vulnerability to economic and environmental shocks, model builders must develop strategies to properly address these questions in a unified way. Presentations on critical issues in macroeconometric modelling and economic modelling to determine the aspects of climate change in the Caribbean were showcased during this event.
- Presentations including the CCRIF as an institutional model were also made in the following fora:
 - An expert workshop exploring synergies of insurance to guide adaptation action to the most vulnerable people and countries (Bonn, Germany, 17 September, 2009)

- A United Nations University panel discussion, 'How risk reduction and insurance strengthen the adaptation package in a Copenhagen Agreement' (New York, 24 September).
- CaribRM, working in conjunction with the <u>Caribbean Community Climate Change Centre</u> (5Cs) and in support of Caribbean and other <u>Association of Small Island States</u> (AOSIS) parties, was present at the final <u>UN-FCCC negotiation session</u> prior to COP15, held in Barcelona, Spain on 2-6 November, 2009. CCRIF continues to be cited as a model for the use of regional risk pooling institutions and parametric risk transfer products as part of the climate change adaptation toolkit, and CaribRM provided much background information on CCRIF's history, governance and operations to interested parties through presentations and bilateral meetings.



what future will we leave?



COMMUNICATION AND PUBLICATIONS

- The following press releases were issued and disseminated during the guarter:
 - The CCRIF Model A Unique Climate Change Adaptation Strategy (14 September 2009)
 - <u>Caribbean Nations to Benefit from New Technical</u>
 <u>Assistance Programme in Natural Hazards Risk</u>
 <u>Management</u> (23 September 2009)
 - o New Publication CCRIF News (30 October 2009)
- The following CCRIF publications were produced this quarter²:
 - o Annual Report 2008-2009
 - o CCRIF News Vol. 1 No. 1 September 2009
 - o CCRIF News Vol. 1 No. 2 December 2009
 - Booklet, Caribbean Catastrophe Risk Insurance Facility

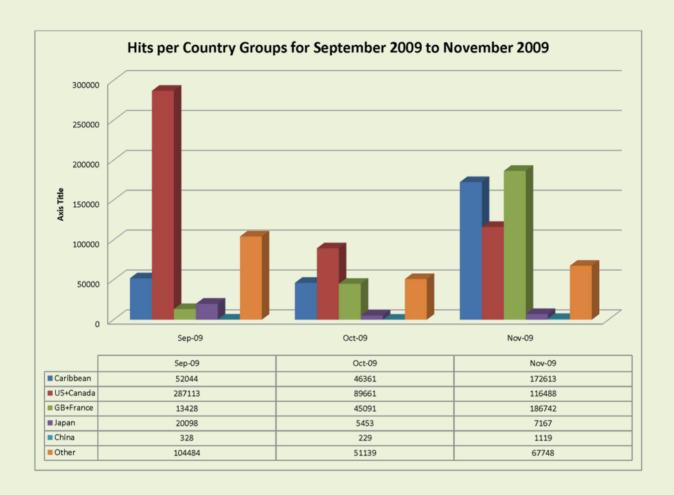
 A Collection of Papers and Articles this booklet includes four papers and provide an analysis of CCRIF to date and its benefits. The papers presented will enable the reader to better understand catastrophe risk transfer facilities and their contribution as a key disaster management tool
 - Flyer, The CCRIF Model An Essential Component of a Climate Change Adaptation Strategy
 - o Posters:
 - About CCRIF
 - Understanding Parametric Insurance
 - The CCRIF Model An Essential Component of A Climate Change Adaptation Strategy
 - CCRIF and Comprehensive Disaster Management



- Work continued on the redesign of the CCRIF website in order to improve CCRIF programme delivery and service via the website, while increasing awareness of the Facility's mission and role. The proposed architecture for the new website has been securely posted for review and comment by the CCRIF Board and team.
- Approximately 1,800 persons from the Caribbean, USA, Canada, the UK, Europe, Japan, China and other countries accessed the CCRIF website about 1.2 million times during this quarter (see

² CCRIF publications can be found on the CCRIF website: www.ccrif.org

figure below). The access by persons in the Caribbean increased from under 50,000 to approximately 170,000 "hits" within the guarter.



CCRIF Website Hits per Country Group: September – November 2009

NOTABLE MENTIONS

CCRIF continues to be recognised in the government, insurance and disaster management sectors globally as an important mechanism to reduce financial risks due to natural hazards and as a key component of comprehensive disaster management in the Caribbean which can be used as a model for other regions in the world. Also, the CCRIF model is increasingly being incorporated into academic studies by graduate students and professors at institutions in many different countries. Some of the instances in which CCRIF was mentioned during this quarter are presented below.



News Reports and Articles

- Articles in Insurance Day newspaper:
 - o Road to Copenhagen (15 September)
 - o CCRIF introduces scholarships to aid climate change impacts (24 September)
 - MultiCat is latest in a number of developing world risk-transfer measures (20 October)
 - Fonden securitizes again (23 October)
- Cat Bond Market Weathers the Financial Storm Article in Intelligent Insurer September 2009
- <u>CDERA and CCRIF work together to build regional resilience</u> Article on Caribbean Daily News online news site (4 September)
- Artemis blog:
 - o Caribbean Catastrophe Risk Insurance Facility working on excess rainfall product (27 October)
 - o MultiCat Program to offer developing countries a risk transfer alternative (2 November)
 - o GIC establishing catastrophe pool for Africa and Asia (12 November)
- <u>Catastrophe pools open window of opportunity</u> Article on Lloyd's Exchange website (22 October)

- <u>Caribbean Catastrophe Risk Insurance Facility develops weather derivative for excess rainfall</u> Article on Caribbean Net News website (29 October)
- *University of CCRIF* Blog entry by Trevor Maynard on Lloyds.com
- New Scholarships For Caribbean Risk Management Studies Article on BahamasB2B.com
- News in Brief: CCRIF is to offer scholarships... Article on i-law.com
- <u>Scholarships from Caribbean Catastrophe Risk Insurance Facility</u> Article on Caribbean Press Releases website
- Building Codes Must be Enforced Article in Barbados Advocate newspaper (4 September)
- <u>Caribbean develops weather derivative for excess rainfall</u> Article in Thomson Reuters Communities Issue 46: November 2, 2009
- Articles in the Jamaica Observer newspaper:
 - o <u>Developing Countries Use Insurance As Buffer Against Climate Change</u> (4 October)
 - o Jamaica turns again to the IMF-A (16 October)
 - o CCRIF to offer scholarships (1 November)
- <u>Capital markets gear up for climate change</u> Article on Thomson Reuters Insurance Linked Securities Community (27 November)

Also on several websites including:

- o Climate Ark Climate Change and Global Warming Portal
- o Peak Oil News & Message Boards
- o Planet Ark website
- NewsTrust website
- o **Business Insider** website
- o Asia News Network website
- o Pelangi Indonesia News website
- o BdNews24 (Bangladesh's only online newspaper) website

Journals, Publications and Reports

- <u>Caribbean Agencies Create Partnership for Natural Disaster Management</u> Sustainable Caribbean online journal (3 September)
- <u>Lloyd's Notes Success of Regional Catastrophe Pools, CCRIF</u> (26 October) Article in *Insurance Journal*

• Small Beginnings Article in <u>Global Reinsurance</u> magazine November 2009 issue

Websites

- CCRIF's sponsorship of the <u>Fourth Caribbean Conference on Comprehensive Disaster</u>
 <u>Management</u> is reflected on the conference website.
- CCRIF's sponsorship of the 18th Caribbean Media Exchange on Sustainable Tourism is reflected on the <u>CMEx</u> website.

Academic Studies

Doctoral student, Department of Geography, Ohio State University: dissertation on catastrophe insurance, disaster management, and adaptation to climate change

