



October - December 2020 - Issue #17

New Year Message from CCRIF CEO, Mr. Isaac Anthony

in



As we welcome 2021, we do so knowing that our members, stakeholders, colleagues, friends and indeed the rest of the world continue to experience uncertainty associated with the COVID-19 pandemic. The global outbreak and spread of COVID-19 continue to affect every one of us. Also, the 2020 Atlantic Hurricane season, the most active in history, resulted in a double blow to many of our member countries, causing much devastation.

Our thoughts remain with you and our prayers and hearts go out to the families that have been directly impacted by the virus as well as the many tropical cyclone events that happened in 2020.



Isaac Anthony Chief Executive Officer We will continue to work, as like you, we know that we cannot lose sight of the many natural hazards – tropical cyclones, excess rainfall and earthquakes – that countries in the Caribbean and Central America are exposed to. I take this opportunity to assure our member governments that our top priority is to continue to serve you and ensure that we are able to fulfil our value proposition of providing quick liquidity within 14 days of a natural hazard event once a policy is triggered, so that you could begin the process of recovery immediately and support the most vulnerable in your populations. During the 2020 Hurricane Season we made 8 payouts to 6 member governments totalling US\$45 million.

As we all come to terms with the "new normal" brought on by the COVID-19 pandemic, 2021 will be challenging, but we are committed and determined to be a development insurance

company that supports our members' efforts to advance their sustainability agendas. We continue to strive to ensure that we meet and exceed your expectations and we will continue to combine innovation with creative flair to assist our member governments to increase their resilience to natural hazards.

This year, we will work with our members, donors and wider stakeholders across the Caribbean and Central America to advance our strategic agenda – taking best practices and the views and perceptions of our stakeholders into our new planning cycle as we seek to make our contribution in this Decade of Action toward achieving the UN Sustainable Development Goals. We are poised for the challenges ahead and look forward to the long term, to working with you, our stakeholders, and to continuing to create value and advance the sustainable prosperity of the small island and coastal states of the Caribbean and Central America.

Despite the many challenges we continue to confront, we are looking forward to 2021 with renewed hope. As has been our custom as a virtual company for the past 13 years, we will continue to engage with you online and eventually face-to-face when we can safely do so again. Keep safe and continue to practice all the necessary protocols, knowing that amidst the anxiety, better and brighter days are coming – Happy New Year!

Yours truly, Isaac Anthony CEO, CCRIF SPC

Recap of the 2020 Atlantic Hurricane Season – CCRIF Made 8 Payouts to 6 Member Governments totalling US\$45 Million



The 2020 Atlantic Hurricane Season, which ended on November 30, 2020, was the most active Atlantic hurricane season on record in terms of the number of tropical cyclones – recording 30 named storms (maximum winds of 39 mph (63 km/h) or greater), of which 13 became hurricanes (maximum winds of 74 mph (119 km/h) or greater), including 6 major hurricanes, (maximum winds of 111 mph (179 km/h) or greater). The 2020 and 2005 Atlantic hurricane seasons are the only ones to feature the Greek letter storm-naming system. Whilst the hurricane season officially starts on June 1 each year, the 2020 season witnessed pre-season cyclones Arthur and Bertha on May 16 and 27 respectively.

During the first half of CCRIF's policy year, which began on June 1st 2020, CCRIF made 8 payouts totalling about US\$45 million to 6 member governments in the Caribbean and Central America. Seven of these payouts were directly related to tropical cyclone events. Member governments receiving payouts during the 2020 Hurricane Season were:

- Government of Guatemala CCRIF paid the Government of Guatemala US\$3.6 million under its Excess Rainfall (XSR) parametric insurance policy for nine days of rain that occurred during Tropical Storms Amanda and Cristobal. The policy was triggered by rains that started on May 31. Amanda, which originated in the Pacific Ocean, initially made landfall on Guatemala's Pacific coast on May 31, causing flooding and landslides. This tropical storm dissipated but the remnants reorganized to become Tropical Storm Cristobal, the third storm in the Atlantic Basin, on June 1 a rare cross-over tropical cyclone with origins in the Pacific Basin. Amanda and Cristobal led to over a week of devastating rainfall across parts of Central America.
- 2. *Government of Belize* CCRIF made a payout of US\$203,136 to the Government on its XSR parametric insurance policy following three days of heavy rains during Tropical Storms Amanda and Cristobal.
- 3. *Government of Haiti* CCRIF made a payout of approximately US\$7.2 million to the Government on its XSR parametric insurance policy following three days of heavy rainfall associated with Tropical Cyclone Laura.
- 4. *Government of Nicaragua* CCRIF made 3 payouts totalling US\$30.6 million to the Government of Nicaragua under its Tropical Cyclone (TC) and XSR parametric insurance policies following the passage of Tropical Cyclones Iota and Eta, which made landfall as Category 4 hurricanes along the Nicaraguan coast within two weeks of each other in November 2020. Both hurricanes resulted in landslides and

flooding, displacing thousands, with Nicaragua's National Disaster Prevention System (SINAPRED) reporting that at least 16 persons had died and many were still missing.

- 5. *Government of Jamaica* CCRIF made a payment of US\$3.5 million to the Government of Jamaica on its XSR policy due to the impacts of rainfall associated with Tropical Cyclones Zeta and Eta in October and November 2020, respectively, which caused loss of lives and significant damage, particularly to the country's road network. Three discrete but significant rainfall events associated with these two storms occurred within a two-week period and can be considered as highly unusual even in an active Atlantic Hurricane Season.
- 6. *Government of Trinidad & Tobago* CCRIF made a payment of US\$176,146 to the Government for a rainfall event on the island of Tobago, which was associated with a Covered Area Rainfall Event (CARE), which started on August 31 and ended on September 2, 2020.

On CCRIF Payouts during the 2020 Hurricane Season:

Following the payout to the Government of Haiti, Minister of the Economy and Finance, Michel Patrick Boisvert, commented:



Purchasing parametric insurance offered by CCRIF is part of the Haitian Government's approach to improving the financial management of natural disaster risks in order to reduce their effects on public finances. Thus, the payout of \$7.195 million provided by CCRIF to Haiti following the heavy rainfall

caused by the passage of Tropical Storm Laura in August will allow us to address current emergencies, notably the implementation of action programmes to rehabilitate affected areas and protect vulnerable social groups.



On the announcement of the payout following TC Eta, Nicaragua's Minister of Finance and Public Credit, His Excellency Iván Acosta commented:

"We want to extend our recognition for the excellent work by the team of CCRIF SPC, for their effectiveness in their mission to serve the peoples of Central America and the Caribbean in their

moments of greatest need, such as when they face a climatic or catastrophic event."



2020 was an extraordinary year globally, and moreso for countries in the Caribbean and Central America, which were not only grappling with the effects of COVID-19 but also with the impacts of climate change. CCRIF member governments have been confronted with the dual effects of increasing damage and loss due to the frequency and intensity of tropical cyclones as well as a range of socioeconomic impacts as a result of COVID-19, all within the context of diminishing fiscal space and a not so positive economic outlook.



CCRIF Provides Additional Tuition Support to UWI Students under its COVID-19 Response Initiative

On November 26, CCRIF SPC presented a cheque for US\$250,000 (J\$35 million) to The University of the West Indies (The UWI) for scholarships and for covering the tuition fees of students who were in need of financial support for academic year 2020/21.



L-R: Pro-Vice Chancellor and Mona Campus Principal, Prof. Dale Webber; UWI Mona Guild President Sujae Boswell, University Registrar Dr. Maurice Smith; CCRIF Scholar Matthew Arnold; Elizabeth Emanuel, CCRIF Technical Assistance Manager and Corporate Communications Manager; and Mrs. Saundra Bailey, CCRIF Board Member at the handing over of US\$250,000 (J\$35 million) for Scholarships and Tuition Support to The UWI

Approximately US\$108,000 or J\$15 million of the US\$250,000 (J\$35 million) was allocated for scholarships for 2020/21 at the undergraduate and postgraduate levels and this is about the usual amount that CCRIF has been providing to The UWI annually since 2010. The remaining US\$142,000 or J\$20 million was provided to cover the tuition fees of the most needy students, who due to the COVID-19 pandemic, were finding it difficult to pay tuition and who were at risk of either being de-registered or not completing their studies. This latter support was part of CCRIF's COVID-19 response geared to supporting its members and other key stakeholders.

According to Saundra Bailey, CCRIF Board Member

Since 2010, CCRIF has provided The UWI with 71 scholarships totalling US\$761,230 or almost J\$107 million. CCRIF continues to view its investments in scholarships as critical to building a cadre of individuals who possess the knowledge and skills to advance the resilience of the small island and coastal states of our region.

> Outside of support to students at The UWI, graduates of The University also have benefited from CCRIF scholarships to study for postgraduate degrees in the USA and the UK as well as internships at national and regional organizations involved in disaster risk management and meteorology and



at a number of departments and centres of The University itself such as the Disaster Risk Reduction Centre, Climate Studies Group Mona and the Seismic Research Centre.



Publications Alert

Publication # 1CCRIF Annual Report 2019/20Availableat:



https://www.ccrif.org/publications/annual-report/ccrif-spc-annual-report-2019-20

Key Highlights of the report include:

- 2019/20 Performance Highlights and Achievements
- The year in Review 2019/20
- Progress and Activities under each of the Facility's 7 Strategic Objectives
- The Facility's Corporate Governance and Financial Sustainability Framework
- A focus on the Facility's engagement with its stakeholders
- The Facility's Audited Financial Statements





Publication # 2 CCRIF Technical Paper Series #4... A Collection of Papers and Expert Notes on Disaster Risk Financing and Disaster Risk Management ... Highlighting academic papers prepared by a selection of CCRIF scholarship winners

In November 2020, CCRIF launched the publication "A Collection of Papers and Expert Notes on Disaster Risk Financing and Disaster Risk Management ... Highlighting academic papers prepared by a selection of CCRIF scholarship winners" at the University of the West Indies Regional Headquarters and handed over copies of the publication to The UWI for

placement in libraries across the four campuses. The publication can be downloaded at: https://www.ccrif.org/publications/technical-paper/ccrif-spc-technical-paper-series-volume-4-collection-papers-expert



Elizabeth Emanuel (L), CCRIF Technical Assistance Manager and CCRIF Corporate Communications Manager presents a copy of Technical Paper Series #4 to University Registrar Dr. Maurice Smith.

This collection of papers highlights research conducted by nine recipients of CCRIF scholarships between 2010 and 2017. The academic papers include papers completed as part of course work, extracts from dissertations, as well as complete dissertations – all submitted as part of their degree requirements. The papers demonstrate the diversity of research topics undertaken by CCRIF scholarship recipients – which range from social issues such as a discussion of whether disaster scenes should be "off-limits" to victims' relatives, and climate and risk communication to an analysis of the financial services sector responses to climate change risks to more technical discussions such as seismic analysis and fragility assessment of reinforced concrete structures.

The publication also presents a selection of Expert Notes, in the form of speeches presented by members of the CCRIF Management and Team at regional and international fora, focusing on disaster risk financing. The purpose of this Technical Papers Series is to share with our stakeholders some of the innovative research and ideas about disaster risk management, disaster risk financing and climate change – as well as the role that CCRIF and its parametric insurance policies can play in advancing sustainable development in the region. This 4th volume builds on Volume 3 of the technical series, "A Collection of Papers ... Showcasing the Work of CCRIF Scholarship Recipients 2010 - 2012" 2014(https://www.ccrif.org/en/publications/technicalpublished in September paper/ccrif-technical-paper-series-volume-3-september-2014), which presents dissertations and papers by four previous CCRIF scholarship recipients.



L-R: Mrs. Saundra Bailey, CCRIF Board Member; Pro-Vice Chancellor and Principal at the Mona Campus, Prof. Dale Webber; and Elizabeth Emanuel, CCRIF Technical Assistance Manager and Corporate Communications Manager pore over the new publication at UWI Regional HQ



Publication # 3 "Climate Risk Insurance in the Caribbean: 20 lessons learned from the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project"

In November 2020 at the 16th International Inclusive Insurance Conference and at the end of the 11th Session of the Conference which focused on "Leveraging Sovereign Insurance for Building Scale: Exploring Tools and Strategies for Scaling Up and Reaching Intended Beneficiaries", the publication "Climate Risk Insurance in the Caribbean: 20 lessons learned from the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project"

was launched. The publication is a collaborative effort of the Munich Climate Insurance Initiative (MCII), CCRIF SPC, and the International Labour Organisation's (ILO's) Impact Insurance Facility.

The CRAIC project is being implemented by the Munich Climate Insurance Initiative (MCII) together with its partners, CCRIF SPC, the International Labour Organisation's (ILO's) Impact Insurance Facility, DHI, and Munich Re. The project was conceptualized to address climate change, adaptation, and vulnerability by promoting parametric insurance for individuals as a disaster risk management instrument in the Caribbean. In order to reach this population, CRAIC developed a microinsurance product called the Livelihood Protection Policy (LPP). The project is being implemented in five Caribbean countries: Belize, Grenada, Jamaica, Saint Lucia, and Trinidad and Tobago, with the intent to increase the number of countries participating in the project in future years.

The document captures 20 key lessons learned over Phases I and II of the CRAIC project. These lessons learned will be key in the implementation of Phase III and would allow the project team to build on the best practices from the previous phases as well as focus on taking corrective action in areas that were not as successful, but for which there is now a more in-depth understanding in this relatively new and innovative area of climate risk insurance. The publication can be assessed at: https://www.ccrif.org/publications/technical-paper/20-lessons-learned-craic-project

The consortium believes that the lessons learned through the implementation of the CRAIC project can be applicable to other small island and coastal states that have an interest in developing and implementing similar microinsurance schemes to support vulnerable populations and close the protection gap.

The 20 Lessons Learned from the CRAIC Project 2014 – 2020 ... Adapted from "*Climate Risk Insurance in the Caribbean: 20 lessons learned from the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project*"

- 1. Education on parametric insurance is needed among the target population
- 2. Basis risk must be understood by government, insurers, distribution channels, and the target population for parametric insurance to be accepted
- 3. Policyholders must understand the elements and benefits of the actual policy and be provided with guidance when purchasing the product
- 4. Insurers and implementers must clearly communicate the benefits and limitations of parametric insurance to all stakeholders
- 5. The parametric models that underpin policies must be continuously improved to enhance product performance
- 6. New products must be developed for different target groups
- 7. A segmented approach that involves product variety should be adopted
- 8. Aligning microinsurance schemes with national social protection policies and strategies must be part of social protection
- 9. Government can play a vital role in raising awareness of and educating stakeholders about parametric insurance
- 10. Use of multiple distribution channels should be considered for improving access to the products and receiving payouts
- 11. It is important for insurers to understand the target population: using customer-centric design to meet needs
- 12. Selling group policies are important to increase access to insurance and enhance sales
- 13. Local NGOs and CBOs have an important role to play in lowering the cost of insurance and enhancing awareness
- 14. Creating competition in the market is important: creating success without picking winners
- 15. It is important to incorporate the use of technology and digital solutions to facilitate sales and distribution of products and payouts
- 16. The importance of communication as a tool to build trust in insurance cannot be overstated
- 17. Local insurers need to align climate risk microinsurance to their overall business strategy
- 18. Integration of insurance within Integrated Climate Risk Management is important
- 19. Sustainability will require integrating microinsurance into country and regional institutions
- 20. Engagement with governments is necessary: embedding insurance into National Adaptation Plans (NAPs)

Spotlight on CCRIF Small Grants Programme...

building the resilience of local communities across the small island and coastal states of the Caribbean

CCRIF Supports Capacity Building of Farmers in Belize to Implement Best Practices in Climate Change Adaptation, Environmental Management and Food Security



CCRIF awarded a grant of US25,000 to Humana People to People Belize (HPPB) – a Belizean non-governmental organization to increase farmers' capacity to implement farming practices towards reducing the impacts of climate change. The project has empowered farmers to enhance their livelihoods and make their farms and communal gardens more resilient to the impacts of climate change. HPPB worked with farmers' clubs in nine communities in the Toledo district in southern Belize. The farmers' clubs act as cooperatives through which credit, market access for inputs and the sale of surplus production are facilitated.

Over 80 training sessions were held with more than 100 farmers on various agriculture-related topics such as conservation agriculture, poultry and pig production, and seed harvesting. The farmers also were exposed to business related training in geared towards improving farm performance and productivity as well as topics to enhance community wellbeing and food security such as growing and maintaining climateresilient backyard gardens. The majority of farmers (84%) were Mayans and training was conducted in four languages: English, Spanish, Ketchi Maya and Mopan Maya.



The project also provided the farmers' clubs with seedlings, plants, soil, and other tools to grow crops in greenhouses, open common areas and community backyard gardens to enable farmers to put their new learning into practice/action. Many farmers were able to supplement their income by producing valueadded products and developing partnerships with the larger agro-business sector. All groups of farmers were able to start various income-generating initiatives for themselves, such as sale of livestock, produce and various other items such as ice cream, processed chicken, and processed pepper. This was a key success factor of the project as the communities in which these farmers live have little to no incomegeneration or employment opportunities.

By engaging the farmers in climate-smart agricultural practices, the project empowered the farmers to be better prepared to withstand and address 'shocks', making them less vulnerable and building their resilience. For example, when the clubs were faced with torrential rains at the



beginning of 2019, the COVID-19 pandemic in 2020, and Tropical Cyclones Nana and Eta also in 2020, the communities were prepared and knew what to do to ensure their safety and that of their families and the farms.

The project also engaged the entire community by raising awareness about environmental issues and climate change – through the distribution of flyers, community clean-ups and hosting movie nights to showcase videos on climate-smart agriculture and disaster risk management.





"We are grateful for the activities that Humana is doing in our community like the clean-up because it helps the community to be more aware of the environment and helps us to fight against dengue fever and malaria." Blasio Ical, Village Chairperson, Blue Creek Village





"Thanks to the project, we have been able to open a little shop where we sell chickens that we raise ourselves and also other things that people in our community want. We make our own ice cream from natural fruits and sell here in Santa Teresa and we even sell to Corazon Village." Roberto Ack, Santa Teresa Farmers' Club

Spotlight on MOUs and Partnerships

... building the resilience of the small island and coastal states of the Caribbean to better respond to natural hazards and the impacts of a changing climate

CCRIF-UWI MOU





Main Purpose of the CCRIF-UWI MOU:

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.

CCRIF Provides Support to the UWI Climate Studies Group Mona to Upgrade Software Tools for Assessing and Addressing the Impacts of Climate Change

CCRIF has provided a grant of US\$32,000 to the UWI Climate Studies Group Mona (GSGM) under the CCRIF-UWI Memorandum of Understanding (MOU) to upgrade three software tools developed by the CSGM. These software tools have been designed to assess and address the impacts of climate change. The tools are:

- Simple Model for Advection of Storms and Hurricanes (SMASH)
- Agricultural Climate Change Evaluation for Production, Transformation and Resilience Building (ACCEPT) Agri portal
- Real Time Monitoring System (RealTMS) for Water Quality

The CSGM has indicated that these tools have been assessed to have significant potential to support evidence-based decision making within the disaster management, agriculture and water sectors, thereby leading to improved climate resilience.

In addition to upgrading the tools, the project also will support capacity building and use of the tools by regional stakeholders within government entities and academia towards enabling these stakeholders to make more informed decisions on suitable response actions to manage climate change threats and to reduce disaster risks.

The Software Tools	What they are
SMASH	The Simple Model for Advection of Storms and Hurricanes (SMASH) allows planners and decision makers the opportunity to examine differing scenarios of storm tracks, intensities and forward speed and the associated rain rates and wind speeds for a given location in a Caribbean island, and to make decisions accordingly.
ACCEPT	The Agricultural Climate Change Evaluation for Production, Transformation and Resilience Building (ACCEPT) Agri portal allows farmers, extension officers and other agriculture sector stakeholders to see predicted yields and biomass of different crop types under varying scenarios including extreme events (e.g. droughts and floods). The model can also identify drought-tolerant crops and varieties, which may prove useful for farmers in geographical locations perennially plagued by insufficient water.
REAM TMS	The Real-Time Monitoring System (RealTMS) Water Quality tool will allow for real-time monitoring of water quality variables such as Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), potential hydrogen (pH), temperature and conductivity. The tool will provide capabilities to evaluate water quality in relation to extreme weather events.

Update on CCRIF-UWI Course "Fundamentals of Disaster Risk Financing for Advancing Sustainable Development of Small Island Developing States (SIDS)"

The postgraduate course, "Fundamentals of Disaster Risk Financing for Advancing Sustainable Development of Small Island Developing States", kicked off in October 2020 with 30 participants from 11 countries in the Caribbean – with about 50 per cent of participants working with government entities in the areas of disaster risk management and climate change adaptation.



The first cohort of 30 students on the course are from 11 countries in the region

This 40- contact-hour course focuses in large measure on enhancing the understanding and use of the 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 first and main disaster risk financing facility, which provides parametric insurance. Focus also is placed on how parametric insurance and the models underpinning it work. The course also examines the range of other ex-ante and ex-post disaster risk financing instruments and how these work alongside and complement each other. The linkages between shock responsive social protection and disaster risk financing within the context of vulnerable populations also is explored.



Participants are being assessed by submitting written assignments at the end of each unit, an individual paper at the end of the course, a group project and a written examination via an online assessment modality which would be made up primarily of multiple-choice and short answer questions. The course ends in February 2021. Successful participants will be awarded a UWI Open Campus Certificate of Achievement with four Continuing Education Units or CEUs. This is an internationally recognized system of merit for persons pursuing continuing and professional education offerings.

Check both the CCRIF and UWI websites for updates on the next course offering.



Virtual Conferences and Workshops we Delivered Presentations at, and Participated in October to December 2020

During October to December 2020 CCRIF delivered presentations at 5 virtual conferences and workshops. These are described below.

Webinar "Financing and Planning for Disaster Risk Management (DRM) in the Caribbean Small Island Developing States (SIDS)" - hosted by ECLAC, November 2020

The United Nations Economic Commission for Latin America and the Caribbean (ECLAC) hosted a webinar on Financing and Planning for Disaster Risk Management (DRM) in Caribbean Small Island Developing States (SIDS). The webinar was designed to:

- Examine current and innovative financial mechanisms for DRM in the Caribbean
- Identify and highlight local and regional financial gaps and other resourcing requirements for DRM
- Promote increased knowledge and awareness of the value of integrating DRM financing into national development plans and strategies for resilience building
- Provide insight into the use and application of Geospatial tools for evidence-based data analysis and decision making in the financing of DRM
- Identify policies and linkages for financing the management of the COVID-19 pandemic under a DRM framework

Elizabeth Emanuel, Head of the CCRIF Technical Assistance Manager and Corporate Communications Manager Teams delivered the presentation, "CCRIF SPC: An Example of a Disaster Risk Financing Mechanism for the Caribbean and Central America", placing focus on the rationale for selecting parametric insurance as a basis for CCRIF policies; the concept of the sovereign liquidity gap; the parametric insurance products that CCRIF offers; CCRIF's involvement with microinsurance; and CCRIF's work and response within the context of the COVID-19 pandemic. Other organizations and governments whose representatives presented at the conference included The World Bank, Green Climate Fund and the Dominica Association of Industry & Commerce as well as the Governments of Antigua & Barbuda and The Bahamas who shared their country's approaches to financing DRM activities and building resilience.

The link to the webinar and presentations can be found at: https://www.cepal.org/en/events/financing-and-planning-disaster-risk-management-caribbean-small-islands-developing-states

Webinar "Exploring the Jab Planter as a Soil Conservation Tool" (and results of study funded through CCRIF SGP) hosted by Department of Food Production, UWI St. Augustine, November 30, 2020



Over 30 farmers, researchers and government officials participated in a webinar hosted by the Department of Food Production at The University of the West Indies, St. Augustine campus that examined the role of jab planters in conservation agriculture. Designed to make farmers' work easier, jab planters are manually operated mechanical tools used by farmers to sow seedlings while standing in a natural position. Using these planters generally reduces farmer effort and labour costs, while at the same time allowing the farmer to plant seedlings without disturbing protective vegetative field cover, which may reduce the susceptibility of farming areas to erosion. Jab planters also contribute to increased productivity in agriculture.

The webinar was the final activity in a project funded by CCRIF through a grant of US\$16,000 under its Small Grants Programme (SGP) to The UWI, which sought to examine the effectiveness of the jab planter for different soil types (in terms of level of clay content), field conditions (i.e. with and without tillage) and types of seedlings.

During the webinar, Prof. Wayne Ganpat, Dean of the Faculty of Food and Agriculture; Dr. Mark Wuddivira, project leader and Head of the Department; and Gina Sanguinetti Phillips from the CCRIF Technical Assistance Manager team delivered remarks. Keynote speaker, Senator Hon.



Avinash Singh, Minister in the Ministry of Agriculture, indicated that he was pleased to promote any tool such as the jab planter that "*has the capacity to make farmers' lives easier and enable them to work smarter*".

The University will be sharing the findings of this study with a wide range of stakeholders, not only in Trinidad and Tobago, but also throughout the region. The findings of this study could provide guidelines for the use of seedling transplanters in conservation agriculture in the Caribbean.

16th International Conference on Inclusive Insurance, hosted by Munich Re Foundation and the Microinsurance Network, November 2020



Some of the many speakers at the conference

CCRIF CEO, Mr. Isaac Anthony, speaker on two panels

CCRIF participated in the 16th International Conference on Inclusive Insurance, participating on panels and co-hosting one of the panels of the conference with MCII.

CCRIF CEO. Mr. Isaac Anthony participated as a speaker on the panel titled, *"Macro*, Meso. Micro: Practical Experiences at all Levels Parametric in Insurance". This session focused on parametric insurance and modelling as used by national governments and organizations in Latin America and the Caribbean.



Focus also was placed on how parametric insurance can help low-income populations manage climate and catastrophe risks they face. This session explored the nuances and lessons of parametric insurance and modelling, including partnerships and model applications, and showcased examples of how these solutions provide fast and reliable responses to catastrophic events, the potential for scaling up coverage, and providing increased protection for low-income populations. In addition to Mr. Anthony, other panelists were: Matthew Chamberlain, Principal and Consulting Actuary at Milliman, USA; Carlos Boelsterli, CEO, Micro insurance Catastrophe Risk Organisation (MiCRO); and, speaker and facilitator, Indira Gopalakrishna, Microinsurance Specialist, MicroInsurance Centre at Milliman (MIC@M), Singapore.

CCRIF and the Munich Climate Insurance Initiative (MCII) hosted a panel at the session titled "*How to reach scale and develop inclusive insurance markets: Leveraging sovereign insurance for building scale*".



This session focused on sharing various avenues and tools necessary for scaling up coverage and how to leverage the institutional frameworks in countries and build on existing modalities for microinsurance to reach the poor and vulnerable. The session reflected on the experiences of the CRAIC project. Whilst the sale of the Livelihood Protection Policy (LPP), developed under the CRAIC project, was to be led by the private sector and private sector insurance companies specifically, the roles of other sectors including the public sector, local government agencies as well as non-governmental organizations were explored.

In addition to CCRIF CEO, Isaac Anthony, other panelists were: Matthew Branford, Deputy Director, Financial Administration, Department of Finance, Government of Saint Lucia; Dean Romany, President, Guardian General Insurance Limited, Trinidad and Tobago; and, Dirk Kohler, Insurance Advisor, MCII, Germany.

A few statements made during the panel discussion by CCRIF CEO, Mr. Isaac Anthony on how to reach scale and develop inclusive insurance markets:



Our motivation for most of our new products comes from the expressed demand of our members – as many of you know, every 3 years we undertake a stakeholder assessment that helps to guide our strategic planning process for the 3 years going forward and it is usually from this process we begin to pull

out the demands of our members. Also through our own analysis we identify possible needs of members and areas where there are gaps in insurance coverage in the regions that we work in – electric utilities certainly is one, especially in transmission and distribution – bearing in mind that in almost all Caribbean countries, transmission and distribution consist of overhead

lines and poles that are significantly impacted by wind due to tropical cyclone events – such as storms and hurricanes. For us, expanding coverage to non-sovereigns is a bold but necessary step given the structure of the energy sector in the region – which includes both public and private sectors – and the role of the energy sector in the social and economic development of our countries and the quality of life of our people.



On new products, and the public utilities product brought to market by CCRIF in 2020

We are encouraged that Guardian has included the CRAIC project not as an addon but as part of its overall business strategy and views this collaboration as key and a new challenge that would afford them the opportunity to engage with new clients who can potentially purchase other products that they may have on offer.

By aligning microinsurance to its overall business strategy, Guardian Insurance has signaled its intent to invest time and resources in product development, regulatory approvals and product roll-out, and ultimately to have a major stake in the success of the LPP across the Caribbean.

What is key for us at CCRIF, is that Guardian operates in almost all of CCRIF's 19 Caribbean member countries – and we see this as a first step towards moving the CRAIC project out of a pilot phase, in which it has been for over 7 years, and to really scale up and make this innovative product available across the 19 Caribbean countries that CCRIF operates in. On welcoming Guardian as a partner in the CRAIC Project



Caribbean/Africa Regional Exchange Workshop on Climate and Disaster Risk Financing and Insurance, hosted by Caribbean Policy Development Centre and MCII, October 30, 2020

CCRIF participated in the Caribbean/Africa Regional Exchange Workshop on Climate and Disaster Risk Financing and Insurance hosted by the Caribbean Policy Development Centre and the Munich Climate Insurance Initiative. The aim of this virtual regional workshop was to provide an opportunity to share lessons and experiences and explore African and Caribbean perspectives on climate risk finance and insurance and lay the foundations for a multi-stakeholder platform on climate and disaster risk finance and insurance in Africa.

The workshop was part of the Multi-stakeholder Partnership project on Climate and Disaster Risk Financing and Insurance (CDRFI) being implemented in Africa and the Caribbean. The project is viewed as a key opportunity to promote reliable and rapid disaster responses to



offering products and services not readily available in traditional insurance markets

situations caused by climate

change. The project was developed in accordance with the InsuResilience Global Partnership, which seeks to strengthen the resilience of developing countries and protect the lives and livelihoods of the poorest and most vulnerable against the impacts of natural hazards. Launched in 2020, the project aims to establish, by the end of 2021, a multi-stakeholder partnership, by bringing together all relevant stakeholders (government, civil society, private sector, and universities / scientists) at national, regional and international levels, to:

- Increase expertise and exchanges on issues related to CDRFI in Africa and Caribbean
- Promote the development and implementation of gender-equitable, pro-poor, and human rights-based CDRFI approaches for climate risk financing and insurance
- Generate and promote best practice in the use of climate and disaster risk financing and insurance.

Elizabeth Emanuel, Head of the CCRIF Technical Assistance Manager and Corporate Communications Teams, delivered a presentation highlighting the work of CCRIF as a disaster risk financing instrument for Caribbean and Central American governments. Emphasis also was placed on the role of microinsurance in closing the protection gap as well as the COAST (Caribbean Ocean and Aquaculture Sustainability Facility) parametric insurance product for fisheries and how it works. In addition to CCRIF, organizations such as Africa Risk Capacity and MCII also delivered presentations as well as NGOs that are implementing the MAP project in Barbados, Madagascar, Malawi and Senegal.

Virtual Workshop on Leaving No One Behind in the Caribbean: building resilience through universal social protection, hosted by ECLAC, ILO, UN-Habitat and CCRIF, October 2020



The overarching objective of the workshop was to promote universal and comprehensive social protection systems in the Caribbean by strengthening the capacity of policymakers in the Caribbean to design and implement universal social



protection systems and programmes, as well as enhance the competency of technical staff of countries to measure inequality and identify the furthest behind as a necessary first step in reducing inequalities through social protection. The workshop contributed to advancing the promise of Agenda 2030 to "leave no one behind" and support the attainment of specific Sustainable Development Goals (SDGs).

Elizabeth Emanuel, Head of the CCRIF Technical Assistance Manager and Corporate Communications Manager Teams, represented the Facility and presented on *"Linking*" Insurance & Social Protection - Shock **Responsive Social Protection**". The presentation focused on the role that CCRIF was playing in the region in making available microinsurance products to vulnerable populations and emphasis was placed on the Climate Risk Adaptation in the Caribbean (CRAIC) Project and the Caribbean Ocean and Aquaculture Sustainability Facility (COAST). CCRIF also shared the publication "Linking Social Protection with Climate Resilience and Response", which is available for download at:



https://www.ccrif.org/en/publications/technical-paper/policy-brief-linking-social-protection-climate-resilience

Other organizations that presented at the workshop included: Organisation of Eastern Caribbean States (OECS), Planning Institute of Jamaica (PIOJ), ILO Office for the Caribbean, and Caribbean Disaster Emergency Management Agency (CDEMA) among others. Participants also benefitted from case studies on social protection strategies from Saint Lucia, Belize and Antigua & Barbuda.

CCRIF Learning Corner

Understanding CCRIF Country Risk Profiles



What are CCRIF Country Risk Profiles?

CCRIF prepares country risk profiles for each member country for all perils that are covered by the Facility: Tropical Cyclone (TC), Earthquake (EQ) and Excess Rainfall (XSR). The country risk profiles provide an outline of the hazard characteristics of the

peril and the risks for the country as well as economic loss information.

Why are risk profiles developed?

The profiles are aimed at providing decision makers with a clear picture of the key risks which the country faces in order to guide national catastrophe risk management and inform decision making for both risk reduction and risk transfer (via CCRIF coverage and other mechanisms which may be available).

The country risk profiles are the link between the CCRIF models and its parametric insurance policies. The risk profile for a country presents losses due to that peril for the country at different probabilities of occurrence (more precisely referred to as probabilities of exceedance), which is an established way of quantifying risk. Therefore, the risk profile acts as the basis for pricing of the corresponding CCRIF parametric insurance policy. The profiles provide the basis for CCRIF to discuss coverage options with each country individually and to underwrite country policies once coverage levels have been agreed. Furthermore, country risk profiles for prospective new CCRIF member countries are developed as part of the process to discuss possible CCRIF insurance coverage.

What is actually included in a country risk profile?

The Country Risk Profile for each peril (TS, EQ, XSR) includes the following:

- Overview of the country (e.g. location, basic economic information)
- Exposure distribution of assets at risk (buildings, infrastructure, crops)

and their characteristics

(e.g. construction type



and material and height classification), geographic location, use and replacement cost

- Hazard frequency, severity of the peril
- Vulnerability consequences of the hazard on the assets at risk
- Historical Losses (due to related hazard events)
- Risk potential losses in terms of loss exceedance curves based on calculations by the CCRIF model that underpins the associated policy (an example is provided above)

What is the source of the data presented in the country risk profiles?

Data from international, regional, local, open-source, and satellite-based sources are used by the CCRIF models and are used to determine the information presented in the country risk profiles. Hazard data are obtained from the US National Oceanic and Atmospheric Administration (NOAA) (for TC), United States Geologic Survey (USGS) (for EQ) and a satellite-based precipitation model and climaticа meteorological model developed by NOAA (for XSR). The exposure– or asset - data are from a range of



sources that includes national building and population census surveys and land use/land cover maps, open-source night-time lights maps and digital elevation maps, as well as satellite imagery. Economic loss data associated with hazard events are obtained from local, regional and international reports and databases from organizations such as NOAA, the Emergency Events Database (EM-DAT), CDEMA, ECLAC and major reinsurance companies such as Swiss Re and Munich Re.

When are country risk profiles updated?

The country risk profiles are based on CCRIF's loss models and are updated whenever the loss model for a given peril is updated. In keeping with best practices, and as part of its thrust to continuously improve the quality of products and services it provides to members, CCRIF makes improvements to its models from time to time based on new and emerging trends in the science of model development as well as the availability of new information and data to enhance the quality of the models and the products it provides.

The current risk profiles for TC and EQ are based on the SPHERA (System for Probabilistic Hazard Evaluation and Risk Assessment) model, developed for the 2019/20 policy year. The SPHERA model replaced the MPRES model, which was used from 2011 to 2018. The SPHERA model incorporates new information and data; it includes the most recent hazard events and employs the most up-to-date scientific findings and methodologies in hazard modelling and therefore is able to generate a higher precision in the evaluation of losses due to earthquake and tropical cyclone hazards.

With respect to the excess rainfall model, the XSR 2.1 model, first used in 2018, was upgraded to XSR 2.5 in 2019. Improvements and new features in the XSR 2.5 model include the consideration of soil saturation in addition to the pure rainfall in the loss calculation, as well as a multi-trigger CARE (covered area rainfall event) based on additional weather model configurations. These changes were made to better represent smaller and/or localized severe rainfall events in the model.

Where can I find the country risk profiles?

The risk profiles are proprietary documents that CCRIF provides to the government of each country. If the government gives permission to make these documents publicly available, CCRIF places the profiles on the CCRIF website. The following annexes for the country risk profiles are publicly available and provide information about the underlying models and the historical events database: https://www.ccrif.org/ccrifs-country-risk-profiles

EQ Annex 1: the SPHERA Model for earthquake EQ Annex 2: the SPHERA Model for earthquake - Historical events database TC Annex 1: the SPHERA Model for tropical cyclone TC Annex 2: the SPHERA Model for tropical cyclone - Historical events database XSR Annex 1: the XSR 2.5 Model for excess rainfall XSR Annex 2: the XSR 2.5 Model for rainfall - Historical events database

What can these country risk profiles be used for?

The development of the CCRIF catastrophe risk models is an important contribution to national and regional risk management institutions through its collection of a significant set of detailed databases on national catastrophe risk exposures in its member states. This is important specifically because prior to this initiative most member countries had for the most part never undertaken any major effort to collate this information which is critical in understanding the catastrophe risks faced at a national and regional level. These risk profiles facilitate increased knowledge of the extent of catastrophic risk facing CCRIF member countries and the risk modelling can help governments better adapt to known threats and mitigate against future threats.

In addition to their use to underpin CCRIF parametric insurance policies, the Country Risk Profiles prepared by CCRIF can be used by local, regional and international disaster risk managers and decision makers with responsibility for land use, investment and development planning for a number of purposes, for example:

- to identify first-order hazard-prone locations, highlighting which locations may require a more detailed and local analysis
- in the preparation of national disaster management plans and policies
- to review and update local building codes
- identify risk concentrations in particular geographic areas or lines of business
- in the preparation of development planning frameworks and spatial plans

Are there separate risk profiles for the fisheries and utilities sectors?

Yes. CCRIF prepares special country risk profiles for the fisheries sector to provide the information required for its COAST (Caribbean Oceans and Aquaculture Sustainability Facility) policies. These profiles present the hazard profile associated with tropical cyclones and also adverse weather (rainfall and wave height) and the impacts on the portion of the country's exposure that is related to the fisheries industry. Similarly, CCRIF prepares risk profiles for specific electric utility companies that reflect the impacts of tropical cyclone-induced wind and storm surge on electric utilities' transmission and distribution infrastructure.

