

Monthly E-News









February 2020/March 2020 - Issue #14

A Message to Our Members, Stakeholders, Colleagues and Friends

At this time, we know that our members, stakeholders, colleagues, friends and indeed the rest of the world are experiencing the increasing uncertainty associated with COVID-19. The global outbreak and spread of COVID-19 is affecting each and every one of us. Our thoughts remain with our member countries, their communities and people and our prayers and hearts go out to the families directly impacted by the virus. We wish to indicate that our team at CCRIF continues to work as, like you, we know that we cannot lose sight of the upcoming hurricane season and the other natural hazard risks that countries in the Caribbean and Central America are exposed to. With the uncertainties surrounding us, we nonetheless take this opportunity to assure our members that our top priority at this time is to ensure that all insurance policies of our members are renewed in time for June 1.

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 are all back to normalcy. We will continue to hold you in our prayers knowing that sunnier days are ahead. Keep safe!

Isaac Anthony Chief Executive Officer, CCRIF SPC



CCRIF Leads Mission to Trinidad and Tobago – February 2020

Strategic Objective #5 as contained in CCRIF's Strategic Plan 2018 – 2021 is "Member Relations and Engagement" and calls for CCRIF to undertake activities aimed specifically at strengthening relations with its members towards enriching their experiences with CCRIF, enhancing levels of understanding of disaster risk financing and CCRIF's parametric insurance products, understanding our members' needs towards enabling us to meet and exceed their expectations, cultivate higher levels of trust, promote member engagement and member retention, loyalty and satisfaction and address any issues and challenges or grievances that member governments may have.

CCRIF CEO, Isaac Anthony led a mission to Trinidad and Tobago over the period February 4 – 6, 2020. During the 3-day period, members of the CCRIF team:

- Participated in 10 meetings, capacity building sessions and workshops including a debriefing meeting with officials of the Ministry of Finance
- Engaged over 55 stakeholders during the three days 4 public sector entities, namely the Trinidad and Tobago Meteorology Service (TTMS); Ministry of Agriculture, Land and Fisheries; Office of Disaster Preparedness and Management (ODPM) and the Ministry of Finance; 3 departments at the University of the West Indies, namely the Seismic Research Centre (SRC), the Departments of Agriculture & Food Production, and Geography; two development partners with which CCRIF has MOUs Association of Caribbean States and UN-ECLAC and one private sector company, Guardian General Insurance

No of stakeholders engaged - approximatley 55

- Public Sector Entities Min. of Finance, Min. of Agriculture, TTMS, ODPM
- Development Partners Association of Caribbean States, UN-ECLAC, Caribean Meteorological Organizaton
- Private Sector Guardian Insurance
- Academia UWI: Seismic Research Centre, Dept. of Geography, Dept. of Agriculture & Food Production

No of meetings/workshops - 10

Highlights of a Few Meetings - Trinidad and Tobago Mission

Meeting with the Ministry of Finance



CCRIF's mission to Trinidad and Tobago was organized in collaboration with the Ministry of Finance. Ministries of finance are CCRIF's main stakeholders in all of its member countries. This is because the finance ministries are responsible for government's purchase and participation of certain products and services such as insurance. Disaster risk financing – part of the thrust to reduce budget volatility and secure debt and fiscal sustainability – also is one of the main objectives of ministries of finance. The meeting with Trinidad and Tobago's Ministry of Finance allowed CCRIF to present updates on the Facility, including products in development, as well as information regarding policy renewals for the 2020/21 policy year. CCRIF also provided a debriefing to the Ministry on the meetings during the mission (as detailed above) and the proposed next steps of each meeting. Trinidad kicked off CCRIF's Policy Renewal Roadshow with its policy renewal meeting held on March 10th, via an online platform due primarily to COVID-19.

Trinidad Kicks Off CCRIF's Annual Policy Renewal Road Show for Policy Year 2020/21

The Government of Trinidad and Tobago is CCRIF's first member government to begin the policy renewal process for the upcoming policy year which starts June 1. Each year, CCRIF management and team engage all member countries from March to the end of April in its policy renewal roadshow. The roadshow involves meeting all member governments to discuss their parametric insurance cover with CCRIF as well as policy pricing, including any incentives being provided by CCRIF. These meetings are outside of other stakeholder engagements and activities held with members throughout the year. We see this year as particularly critical given that our members are not only faced with the challenges posed by potential natural hazards including the upcoming Atlantic Hurricane Season but also are battling COVID-19 and the potential impacts to their economies.

Meeting with the Ministry of Agriculture, Land and Fisheries



The CCRIF Team met with Permanent Secretary, Ms. Susan Shurland and members of her technical team from agriculture as well as the fisheries division of the Ministry. CCRIF delivered a fulsome presentation on the Facility, its models and products and discussed two key products COAST (Caribbean Ocean and Aquaculture Sustainability Facility) for the fisheries sector and the Livelihood Protection Policy (LPP) offered under the Climate Risk and Adaptation in the Caribbean project, both of which target access to insurance by vulnerable groups. CCRIF also introduced the team to the work being done by the Facility on the development of drought and agriculture models.

Meeting and Capacity Building Session with the Trinidad and Tobago Meteorological Service



CCRIF met with the technical team at the Met Service, including its Director, Mr. Ezekiel Sampson as well as key officers such as climatologist Mr. Kenneth Kerr. This meeting allowed CCRIF to share information on the full details of the tropical cyclone and excess rainfall models used by CCRIF. CCRIF introduced new models in 2019 – SPHERA for tropical cyclones and earthquakes and XSR 2.5 for excess rainfall - an update of XSR 2.1. The team also had discussions on the drought model currently being developed. Both entities also discussed new and emerging projects on the horizon.

Meeting with the UWI Seismic Research Centre



Similar to the meeting held with the Met Service, CCRIF also met with the technical team of the UWI Seismic Research Centre (SRC) including its new director, Dr. Erouscilla Joseph to share the full technical details of the earthquake model. Both the SRC and Met Service support the Government of Trinidad and Tobago in making its decisions as it relates to the purchase of its parametric insurance policies with CCRIF.

Courtesy Call on UN-ECLAC



The CCRIF Team met with the Head of UN-ECLAC, Ms. Diane Quarless and members of her technical team in the Environment and Disaster Risk Reduction Division, including Officer-in-Charge, Ms. Artie Dubrie. The discussion centered around the memorandum of understanding (MOU) between the two entities and the work plans underpinning the MOU. Special mention was made of the impact of the training of country officials in the DaLA (Damage and Loss Assessment) methodology which was supported by CCRIF through the 2018/19 work plan. In fact, The Bahamas was one of the countries in which

officials were trained in the DaLA methodology in 2018 and as such, officials in that country were able to support UN-ECLAC in undertaking the DALAs following Hurricane Dorian. Both entities also discussed their new and emerging activities and areas of future partnership.

CCRIF Team Delivers 6 Capacity Building and Training Sessions in Disaster Risk Financing and Parametric Insurance – in February and March 2020



Over the period February to March 2020, CCRIF delivered training to 6 entities in disaster risk financing, parametric insurance and CCRIF products and models to member governments and a range of stakeholders. Highlights of these sessions are presented below. Approximately 170 persons were trained.



#1 - Government of Jamaica – February 19 – 21 2020

CCRIF delivered its 3-day flagship training programme "Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and

Economic Policy" to technical officials in the Government of Jamaica over the period February 19 - 21, 2020. "Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and Economic Policy" is delivered by CCRIF to its member governments, specifically to officials from the ministries of finance, economy, planning, disaster risk management, environment and other related agencies such as meteorological services, local government and social development among others. Launched in 2016, the course is a first of its kind in the region and is designed to build capacity of key individuals to better understand the important role that disaster risk financing plays in advancing debt and fiscal sustainability of countries as well as overall development prospects; and the construct of CCRIF's parametric insurance policies and underlying models and country risk profiles. The course explores the range of products CCRIF provides and how parametric insurance works. The course is accompanied by a training manual and other related materials.



Participants were exposed to a range of topics and in-depth information on:

• Ex-ante and ex-post disaster risk financing and associated instruments and the

- rationale for countries to have in place disaster risk financing policies and strategies to complement disaster risk management policies
- The differences between parametric and indemnity insurance within the context of risk transfer
- CCRIF's products and services and the elements of CCRIF policies
- CCRIF's parametric models that underpin its policies and how payouts are triggered for a given policy
- The new SPHERA model that underpins CCRIF's tropical cyclone and earthquake policies and the upgraded XSR 2.5 model for excess rainfall policies
- In-depth analysis of the country's policies with CCRIF
- How country risk profiles are used for CCRIF policies and how the data could be employed in other areas of national development such as spatial planning or development planning
- Introduction to the new Web Monitoring Application (WeMAp) Real-Time Forecasting System and TC, EQ and XSR Monitoring Tools
- How to use the data produced by WeMAP to support emergency and disaster managers in their planning



#2 - Association of Caribbean States – February 4, 2020

CCRIF delivered a 1-day workshop to the ACS in February 2020. This one-day workshop was specially adapted from the CCRIF course "Understanding Disaster Risk Financing, CCRIF Parametric Insurance Policies and the Relationship with Fiscal and Economic Policy".

The delivery of the workshop was part of the agreement under the MOU between CCRIF and the ACS to enhance the understating of each other's work. Participants of the workshop included technical officers from the 3 directorates that make up the ACS Secretariat - Disaster Risk Reduction, Environment and the Caribbean Sea; Trade and Sustainable Development; and Cooperation and Resource Mobilization. Two other development partners also participated – Caribbean Meteorological Organization and UN-ECLAC.



#3 – Capacity Building Session with Office of Disaster Preparedness and Management – February 6, 2020

CCRIF engaged the head and technical officers of the ODPM in a capacity building session around CCRIF and parametric insurance and the linkages between disaster risk financing and disaster risk management.



#4 – Capacity Building Session with UWI St. Augustine's Department of Food Production (Faculty of Agriculture) and Department of Geography – February 5, 2020

CCRIF delivered a presentation on CCRIF, its parametric insurance products and models to lecturers, staff and students in the Department of Food Production and Agriculture and the Department of Geography. Discussions also centred around the CCRIF Technical Assistance Programme and the benefits for students – scholarships and internships – as well as the benefits to the departments – hosting CCRIF interns as well as benefiting from small grants through the CCRIF Small Grants Programme. Some of the staff members from the Geography Department were former CCRIF interns. Both departments are currently implementing projects with financial support from the CCRIF Small Grants Programme.



#5 – Training and sensitization on WeMAp at Understanding Risk 2020, Centroamérica – February 13 & 14, 2020



At Understanding Risk 2020 Centroamérica, CCRIF sponsored a mini lab to showcase, demonstrate and build capacity to use WeMAp. While the main focus of the session was on WeMAP, participants also were introduced to CCRIF and provided with information on the Facility's parametric insurance products and the models underpinning them. WeMAp is CCRIF's newest Web Monitoring Application (WeMAp), which is made available to member government and stakeholders. In 2019, CCRIF launched this web-

based platform through which its members can monitor earthquakes as well as the development of potentially damaging heavy rainfall and tropical cyclones, analyze their intensity and assess their impact, as well as check whether an active insurance policy with CCRIF is likely to be triggered. The web address of the platform is: https://wemap.ccrif.org.

#6 – Capacity Building Session at the Cap-Net UNDP / Caribbean WaterNet Training Workshop on Hydro-Climatic Disasters, The Bahamas, February 2020



Gina Sanguinetti Phillips of the **CCRIF** Technical Assistance Team delivered a sensitization session at the Cap-Net **UNDP** and Caribbean WaterNet training workshop on Hydro-Climatic Disasters held February 24 -CCRIF's 26. session delivered via an online platform, focused on disaster risk financing and introduced CCRIF's parametric insurance products, highlighting those of greatest relevance to the water sector

Is Risk Mitigation Enough?



- The short answer is no. While disaster mitigation is critical to this disaster preparedness equation, we must add risk transfer and risk financing as well as the potential psychological impact of our people. In short, our disaster preparedness equation should read:
- Disaster risk mitigation +
 ecosystem management + risk
 transfer and risk financing +
 social protection strategies
 (including psychological impact
 of future disasters on our
 populations) =

Disaster Preparedness

– the current products for tropical cyclones, excess rainfall and the fisheries sector and new products being developed for drought and agriculture. This discussion of disaster risk financing added a new dimension to the workshop and enhanced understanding among participants about the importance of focusing on comprehensive disaster risk management and addressing all the various dimensions – risk identification and mitigation, disaster risk financing, social protection etc.

The workshop brought together over 30 participants from sectors including agriculture, water resources, education, environment, health and planning to discuss issues related to integrated water resource management, drought risk management, climate change impacts on the water sector and ways to increase resilience.

CCRIF Management and Team Engage in Annual Planning Retreat

At the end of January, the **CCRIF** Management Team engaged in its annual planning retreat, the focus of which was to assess the previous year's performance on based the Facility's monitoring and evaluation framework, and plan for the year ahead within the context of the Facility's 3-year Strategic Plan. As customary, focus was placed on planning for the period of renewals. products, new technical assistance



members especially those that may still be recovering from the impacts of natural disasters, and stakeholder engagement. The team also engaged in discussions on new and emerging issues and challenges that are expected to face our members - including economic, social and environmental challenges and the potential implications as well as the possible role that CCRIF could play in supporting our members. These discussions and decisions taken are all geared towards advancing resilience among our 22 member governments.

Working Remotely – Tips from Our 13 Years of Experience as a Virtual Company



COVID-19 will affect us all in many ways. Given the current situation globally, where many government organizations and firms are allowing their staff to telecommute – that is undertaking our work from home, or working remotely, making use of the internet, email, and the telephone – we think that it is prudent to share with you some tips on how to efficiently and effectively work remotely or in that virtual space.

As many of you are aware, when CCRIF was established 13 years ago in 2007, it was established as a virtual company – without a physical office – and we continue as such today. What does this

look like? Essentially our board, management and team are scattered across the globe – here in the Caribbean in St. Kitts & Nevis, The Cayman Islands, Saint Lucia, Trinidad & Barbados. Tobago, Bermuda and Jamaica; in Mexico; in Europe countries such as Italy and Spain; and in the UK and the USA. So we see as an organization we also have to cope with different time zones. As a virtual company, we are also able to employ



the best expertise that the world has to offer and apply that to providing first class service and innovative products and services to our member governments as they advance their sustainable development agendas.

But practically how does it work? Here are 10 tips from our team on working virtually:

- 1. First things first know that working remotely is a real way of working you are not expected to work less or work when you like. Stick to a working day schedule bearing in mind that the organization still needs to be visible to its clients that are not working remotely. You will be amazed at how much more you can accomplish when you remove commute times.
- 2. Organize regular meetings with the team to so that everyone is kept up to date on what is happening and the areas that team members are working on in other words "keep everyone in the loop". We call our regular team meeting an Ops Meeting.
- 3. Working in different time zones when scheduling meetings, requesting information or establishing deadlines, keep in mind what is reasonable for persons in other parts of the world. People often are willing to work outside regular office hours but do not expect that to be routine if it can be avoided. On the other hand, persons should be flexible and willing to work in the early morning or late evening when needed.
- 4. Hold meetings as you would if you are face to face we use the GoToMeeting platform and often have several meetings a day it is funny as those of us who have worked elsewhere know how distracted a face-to-face meeting can become and how easy it is to go off-track this is actually very difficult on an online meeting platform. There are many other platforms you can explore Zoom, Webex, Skype for Business etc. and many of these are free to download. Online platforms can be used for one-on-one discussions with a colleague half-way across the world; to make a presentation to a conference with hundreds of participants; to have a training session; or to have an active working meeting with everyone sharing their views, questions and ideas.
- 5. It is important that everyone knows the areas of work or deliverables that they are accountable for and the timing of the deliverables this results in better time management and contributes to high levels of self-discipline.
- 6. Have in place protocols for communication. For example, here are some specific tips for email: Read and re-read your email message before pressing the "Send" button. Ask the following questions: Is the language clear? Is it clear what you asking the recipient to do when they receive the email? Is the message going to the right people? Is the recipient address correct? Is the email being cc'ed to the right people in the recipient organization? in other organizations? in your own

- organization? Should it be bcc'ed to any other persons who need to be informed?
- 7. Ensure that you have modern and good IT systems for sharing files, storing data and also for business continuity we have in place our own electronic document management system which is an online tool
- 8. Encourage team members to engage throughout the day and we do so via email, WhatsApp, Skype and Google Chat and managers are encouraged to stay in contact with staff via these platforms
- 9. Ensure that your computer systems have the latest software and security updates and that you have a reliable internet/broadband connection and Wifi
- 10. And of course, get out of your pajamas! Whilst you may not be required to wear a suit, be professional it contributes more to your productivity; take care of yourself have breaks for coffee and lunch, listen to background music if you can work with it, and take a moment during the day to have physical contact make a call to someone, watch you son/daughter play a football match etc.

A special tip from us at CCRIF on working during the COVID-19 crisis...

Keep in mind that even though people may be "at work" and working remotely, everyone is under additional stress at this time as they are concerned about their family and friends near and far, about their livelihoods and the wellbeing of their communities and their nation. When communicating and making requests of colleagues, be flexible: understand that usual response timelines and work deadlines may not be strictly adhered to.

Brief on the Conferences and Meetings that the Facility Participated in February – March 2020

Understanding Risk 2020, Centroamérica





CCRIF participated in the Understanding Risk Centroamérica Conference held February 12 - 14, 2020 in Costa Rica. At the conference, the CCRIF team was involved in 3 key activities:

- Participated in the Ignite Session called "Turbo" which allowed us to "advertise and market" the technical session that we were hosting on disaster risk financing
- Hosted a technical session and panel discussion on Disaster Risk Financing, Parametric Insurance and Sustainable Development
- Sponsored a Lab that allowed us to showcase and demonstrate to stakeholders the WeMAp tool.
 Persons from Central America that did not already have access to WeMAp were encouraged to sign up. Access is free to CCRIF member governments and academia as well as civil society organizations.



The technical session "Disaster Risk Financing, Parametric Insurance and Sustainable Development", was led by Mr. German Rodriguez who started the session with a TED Talk that focused on the importance of good governance of critical fiscal resilience risks. disaster risk (DR) financing strategies as well as presentation of a few good practices. Following this TED Talk, he assumed the role of moderator for the session.



El COSTO DE LOS DESASTRES NATURALES

The panel consisted of the following speakers:

Michael Spranger

Chief Risk Officer, Management **CCRIF SPC**

- Miguel Navarro-Martin - Manager, Financial Products and Client Solutions, the World Bank
- Martín Osvaldo Portillo Andino - Executive Secretary, Council of

(COSEFIN)



- Claudia Herrera Executive Secretary, the Coordination Center for the Prevention of Disasters in Central America (CEPREDENAC)
- Francisco Alvarez Director, Directorate of Investments, Concessions and Risk (DICRE), Panama

The main focus of the panel was to share lessons learned in the areas of disaster risk financing and fiscal resilience in countries in the Central American region and the importance of risk financing tools such as parametric insurance cover offered by CCRIF and how these instruments fit into a country's overall financial protection strategy. Each panelist shared specific areas of information as follows:

Michael Spranger, CCRIF SPC

Provided insights on how CCRIF parametric insurance products work and how this type of insurance fits into a country's overall financial protection strategy

Claudia Herrera, CEPREDENAC

Shared her views on the linkages between disaster resilience activities and disaster risk financing as well as the information on how she sees CCRIF and CEPREDENAC working together as it relates to the two entities signing an MOU later in the year

Martín Osvaldo Portillo Andino, COSEFIN

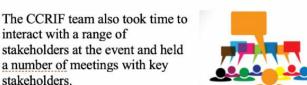
Spoke about the MOU that CCRIF and COSEFIN signed in 2015 which allows Central American countries to participate in CCRIF and the thinking behind this initiative as well as his thoughts on how those countries from Central America that are members of CCRIF are benefiting from this fiscal resilience initiative

Miguel Navarro-Martin, The World Bank

Shared a range of best practices and lessons learned with respect to contingent financing, green bonds and insurance for disaster risk management instruments, with emphasis on the applicability of these to Central American countries and in the context of country-level disaster risk financing strategies

Francisco Alvarez, DICRE, Panama

Shared the work that the Government of Panama is undertaking in the area of innovative fiscal resilience frameworks such as Panama's Strategic Framework for Financial Management of Disaster Risk





L-R: CCRIF CEO, Isaac Anthony; Seynabou Sakho, World Bank Country Director for Central America; Michael Spranger, CCRIF CRMO



CCRIF CEO, Isaac Anthony, with the panelists from the CCRIF Technical Session



CCRIF Management and Team with our colleagues from the World Bank

EIB Roadshow on Climate Finance in the Caribbean, Jamaica, February 2020





Gina Sanguinetti Phillips of the CCRIF Technical Assistance Team participated in and delivered a presentation at the symposium, *Climate Finance: Challenges and Opportunities for the Caribbean Financial Sector*, hosted by the European Investment Bank and Frankfurt School of Finance and Management on February 12 & 13 2020 in Kingston, Jamaica. This was the first event in the EIB's *Roadshow on Climate Finance in the Caribbean*, which is designed to foster knowledge transfer and experience sharing around trends and innovation in climate finance and encourage collaboration among regional stakeholders, experts and the EIB.

Mrs. Phillips delivered the presentation, "Disaster Risk Management: a Proactive Financial Sector – The Case of CCRIF SPC" on Day 1, which had the theme, *Demystifying Climate Change for Financial Institutions*. She focused on the impacts of natural hazards to Caribbean countries and the role of

CCRIF's parametric insurance products in national disaster risk financing strategies. She highlighted CCRIF's sovereign products for tropical cyclones, excess rainfall and earthquakes as well as the new COAST policy for the fisheries sector and discussed the Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project, which made the microinsurance product, the Livelihood Protection Policy available to individuals in select Caribbean countries.



There was significant interest from the finance institutions in offering microinsurance products to individuals and MSMEs. Overall, the forum resulted in increased understanding of the impacts of climate change on Caribbean countries and their financial institutions as well as potential opportunities for these institutions to help clients address climate change impacts through green financing tools and microinsurance, thus closing the protection gap in the Region. Over 60 persons participated in the 2-day conference, including representatives from ministries of finance and other public and private finance, insurance and microfinance institutions as well as regional development partners such as the Caribbean Development Bank. Jamaica's Minister of Finance and the Public Service, Hon. Nigel Clarke provided Opening Remarks on behalf of the Government.











CCRIF Scholarship Programme	• 1 Extra- Regional Scholarship	Value US\$40,000 Students must have gained admission to a university in the United Kingdom, United States or Canada for study in areas related to DRM, Climate Change, Environment, Engineering, Actual Science etc.
Minimum of 8 Postgraduate Scholarships per year	• 6 Caribbean Scholarships	Value US\$11,000 each Students must have gained admission to: University of the West Indies; University of Technology, Jamaica; Northern Caribbean University (Jamaica); University of Guyana; or University of Suriname in areas similar to the extra-regional scholarship
	Special Scholarship/s	Value US\$11,000 For students enrolled in the UWI-CCRIF course "Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and Economic Policy"
CCRIF-UWI Scholarship Programme 4 Undergraduate Scholarships per year	• 4 Scholarships	 Value US\$4,000 per year for 2 years (2nd and final year) Students must apply at the end of their 1st year Students must be registered at one of the UWI campuses and pursuing select degrees related to DRM, civil engineering, geography, environmental management etc.
CCRIF Internship Programme	• Up to 20 internships available per year	 Must have completed 1st degree to be considered Paid internships of up to US\$3,700 for a two-month period Opportunity to work in an area related to DRM in a national or regional organization and enhance knowledge and experience Opportunity for travel

Do not miss out on these amazing opportunities for you, the next cadre of transformational leaders!



Visit the CCRIF website at https://www.ccrif.org for additional information and to complete your application by June 15, 2020

- ➤ Since the CCRIF scholarship programmes were launched in 2010, CCRIF has awarded 77 scholarships to Caribbean nationals totalling US\$1.13 million to complete undergraduate or postgraduate programmes
- ➤ Since the CCRIF internship programme was launched in 2015, CCRIF has awarded internships to 103 Caribbean nationals with an investment of US\$320,000



Spotlight on CCRIF Small Grants Programme... building the resilience of the

small island and coastal states of the Caribbean

Examining the Impact of Quarries on Flooding and

Water Transmission under Climate Change – a

project being implemented by the Department of Geography at
the University of the West Indies St. Augustine, Trinidad

CCRIF provided a grant of US\$15,836 to the Department of Geography at the University of the West Indies St. Augustine campus in Trinidad for a project to examine the impact of hillside quarries on the relationship between rainfall and runoff in feeding streams within watersheds. The project is being conducted in the Acono watershed and the adjacent Don Juan River sub-basin, in which a limestone quarry is located and which drains into the larger Maracas watershed. The project compares the rainfall-runoff

response between the naturally forested Acono River watershed and the "quarried" Don Juan watershed.

The rainfall-runoff response is an important determinant of water availability and stream flow in catchment areas as it describes the sources of water that contribute to discharge into streams during the wet and dry seasons. This research can provide greater insight into climate change impacts on spatial patterns of seasonal water storage and flow throughout watersheds.

In the short term, the project findings will serve to improve the ability to forecast and respond to floods under heavy rainfall events. In the medium to longer term, the use of the data by national agencies can contribute towards a reduction of existing and future vulnerabilities of the local communities to flooding. Additionally, the project findings can be used to strengthen guidelines for local and regional environmental management policies regarding hillside quarries.

Led by Head of the Department, Dr. Kegan Farrick, project implementers have been gathering data on rainfall volume, stream depth and water quality, and soil water content to determine the impact of the quarry on these parameters. In February 2020, CCRIF's Gina Sanguinetti Phillips visited the study area, guided by Masters student Nicola Mathura who is working on the project. They visited some of the data collection sites and met with community members.

Mr. Michael Parris, President of the Maracas Valley Action Committee, a CBO that is committed to emphasizing community responsibility and environmental protection, is an important part of the project. Mr. Parris and other community members such as Mr. Kelvin Nakhid have assisted Nicola in reaching out to farmers and other residents within the Acono community to secure locations for equipment installation. Community members are involved as "citizen scientists", assisting with recording data for the project and monitoring stream water levels to inform their own activities, which is resulting in an increased commitment to environmental protection. The project is expected to be complete in October 2020.







Nicola Mathura at the site of one of 7 rain gauges



Nicola Mathura and Gina Sanguinetti Phillips at a water level measurement station in the "quarried stream"



Michael Parris, President of the Maracas Valley Action Committee



Dr. Kegan Farrick, Head of the Geography Department

This grant was provided under the CCRIF Small Grants Programme. Under this programme CCRIF provides grants of up to US\$25,000 to NGOs, CBOs and academic institutions to implement community-focused disaster risk reduction projects.

Project proposals are accepted throughout the year. Visit: https://www.ccrif.org/content/programmes/small-grants-programme

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