



## CCRIF Launches Electric Utilities Product... Expanding Coverage to the Private Sector



**Earthquake Policies**



**Tropical Cyclone Policies**



**Excess Rainfall Policies**



**Fisheries Policy - COAST**



**Electric Utilities Policy**

CCRIF SPC recently launched its newest parametric insurance product, which has been developed for the electric utility sector in the Caribbean. By launching this product, CCRIF has expanded coverage to non-sovereigns and to the private sector, as it takes another bold step to grow and diversify its portfolio and membership. CCRIF also provides parametric insurance coverage for tropical cyclones, earthquakes, excess rainfall, and the fisheries sector to 19 governments in the Caribbean and 3 in Central America.

The parametric insurance product for electric utilities has been first purchased by the Anguilla Electricity Company Limited (ANGLEC) – with the Facility working with other electric utilities in the Caribbean who are expected to join. CCRIF’s ability to develop and offer products to non-sovereigns is based on the fact that, as a segregated portfolio company (SPC), the



Facility is able to establish segregated portfolios (SPs) or cells that allow for total segregation of risk and risk management operations (pricing, policy formats etc.) among cells. Under this structure of SPs, CCRIF also is able to provide benefits such as the sharing of operational functions and costs, thereby being able to offer products that cost much less than if each member were to approach the reinsurance market individually. The

SP established for public utilities is called the Caribbean Public Utilities SP (“CPU SP”) and joins four other SPs in the CCRIF structure.

The electric utilities product aims to limit the financial impact of devastating tropical cyclones by quickly providing financial liquidity to electric utility companies when a policy is triggered. The product will be limited to covering direct damage to the transmission and distribution (T&D) components of the electric power system due to impacts of wind. One of the issues faced by most electric utilities in the Caribbean is the inability to purchase traditional indemnity insurance for overhead T&D systems because of the very limited availability and uneconomical pricing.

For the full article please visit our website at: <https://www.ccrif.org/news/ccrif-expands-coverage-private-sector-launches-insurance-product-electric-utilities-caribbean>

### Quotes on the new Electric Utilities Parametric Insurance Product...

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*The development of this product is part of the scaling-up plans of CCRIF, which has as one area of focus the expansion of the Facility’s product offerings, an example of which is to address the needs of the electric utility sector in the Caribbean.* **Isaac Anthony, CEO, CCRIF SPC**



*“The role of electricity in the economic and social life of the region is pivotal. This product is not just for the electric utilities sector. It is for the development of the region in terms of the economic and social life of the people, who are dependent on tourism as well as agri-business, light manufacturing, etc., which are all reliant on the steady supply of electricity. The product speaks to a broader agenda: our ability to bounce back quickly after a disaster and generate economic activity through the provision of electricity to the industrial and commercial sector”.*

**Dr. Cletus Bertin, Executive Director of the Caribbean Electric Utility Services Corporation (CARILEC)**

*“ANGLEC was severely impacted by Hurricane Irma in 2017 and almost all of its transmission and distribution network was destroyed costing the company in excess of XCD40 million to restore. At the time the company had XCD16 million in its reserves (a self-insurance fund) and needless to say, all the reserves were used up. There was an urgent need to find an alternative mechanism because of the active hurricane seasons that we are experiencing”.* **Mr. Peter Lamontagne, CEO (Acting), Anguilla Electricity Company Limited (ANGLEC)**



*“CARILEC...intends to promote the product as a proof of concept so that other utilities can assess the mechanism. The CARILEC Secretariat will continue to work with CCRIF as it continues to reach out to other utilities of CARILEC – both government-owned and investor-owned – to encourage them to sign on to this very useful insurance package”.* **Dr. Cletus Bertin**

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On August 4, the Atlantic Council's Adrienne Arsht-Rockefeller Foundation Resilience Center, along with 30 global partners, announced the formation of the Extreme Heat Resilience Alliance (EHRA). The EHRA brings together global cities' leaders, experts in public health, finance, humanitarian assistance, disaster management, climate science and risk, insurance, and public infrastructure, to address the growing threat of extreme urban heat on vulnerable persons worldwide. Some organizations and cities that are members of the Alliance include among others: CCRIF SPC; Red Cross Global Disaster Preparedness Center; National Center for Atmospheric Research; Global Resilient Cities Network; IFRC, Americas Zone; Insurance Development Forum; The Rockefeller Foundation; City of Athens, Greece; City of Chennai, India; City of Melbourne, Australia; City of Mexico City, Mexico; City of Miami, Florida; and City of Tel Aviv, Israel.

The EHRA is supported by a US\$30 million grant from the Rockefeller Foundation, one of the largest climate donors in the United States, as well as the Atlantic Council, a Washington D.C.-based think tank, which hosts the center.

Today heat waves are considered a silent killer but unlike hydro-meteorological hazards, heat waves do not leave behind devastation to infrastructure and ecosystems – and they do cause death. Like hydro-meteorological hazards, heat waves are becoming more frequent due to the changing climate.

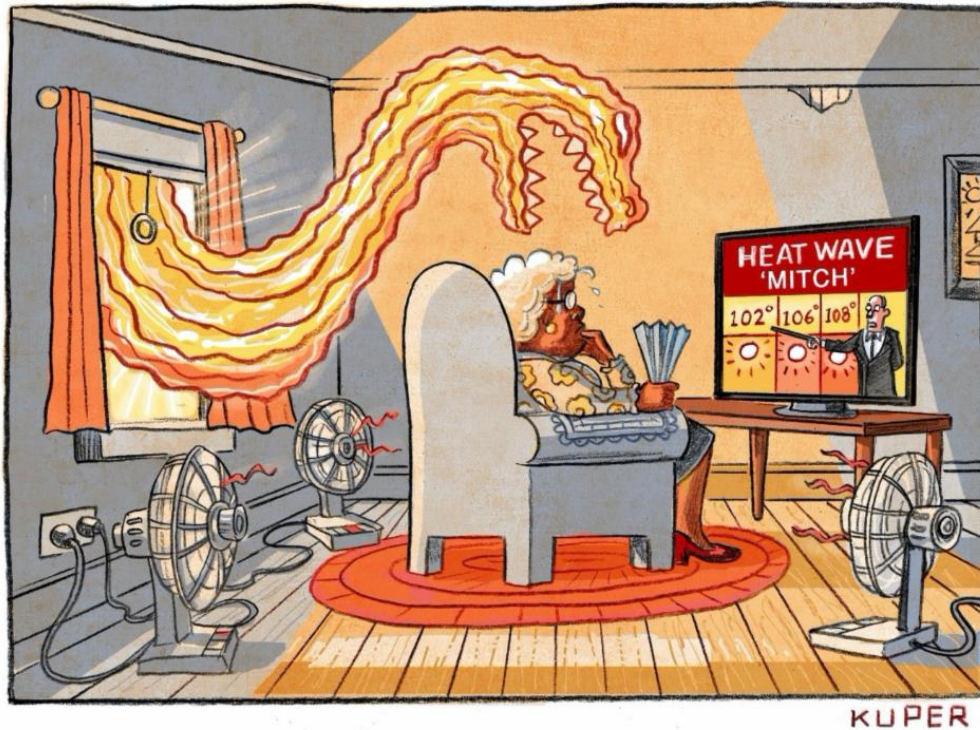
### Some heat waves and their impacts.....

**The 1995 Chicago heat wave killed more than 700 people. The 2003 European heat wave was blamed for as many as 70,000 deaths. More than 50,000 people died in a heat wave in 2010 in Russia.**

The Alliance is committed to not only raising awareness of heat waves and the threats that they pose but also to creating an approach that would allow for naming and ranking of heat waves similar to the naming and ranking of tropical cyclones. The work of the Alliance will focus on addressing the short- and long-term shocks and stresses from extreme heat, with a focus on vulnerable communities, by: educating decision makers and key stakeholders about the risks and impacts of extreme heat and how to reduce them; developing policy recommendations to reduce heat risk; providing better access to affordable capital for long-term interventions, such as building physical and financial resilience to heat, including creation of extreme heat-risk transfer insurance solutions; and implementing effective, on-the-ground heat-reduction interventions.

Speaking at the launch of the EHRA, CCRIF CEO, Mr. Isaac Anthony, commented on the proposed role of CCRIF and the support that the Facility could provide in the Alliance.

“ We now know that extreme heat is a major effect of climate change and will have significant impacts on the populations of our member countries especially the most vulnerable groups such as children, older people, persons with certain types of disabilities, and those with non-communicable disease such as heart diseases. We believe that we must quickly and better understand the depth and breadth of the impacts of these heat waves and it is an area that we will explore. We have joined the Alliance to lend and leverage our experience and to explore how CCRIF can support and provide a home for the risk and finance solutions created by the Alliance and its partners. ”



Peter Kuper / CartoonCollections.com

*Illustration by Peter Kuper on Naming Heat Waves as a means of increasing awareness about them and their impacts that was showcased at the launch of the EHRA and featured in the Washington Post*

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## **CCRIF makes US\$7.45 Million Payout to Haiti following Tropical Cyclone Laura**





Following Tropical Cyclone Laura which affected parts of Haiti in September, CCRIF made a payout of approximately US\$7.2 million to the Government on its Excess Rainfall (XSR) parametric insurance policy following three days of heavy rainfall associated with the system. The Government also received a payout of US\$290,925 under the Aggregate Deductible Cover (ADC), which is a special feature of CCRIF's Tropical Cyclone (TC) and Earthquake (EQ) policies, which may be activated to provide a minimum payout for TC and EQ events that are objectively not sufficient to trigger the main policy because the modelled loss is below the attachment point.

The total payment made to Haiti following TC Laura was therefore US\$7.45 million, inclusive of the ADC, which was paid to the Government within 14 days of the end of the rains associated with TC Laura. For the full article please visit our website at: <https://www.ccrif.org/news/haiti-receives-payout-ccrif-us745-million-following-passage-tropical-cyclone-laura>

*This is Haiti's 4<sup>th</sup> payout from CCRIF. Previous payouts have been US\$7.8 million following the 2010 earthquake, US\$20.4 million on the country's TC policy following Hurricane Matthew in 2016 which passed over Haiti as a powerful Category 4 hurricane and US\$3.0 million on the country's XSR policy for that same event. The payout of US\$20.4 million to Haiti following Matthew remains CCRIF's single largest payout to a member country. Reports on the use of payouts from the Government indicated that 1.5 million Haitians benefited from the payouts in 2016 as the Government used about 50 per cent of the funds to supply primarily children and the elderly with water, food and medication and provided funds to families to repair their homes. The remaining monies were used to repair critical infrastructure.*



## CCRIF Learning Corner

### The Aggregate Deductible Cover (ADC)

## **What is the ADC?**

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In 2017, CCRIF launched the ADC feature for its tropical cyclone and earthquake policies, which it provided at no cost to members to commemorate the Facility's 10<sup>th</sup> anniversary. Since the launch of this feature, CCRIF has continued to provide it to members at no cost except for one policy year when members were offered a 50 per cent discount on the cost of the feature.

## **When was the ADC Launched?**

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The ADC is a special feature of CCRIF's tropical cyclone (TC) and earthquake (EQ) parametric insurance policies. The ADC was designed to potentially provide a payment for TC and EQ events that are objectively not sufficient to trigger the country's main policy because the modelled loss is below the policy attachment point (which is similar to a deductible). The ADC also helps to address the issue of basis risk which is an inherent feature of parametric insurance in which some hazard events are missed by the models underpinning the policies. In this case, the ADC is able to reduce the probability of a missed payment when there may be losses on the ground but the country's parametric insurance policy is not triggered.

## **Have there been any payouts under the ADC?**

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Since 2017, CCRIF has made 20 ADC payments totalling over US\$2 million to 10 of its members. Payments were made following Tropical Cyclones Irma and Maria in 2017, Dorian in 2019 and Isaias, Laura and Nana in 2020 – as well as an earthquake in Haiti in October 2018. In many cases the ADC payments associated with tropical cyclones were in addition to payouts on countries' Excess Rainfall (XSR) policies, which were triggered by rains associated with those events. Like all CCRIF payouts, ADC payments are made within 14 days of the event.

The full list of all CCRIF payouts and ADC payments is available at: <https://www.ccrif.org/aboutus/ccrif-spc-payouts>



## **How are ADC payments calculated?**

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An ADC payment is made if the modelled loss is between 50% and 99% of the attachment point OR if it is between 10% and 49% of the attachment point *and* a Disaster Alert from the ReliefWeb website is issued for the event for that country.

## **What is the maximum payout a country can receive under the ADC?**

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The maximum ADC payment a country can receive after an event is the net premium paid for the TC or EQ policy by that country.

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## CCRIF Provides US\$189,000 in Scholarship Support to Caribbean Nationals for the 2020/21 Academic Year

For the 2020/21 academic year CCRIF has provided US\$189,000 for scholarships mainly under its two flagship scholarship programmes:

- The CCRIF Scholarship Programme which provides scholarships for postgraduate study at universities in the Caribbean region and universities in the USA, UK and Canada
- The CCRIF UWI Undergraduate Scholarship Programme

Of the total amount for scholarship support, The University of the West Indies received US\$100,000. The UWI Global Giving Initiative thanked CCRIF for its commitment to The UWI over the years and especially during this global pandemic in which many students' lives, families and finances have been adversely affected.



For the full article please visit the UWI TV website at: <https://uwitv.org/uwi-news/uwi-global-giving-thanks-ccrif-spc-for-contributing-over-us100000-in-scholarships>

Commenting on The UWI Global Giving, CCRIF CEO, Mr. Isaac Anthony himself a UWI alumnus, stated:

**“** Since 2010, CCRIF has been pledging support to The UWI for scholarships, recognizing the need to increase the cadre of professionals working in disaster risk management and environmental sustainability as a means of advancing the development prospects of the region. The scholarship programme has been able to provide much needed financial resources to students for fees and accommodation, helping to alleviate financial burdens. We are extremely happy to be associated with The UWI Global Giving as this initiative is proactive and dynamic, supporting tertiary level education through partnerships and innovative financing mechanisms. We are especially pleased this year to provide support to 14 students as we all continue to grapple with the socioeconomic impacts of COVID-19 which have been severe and swift. **”**

CCRIF's Chairman and Governor of the Eastern Caribbean Central Bank, Mr. Timothy Antoine, also a UWI alumnus, added his voice and support to UWI Global Giving stating that in this period of the pandemic, at least 10,000 students are at risk of not being able to complete their education because of the financial fall out and added that it is critical to help young people protect their future.



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“If we lose their future, we lose the future of our region and we cannot afford to step back in tertiary education right now,”

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For Governor Antoine’s remarks, please see <https://www.eccb-centralbank.org/news/view/governor-antoine-supports-uwi-global-giving-initiative>

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## CCRIF Scholarship Stats 2010 – 2020

Over the last 10 years, 2010 to 2020, under its scholarship programmes, CCRIF has provided to Caribbean nationals:

**93** Scholarships totalling: US\$\$1,448,791 (EC\$3.9 Million, JAM\$210 Million, BDS\$2.9 Million)

Of that total number,

- **UWI students have received 71 scholarships**
- **University of Technology Jamaica students have received 1 scholarship**
- **Caribbean nationals have received 21 extra-regional scholarships for study in the UK and USA**

*CCRIF Postgraduate Scholarship Winners 2020*

**Congratulations**





**Jamala Alexander, Trinidad and Tobago**

MSc Environmental Assessment & Management

University of Liverpool

Scholarship Award – US\$40,000

Jamala also was the recipient of a CCRIF-UWI Undergraduate Scholarship; she also was a CCRIF Intern, undertaking her internship at CDEMA in Barbados



**Mandela Christian, Commonwealth of Dominica**

MSc Hydrogeology and Water Management

Newcastle University

Scholarship Award – US\$40,000



**Abimbola Haughton, Jamaica**  
MSc Natural Resource Management  
The University of the West Indies, Mona



**Aaliyah D'Hereaux, Trinidad & Tobago**  
MSc Urban and Regional Planning  
The University of the West Indies, St. Augustine



**Tamera Little, Jamaica**  
MSc Built Environment  
University of Technology, Jamaica



**Orson Nixon, The Bahamas**  
MSc Natural Resource and Environmental Management  
The University of the West Indies, Cave Hill



**Romario Cumberbatch, Barbados**  
MSc Agri-Food Safety and Quality Assurance  
The University of the West Indies, St. Augustine



**Akil Crichlow, Trinidad & Tobago**  
MSc in Biodiversity Conservation and Sustainable Development in the Caribbean  
The University of the West Indies, St. Augustine

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**Our CEO, Mr. Isaac Anthony Featured in Leaders... His Perspectives on Resilience and Parametric Insurance...**



# Parametric Insurance

An Interview with Isaac Anthony, Chief Executive Officer, CCRIF SPC

**EDITORS' NOTE** Isaac Anthony was appointed CCRIF SPC's Chief Executive Officer on January 1, 2013. He has over twenty-five years of senior management experience spanning the areas of public finance, financial sector supervision and economic planning having held key positions with the Government of Saint Lucia including Permanent Secretary, Finance, Economic Affairs & National Development. Anthony was instrumental in the establishment of the Caribbean Public Finance Association and served as its first chairman. He has served on several boards, including those of CCRIF, the Caribbean Development Bank, and the Eastern Caribbean Central Bank, and is the current Chairman of the National Insurance Corporation in Saint Lucia and a Commissioner of the Eastern Caribbean Securities Regulatory Commission.



Isaac Anthony

Hurricane Ivan which resulted in regional losses totaling over \$6 billion.

The Caribbean Catastrophe Risk Insurance Facility (CCRIF) was established in 2007, and in 2014 was officially renamed CCRIF SPC. CCRIF SPC is the world's first multi-country risk pool based on parametric insurance. Parametric insurance is generally less expensive than an equivalent traditional indemnity insurance product as it does not require a loss assessment procedure after a disaster, allowing for claims to be settled quickly and in the case of CCRIF, within 14 days of the event. This is an important feature considering the urgent need for quick liquidity after a natural disaster. CCRIF SPC is owned, operated and registered in the Caribbean and our mission is to assist our member governments and their communities in understanding and reducing the socio-economic and environmental impacts of natural catastrophes.

We currently offer four parametric insurance products for natural disasters, earthquakes

**How have CCRIF SPC's efforts and focus evolved since its creation?**

In 2014, the Facility was restructured into a segregated portfolio company (SPC) to facilitate offering new products and expansion into new geographic areas. Since then, CCRIF welcomed Central American countries to the pool and also introduced two new products, the excess rainfall product in 2014 and COAST (Caribbean Ocean and Aquaculture Sustainability Facility) for the fisheries sector in 2019, the first such product in the world.

But beyond insurance, we are also working with our members in other areas of disaster risk management. In 2010, CCRIF launched a technical assistance (TA) program to provide an ongoing mechanism to support efforts that build resilience, thereby contributing to the long-term sustainability of the region. Under this TA program we provide scholarships and internships to young persons. We have in place a Small Grants Programme, through which CCRIF finances disaster risk reduction projects being implemented by NGOs, CBOs, and academic institutions in local communities. We also an

**COMPANY BRIEF** CCRIF SPC's goal was to be a



CCRIF CEO, Isaac Anthony is featured in Leaders Magazine October, November, December 2020 edition on Resilience alongside other leaders such as: Christine Lagarde, President, European Central Bank; Kristalina Georgieva, Managing Director, International Monetary Fund; Dr. Rajiv J. Shah, President, The Rockefeller Foundation; Kathy Baughman McLeod, Senior Vice President & Director, Adrienne Arsht-Rockefeller Foundation Resilience Center at the Atlantic Council; and Cesar Conde, Chairman, NBC Universal News Group. During an interview he shared his perspectives on resilience and parametric insurance, the organization he leads, CCRIF SPC, and his leadership style.

LEADERS is the only worldwide magazine that deals with the broad range of leadership thoughts and visions, giving voice to the world's most innovative and thoughtful leaders towards inspiring leaders across the globe.

## Some takeaways from the interview...

### On Leadership Style...

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*I do not like to categorize my leadership style by one type but rather I think I have a unique leadership style that draws from many conventional leadership styles. I see myself as a coach, a visionary, a servant, and highly democratic and strategic. For example, I always like to involve my colleagues in decision making but will make decisions when needed. I like to set targets so as a team we know where we are going and can clearly mark our milestones. I live by the notion of continuous improvement and employ this in leading. I am a diplomat at heart but also a visionary and risk taker and therefore can easily create an environment to usher in change and innovation which has been a hallmark of CCRIF's successes.*

### On Building a Resilient Organization...

*A resilient organization is one that can quickly adapt to change and new circumstances which means that these organizations have:*

- 1. Dedicated and motivated staff that are empowered*
- 2. Strong leadership*
- 3. An organizational culture underpinned by innovation and continuous improvement*
- 4. A dynamic operating environment that fosters trust, transparency and accountability*

### On Being Born Resilient and Learning to be Resilient

*I am not sure I would say that we are born resilient, I would rather like to say that our life experiences play a key role in building our resilience. In the Caribbean, which is where I am from, I think that we believe that our family background, economic and social circumstances, beliefs and customs shape who we are and are partly responsible for our resilient nature, allowing us to use our intuition to respond to almost any adversity that we meet along life's way. I also think that our everyday experiences shape our ability to respond to and manage stressors.*

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To view the full set of interviews and articles in the Leaders Magazine click this link:  
[http://www.leadersmag.com/issues/2020.4\\_Oct/toc20204.html](http://www.leadersmag.com/issues/2020.4_Oct/toc20204.html)

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**CCRIF and UWI Launch Course in Disaster Risk Financing and Parametric Insurance for Small Island Developing States**







# FUNDAMENTALS OF DISASTER RISK FINANCING FOR ADVANCING SUSTAINABLE DEVELOPMENT OF SMALL ISLAND DEVELOPING STATES (SIDS)

A UWI OPEN CAMPUS CONTINUING AND PROFESSIONAL EDUCATION ONLINE COURSE

**November 3, 2020 - February 9, 2021**

TUESDAYS || 3:30 BZ/4:30 JA/5:30 EC

5 UNITS

40 CONTACT HOURS

4 CONTINUING EDUCATION UNITS (CEUs)

**APPLY NOW!**

DEADLINE: OCT 27, 2020

**SCHOLARSHIPS AVAILABLE**

DEVELOPED IN PARTNERSHIP WITH



**COURSE:** [open.uwi.edu/disaster-risk-financing](http://open.uwi.edu/disaster-risk-financing)

**SCHOLARSHIP:** <https://www.ccrif.org/ccrif-spc-uwi-open-campus-fundamentals-disaster-risk-financing-online-course>

The course “*Fundamentals of Disaster Risk Financing for Advancing Sustainable Development of Small Island Developing States*”, is a 40-contact-hour course, which focuses in large measure on enhancing the understanding and use of tools used in disaster risk financing and the important role these tools play in advancing debt and fiscal sustainability of countries. The course also explores the rationale for countries to have in place disaster risk financing policies and strategies and how these can be developed to complement countries’ comprehensive disaster risk management policies. It also introduces CCRIF SPC as the Caribbean region’s main disaster risk financing facility for parametric insurance and how parametric insurance and the models underpinning it work. Additionally, the course examines the range of other ex-ante and ex-post disaster risk financing instruments and how these work alongside each other. The linkages between shock responsive social protection and disaster risk financing within the context of vulnerable populations also are explored. The course comprises five units as follows:

- UNIT 1: The Caribbean’s Natural Hazard Landscape and Profile
- UNIT 2: Introduction to Disaster Risk Financing
- UNIT 3: Introduction to Integrated Risk Management and All Hazards Risk Policy Frameworks
- UNIT 4: Parametric Insurance and Risk Modelling
- UNIT 5: Shock Responsive Social Protection, DRM and Insurance

**Apply for course today: <http://open.uwi.edu/disaster-risk-financing>**  
**Scholarships are available! Apply at: <https://www.ccrif.org/ccrif-spc-uwi-open-campus-fundamentals-disaster-risk-financing-online-course>**

In preparation for the institutionalization of the course and delivery of the course in October 2020, a five-day train-the-trainer workshop was held with UWI lecturers who are prospective lecturers for the course. The workshop was held online over five weeks - July 1 – 29 2020, totalling 25 hours of instruction.



Participants engaged in lectures and discussions centred on topics including, among others, the impact of natural hazards in the Caribbean; disaster risk financing; disaster risk financing instruments such as CCRIF SPC’s parametric insurance, Cat DDOs, and contingent credit facilities; an in-depth analysis of CCRIF’s models, policies, and country risk profiles; and an introduction to CCRIF’s WeMAP hazard monitoring and forecasting tools.

“*The technical content was explained in an understandable manner. The products and underlying inputs and considerations are very clear. Managers in the public sector should have a proper understanding of what the products provide, the underlying factors and the benefits re management of public sector risks. I highly recommend this course for students in public policy/public sector management.*” **Comment on the course from a UWI lecturer and a participant in the train-the-trainer.**



## We Pivoted!

### Cancelled 2020 Internship Programme and Launched Course in Disaster Risk Financing for University Students and Graduates

Due to restrictions on international travel, local movement of persons, and gatherings etc. posed by the COVID-19 pandemic, CCRIF was left with no choice but to cancel its 2020 Internship Programme – a Programme that young university graduates look out for each year to capitalize on the opportunities and experiences that it provides. Notwithstanding, the Facility decided to find another way to engage young persons over the summer, especially those who would have normally applied for a fully-funded CCRIF internship. In July, CCRIF in collaboration with UWI Open Campus launched a 16-hour online course “Disaster Risk Financing, CCRIF Parametric Insurance Policies and the



Relationship with Fiscal and Economic Policy” for recent graduates. A total of 76 persons from across the Caribbean completed the course and were provided with a joint CCRIF/UWI Certificate of Completion as well as 1.6 continuing education units.

## *How participants felt about the course....*

*The course was great. To date it's one of the best online courses I have attended especially in terms of the discussions. Very interactive and informative.*

*My knowledge on disaster risk financing has been enhanced as a result of this course and I will definitely use the information garnered in my work as a disaster manager.*

*I thoroughly enjoyed pursuing this course and looked forward to the online sessions each week. The course lecturers thoroughly executed the presentations. I now understand the significant role that fiscal policies play in determining the best disaster risk management and mitigation measures for the SIDS in the Caribbean Region as well as the difference it has made in disaster response and recovery efforts post disaster.*

*The course was a great investment for the region. Not only did the course expose participants to knowledge and skills that are useful in CCRIF but it provided an avenue for participants to share the information to relevant local bodies.*

*The approach to teaching and learning was different from what I was used to. It was not rigid and more independent. I was able to foster an independence that was not properly gained before.*

We anticipate that the CCRIF Regional Internship Programme will return in 2021. However, the online course in Disaster Risk Financing has become part of CCRIF's course offerings for recent graduates, university students and professionals across the region and may be offered again before the end of 2020.

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## **CCRIF and UNECLAC to Implement New Work Plan focusing on the Use of Geospatial Technologies in Disaster Risk Management**



Since 2010, CCRIF and ECLAC have engaged in the signing of Memoranda of Understanding (MOUs) aimed at advancing mutual areas of interest in disaster assessment, prevention and mitigation. The expected outcome of the CCRIF ECLAC MOUs is geared towards achieving shared knowledge and support for policy formulation while promoting the integration of activities for disaster risk reduction and recovery within the context of advancing sustainable development.

These MOUs have been underpinned by work plans which are usually funded by CCRIF. Over the years, for example, CCRIF has supported ECLAC to provide training to countries in the Damage and Loss Assessment (DaLA) methodology and in undertaking technical studies such as an *“Assessment of Strategies for Linking ECLAC’s Damage and Loss Assessment Methodology to the Post-Disaster Needs Assessment”* and *“The Review of ECLAC’s DaLA Methodology in the Caribbean”*, among others.

This 4<sup>th</sup> work plan that CCRIF and ECLAC are currently implementing will focus on the use of geospatial technologies to support comprehensive disaster risk management. Geospatial technologies refer to the range of modern tools contributing to the geographic mapping and analysis of the Earth and human societies. These technologies are continuously evolving and are increasingly being deployed in a variety of fields and sectors, informing decision makers on topics such as disaster risk reduction, biodiversity conservation, forest fire suppression, agricultural monitoring, humanitarian relief, and urban planning among other areas. Geospatial technologies hold the potential to significantly improve strategies and actions for the mitigation of, and adaptation to, the negative impact of natural hazards. Activities to be implemented are:

- The development of a technical study on the application of Geospatial Technologies in Disaster Risk Management (DRM) in the Caribbean (selected case studies)
- Workshop for Policy Makers on Application of Geospatial Technologies for DRM aimed at providing an opportunity for DRM professionals and policy makers to learn about and discuss the latest advances in geospatial technologies and their potential application to DRM in the Caribbean subregion
- Preparation of a policy brief to be shared with policy makers across the Caribbean

### *CCRIF MOUs and Partnerships with Disaster Risk Management and Development Entities...*

Currently, CCRIF has MOUs or agreements with 11 organizations – and previously had MOUs with two other organizations. These MOUs are accompanied by work plans, many of which are funded by CCRIF.

<b>MOU Partner Organization</b>	<b>Purpose/Focus of MOU</b>
Adrienne Arsht-Rockefeller Foundation Resilience Center (AARFRC)	To reduce climate-related risks and building resilience in CCRIF member countries, with a focus on replication and scaling up – through initiatives including building a Cooler Cities Finance Facility and developing risk literacy programmes targeting senior policy makers.
Association of Caribbean States (ACS)	To collaborate on efforts towards mainstreaming disaster risk management in the wider Caribbean within the context of Agenda 2030 Sustainable Development Goals as well as the Sendai Framework for Disaster Risk Reduction 2015-2030 and their priorities for action.
Caribbean Community Climate Change Centre (CCCCC)	To assist the governments of Caribbean states in understanding the risks of climate change to the economies and people of the region and in identifying possible cost-effective adaptation measures to support greater resilience at the local, national and regional level. Current focus is on revision of the Regional Strategic Framework for Achieving Development Resilient to Climate Change to ensure that it responds appropriately to the Paris Agreement from COP 21 and addresses other risks such as the COVID-19 pandemic.
Caribbean Disaster Emergency Management Agency (CDEMA)	To strengthen and expand mutual efforts towards the promotion of Comprehensive Disaster Management (CDM) within the Caribbean region, including examination of building code standards and legislation. CCRIF has been a sponsor of the Caribbean Conference on CDM, hosted by CDEMA and national disaster management agencies since 2009.
Caribbean Institute for Meteorology and Hydrology (CIMH)	To collaborate on data gathering and research/development for extreme hydro-meteorological events and capacity development for climate professionals in the Caribbean – through enhancement of measuring networks for extreme wind, rainfall, streamflow and drought events; impact analysis of hydro-meteorological events; and development and expansion of



	analysis of hydro-meteorological events, and development and expansion of data, tools and products for real-time storm forecasting.
Caribbean Regional Fisheries Mechanism (CRFM)	To collaborate on the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) initiative, which will help to reduce the risk that climate change poses to the fisheries sector. This includes exploration and promotion of microinsurance products for stakeholders in the fisheries and aquaculture industries and promotion of climate-resilient fishing, fish farming and resource management practices among CRFM Member States.
Coordination Center for the Prevention of Natural Disasters in Central America (CEPRENAC)	To support Central American countries to build disaster resilience through better access to risk transfer instruments as well as to promote disaster risk reduction.
Organisation of Eastern Caribbean States (OECS)	To reduce vulnerabilities to natural hazards and climate change in OECS Member States. Current focus is on conducting assessment of vulnerable communities and developing strategies, action plans and projects for funding for increasing resilience in OECS member countries.
Regional Committee on Hydraulic Resources (CRRH)	To support Central American countries to build disaster resilience through improved risk transfer instruments as well as to promote the development and use of high-quality climate data.
United Nations Economic Commission for Latin America and the Caribbean (UNECLAC)	To assist the governments of Caribbean States to adopt policies and disaster risk reduction and mitigation strategies that minimize the socioeconomic, physical and environmental damage caused by natural disasters.
The University of the West Indies (UWI)	To collaborate in the areas of disaster risk management, including modelling and disaster risk financing, climate change adaptation and research and capacity building towards creating a cadre of individuals who can effectively support the development priorities of countries in the region.
<b>Previous MOUs</b>	
Inter-American Development Bank (IDB)	To expand on the Economics of Climate Adaptation (ECA) study in the Latin American and Caribbean regions in support of enhanced decision making in light of climate change impacts. The study, “Understanding the Economics of Climate Adaptation in Trinidad and Tobago” was produced.
UWI Seismic Research Centre (SRC)	To establish and maintain a new accelerometric network in the Eastern Caribbean and Jamaica to enhance the capability for identifying and mitigating seismic risk in the Caribbean. A total of 15 strong motion sensors were installed – or existing sensors updated – in Grenada, Barbados, Saint Lucia, Dominica, Antigua, St. Kitts, Nevis, St. Vincent, and Jamaica.

**Spotlight on CCRIF Small Grants Programme... *building the resilience of local communities across the small island and coastal states of the Caribbean***



**CCRIF Approves 5 Grants this Quarter to Support Disaster Risk Reduction in Communities across the Region**



CCRIF recently approved five grants totalling US\$110,189 to NGOs to implement projects to increase resilience to natural hazards and climate change in communities across seven countries. As shown in the table below, these projects will be implemented in Jamaica, Haiti, Dominica, Grenada, St. Vincent & the Grenadines, Saint Lucia, and Trinidad & Tobago.

***Since 2015, CCRIF has provided 19 grants for community disaster risk reduction and climate change adaptation projects totalling more than US\$640,000 to 11 organizations and 2 departments of The University of the West Indies...towards enhancing the resilience of communities across the region***

Organization and Country	Description of CCRIF-funded Project	Grant (US\$)
<p>Caribbean Policy Development Centre (CPDC)</p> <p>Dominica, Grenada, St. Vincent &amp; the Grenadines</p> <p><i>Based in Barbados, CPDC is a coalition of Caribbean NGOs and aims to sensitize NGOs and the general public on key policy issues and to impact policy makers on decisions which put the interest of Caribbean people at the centre of Caribbean development.</i></p>	<p>Strengthening the capacity of small farmers in Dominica, Grenada, St. Vincent &amp; the Grenadines to respond to the effects of natural disasters – through preparation of a training manual and conducting farmer workshops on the socio-economic effects of natural disasters on their farming operations and how to apply climate adaptation and disaster risk management measures</p> <p><b>Overall Project Impact:</b></p> <p>This project will improve the long-term livelihoods of farmers who are vulnerable to torrential rains, flooding, sea level rise and droughts.</p>	24,960
<p>IAMovement</p> <p>Trinidad &amp; Tobago</p> <p><i>IAMovement is a grassroots non-profit organization which was founded by a group of young people who came together, aiming to effect positive social and environmental change.</i></p>	<p>Using vetiver grass to stabilize hillside farming areas in 2 rural communities in Trinidad, Moruga and Paramin, and building farmers' capacity to maintain the vetiver system.</p> <p><b>Overall Project Impact:</b></p> <p>The project will reduce the vulnerability of these communities to excess rainfall, soil erosion, flooding etc. which has resulted in damaged roads, homes and other infrastructure and will contribute to more sustainable livelihoods as it relates to agricultural production.</p>	23,000
<p>The CaribShare Company</p> <p>Jamaica</p> <p><i>CaribShare is a not-for-profit social enterprise dedicated to promoting and developing biogas technology and other climate resilience building solutions in Jamaica and the Caribbean.</i></p>	<p>Rehabilitating the soil ecosystem by applying liquid organic fertilizer from the company's waste-to-fertilizer programme to facilitate climate resilient sustainable agriculture in the coastal small farming community of Braco, Trelawny in Jamaica.</p> <p><b>Overall Project Impact:</b></p> <p>The project will strengthen community support for agriculture as an alternative to tourism as a source of livelihood.</p>	24,000
<p>Unite Caribbean Ltd.</p> <p>Saint Lucia</p> <p><i>Unite Caribbean is a development cooperation Consulting Firm</i></p>	<p>Public awareness component within the RePLAST-OECS Pilot Plastic Recycling Project. The overall project is designed to create a sustainable solution to the issue of plastic disposal in the OECS Member States. The public awareness activities will include a Meet a RePLAST Hero Series, videos etc.</p> <p><b>Overall Project Impact:</b></p> <p>The project will create a system that moves from collection to export, thus removing Polyethylene Terephthalate (PET) and High-Density Polyethylene (HDPE) plastic bottles from the environment while also creating new financial flows from the export of plastic to be recycled.</p>	24,000
<p>Fondation Amour de Dieu en Action (FADA)</p> <p>Haiti</p> <p><i>FADA is a humanitarian non-governmental organization</i></p>	<p>Building a footbridge over the River Maniche to connect the city centre of Maniche with the surrounding areas during times of flooding when the river overflows.</p> <p><b>Overall Project Impact:</b></p> <p>The project will facilitate the movement of humanitarian aid during emergencies so that 8,000 inhabitants of the 8th communal section that tend to be cut off during period of tropical cyclones and heavy rainfall can access aid.</p>	14,229

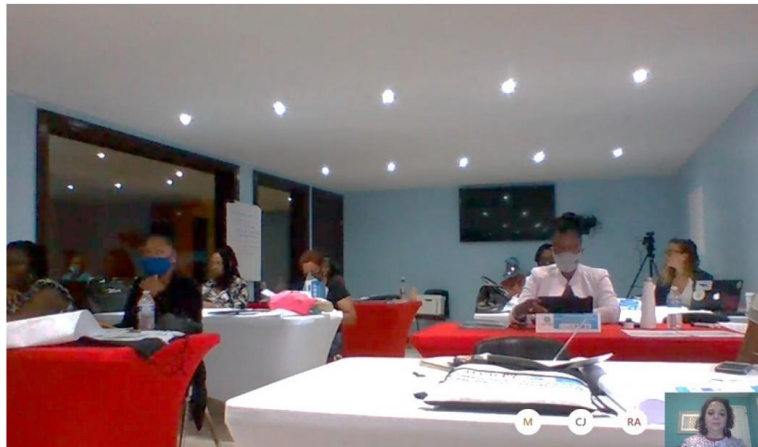
## CCRIF Supports Communities in the Virgin Islands (BVI) with Project Proposal Writing

CCRIF SPC is partnering with the Caribbean Development Bank in its Community Disaster Risk Reduction Fund project, supported by the European Union and the Government of Canada, which focuses on improving inclusive disaster risk management through strengthening communities. During October 5-8, CCRIF led sessions on proposal writing in two workshops – for senior public sector officers and executive committee members of community groups – which were hosted by the British Virgin Islands Department of Disaster Management.



**Community Disaster Risk Reduction Fund**  
in collaboration with the  
**Department of Disaster Management**  
and  
**CCRIF SPC**  
present  
**Community Group Capacity Building  
and Proposal Writing Workshop  
for Public Sector Officers**

The workshops aimed to enhance the network of public sector officers who are able to assist community groups and increase the effectiveness of community groups and their ability to develop local projects and prepare proposals to fund project implementation. Participants were introduced to the **CCRIF Small Grants Programme** and were guided through the requirements of the programme, navigating the online application platform, and provided with information and guidelines for writing successful proposals. Fifty persons benefitted from the training.



*The workshops used a hybrid approach with participants gathered in Tortola (using masks and physical distancing) and the facilitators joining remotely – an example of the “new-normal” in these current times of COVID-19.*

For additional information on the workshops, visit:

<https://bvi.gov.vg/media-centre/50-persons-benefit-grant-proposal-training>

## Spotlight on CCRIF Support to Building Resilience of its Members

**CCRIF Supports the Government of Belize to Expand its Ability to Monitor, Record and Forecast Rainfall - Belize now has 70 per cent weather station coverage across the country**

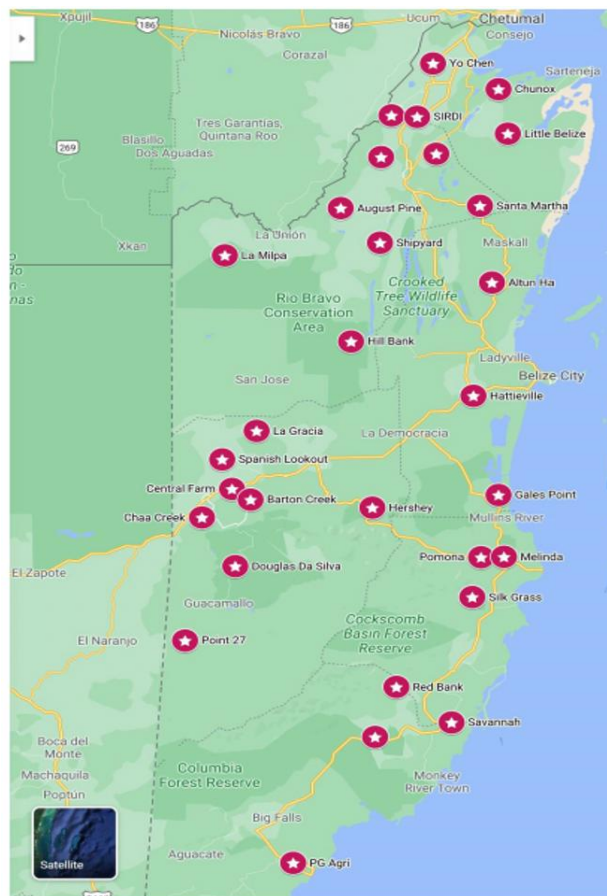
In 2017 CCRIF provided a grant of US\$100,000 to the Government of Belize to obtain 30



automated weather stations to provide the National Meteorological Service (NMS) with access to real-time rainfall data to improve the Government's ability to monitor, record and forecast rainfall within Belize and better prepare the country and communities in general for hydro-meteorological events.

Before the installation of the new automated weather stations, NMS operated 20 manual weather stations. The new automated weather stations were installed at the same locations as the manual stations to enable data from the manual and automated stations to be compared, plus 10 additional locations. The new stations store data every 5 minutes and these data are transmitted to the NMS office every 30 minutes. This real-time flow of data allows the NMS forecasters and meteorologists to monitor and provide alerts in near real time during severe weather events such as the heavy rains which affected the country in July 2020.

Also under the project, the data loggers were upgraded at some of the most important locations such as at the airstrips on San Pedro, Ranchito, Dangriga, Placencia and Punta Gorda. The National Met Service ensured that the spatial distribution of the stations could adequately capture the climate variability across Belize.



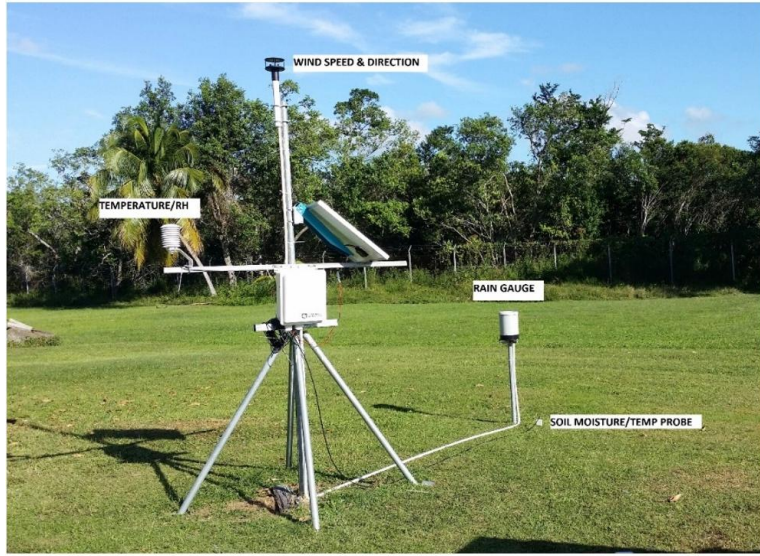
*Thirty CCRIF-funded automated weather stations were installed throughout Belize.*

With the installation of the 30 CCRIF-funded stations the NMS now has an impressive number of working weather stations (52) with comprehensive spatial distribution across Belize. In a 2020 analysis of the regional hydro-meteorological network commissioned by CCRIF, the Caribbean Institute for Meteorology and Hydrology (CIMH) has estimated that 70 per cent of Belize is covered by rain gauges and/or automated weather stations – one of the highest rates among the 19 Caribbean CCRIF member countries.

**“***The network of automatic stations, including the 30 stations installed with the CCRIF grant, was a vital component of the different tools used by the NMS of Belize to track the recent approach and landfall of Hurricane Nana on Belize on the night of September 2, 2020. Additionally, data from these stations helped personnel of the NMS to identify the wind and rainfall impacts from the storm.* **” Ronald Gordon – Deputy Chief Meteorologist**

In addition to the significant increase in real-time data available for forecasting, invaluable partnerships also have been established with

entities such as the Sugar Industry Research and Development Institute (SIRDI), the Ministry of Agriculture and individual farms that helped in the installation process and also assisted in the procurement of sensors that would help to monitor ambient air temperature, wind speed and soil temperature and moisture on farms in the northern part of the country.



*A weather station fitted with other equipment to measure soil moisture etc. to provide additional data for SIRDI*

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