



**CCRIF** SPC

The Caribbean Catastrophe Risk Insurance Facility

Annual  
**Report**  
2018-19



# CCRIF SPC

The Caribbean Catastrophe Risk Insurance Facility



## Annual Report 2018-19



CCRIF SPC ANNUAL REPORT > 2018-19

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# CCRIIF SPC

FORMED 2007

The world's first multi-country risk pool  
based on parametric insurance



Members

19 CARIBBEAN  
3 CENTRAL AMERICAN

41 PAYOUTS  
Totalling



US\$ 152 MILLION

to 13 member governments

PRODUCTS



Parametric Catastrophe  
Insurance for:

- ▶ TROPICAL CYCLONES
- ▶ EARTHQUAKES
- ▶ EXCESS RAINFALL
- ▶ FISHERIES



# Who we are

In 2007, the Caribbean Catastrophe Risk Insurance Facility was formed as the first multi-country risk pool in the world, and was the first insurance instrument to successfully develop parametric policies backed by both traditional and capital markets. In 2014, the Facility was restructured into a segregated portfolio company (SPC) to facilitate offering new products and expansion into new geographic areas and is now named CCRIF SPC. It is owned, operated and registered in the Caribbean.

CCRIF SPC limits the financial impact of natural hazard events to Caribbean and Central American governments by quickly providing short-term liquidity when a policy is triggered. CCRIF offers parametric insurance policies for tropical cyclones, earthquakes, excess rainfall and the fisheries sector, giving member governments the unique opportunity to purchase disaster risk insurance with lowest-possible pricing.

CCRIF was developed under the technical leadership of the World Bank and with a grant from the Government of Japan. It was initially capitalized through contributions to a Multi-Donor Trust Fund (MDTF) by the Government of Canada, the European Union, the World Bank, the governments of the UK and France, the Caribbean Development Bank and the governments of Ireland and Bermuda, as well as through membership fees paid by participating governments. In 2014, a second MDTF was established by the World Bank to support the development of CCRIF SPC's new products for current and potential members, and facilitate the entry for Central American countries and additional Caribbean countries. The MDTF currently channels funds from various donors, including: Canada, through Global Affairs Canada; the United States, through the Department of the Treasury; the European Union, through the European Commission; and Germany, through the Federal Ministry for Economic Cooperation and Development and KfW. In 2017, the Caribbean Development Bank, with resources provided by Mexico, approved a grant to CCRIF SPC to provide enhanced insurance coverage to the Bank's Borrowing Member Countries that insure through CCRIF and in 2018, the Government of Ireland also provided support to CCRIF.

## **CCRIF currently has 22 members:**

**19 Caribbean governments** – Anguilla, Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Grenada, Haiti, Jamaica, Montserrat, St. Kitts & Nevis, Saint Lucia, Sint Maarten, St. Vincent & the Grenadines, Trinidad & Tobago, Turks & Caicos Islands

**3 Central American governments** – Guatemala, Nicaragua, Panama





# *Our* VISION

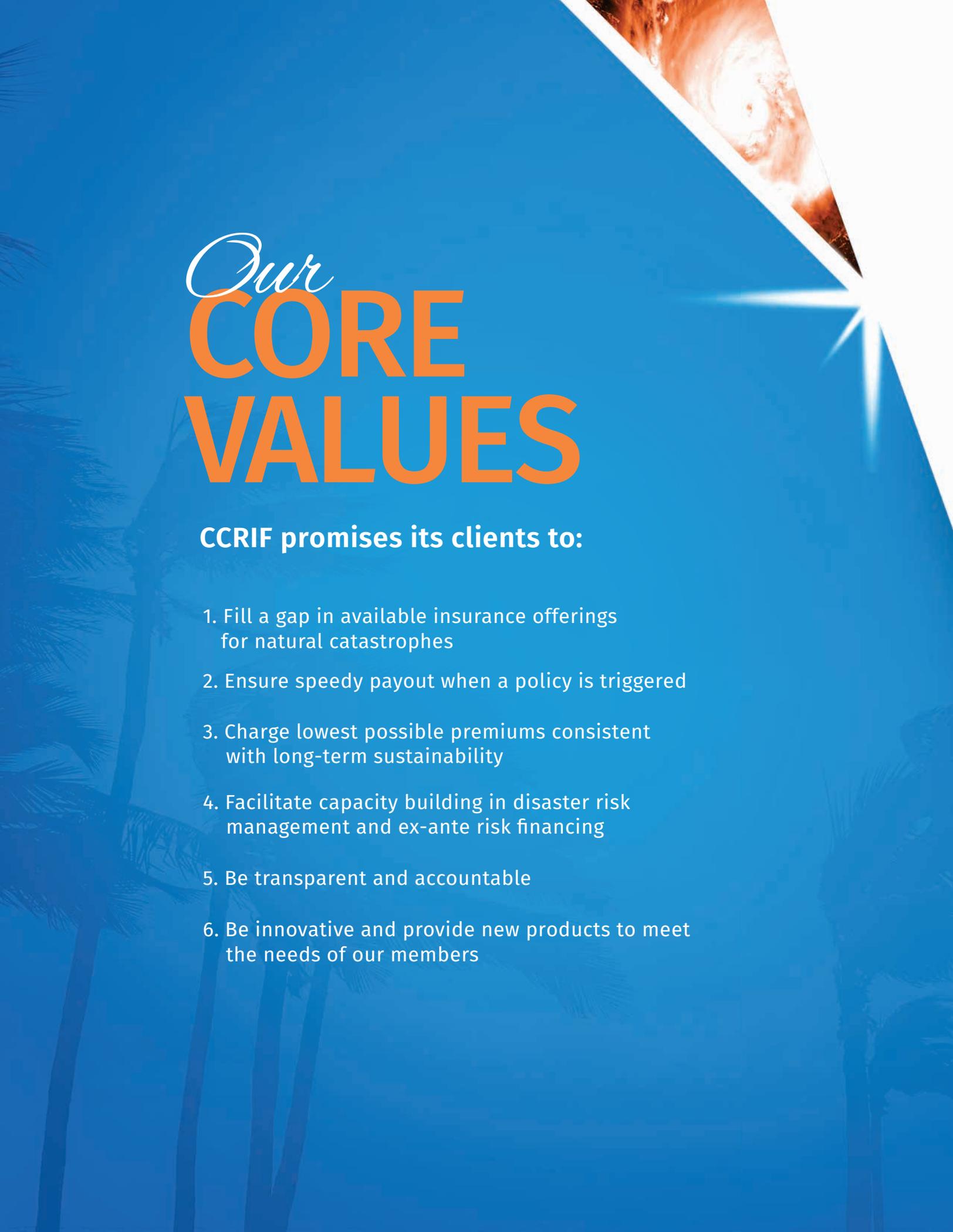
A Caribbean region and beyond with optimized disaster risk management and climate change adaptation practices supporting long-term sustainable development.

# *Our* MISSION

Our mission is to assist member governments and their communities in understanding and reducing the socioeconomic and environmental impacts of natural catastrophes.

We do this by being a global exemplar in providing immediate liquidity through a range of affordable insurance products, developing innovative and dynamic tools and services, engaging in effective partnerships and operating in a way that is financially sustainable and responsive to the needs of the members.





# *Our* **CORE VALUES**

## **CCRIF promises its clients to:**

1. Fill a gap in available insurance offerings for natural catastrophes
2. Ensure speedy payout when a policy is triggered
3. Charge lowest possible premiums consistent with long-term sustainability
4. Facilitate capacity building in disaster risk management and ex-ante risk financing
5. Be transparent and accountable
6. Be innovative and provide new products to meet the needs of our members

# STRATEGIC OBJECTIVES

2018-2021

**S01**

**INNOVATIVE AND RESPONSIVE  
PARAMETRIC PRODUCTS**

To provide products, services and tools responsive to the needs of members

**S02**

**RESILIENCE**

To enhance capacity for disaster risk management and climate change adaptation

**S03**

**FINANCIAL  
SUSTAINABILITY**

To sustain financial solvency and integrity

**S04**

**CORPORATE  
GOVERNANCE**

To sustain corporate integrity

**S05**

**MEMBER RELATIONS  
AND ENGAGEMENT**

To deepen our relationships with our member governments and to strengthen engagement with members

**S06**

**SCALING UP**

To increase member coverage, expand membership and develop new products and services

**S07**

**STRATEGIC  
PARTNERSHIPS**

To expand and deepen strategic partnerships

# PAYOUTS

JUNE 2007 - OCTOBER 2019



Total for the period June 2007 - October 2019

	Total for Tropical Cyclone (TC) - 15	<b>US\$106,443,920</b>
	Total for Earthquake (EQ) - 4	<b>US\$ 9,200,576</b>
	Total for Excess Rainfall (XSR) - 22	<b>US\$ 36,358,118</b>

Total  
**US\$152,002,614**

A total of

41

**PAYOUTS**  
Made to  
**13 MEMBER GOVERNMENTS**

Total payouts

US\$ **152** MILLION  
June 2007 - October 2019

## All payments made within 14 days

### NICARAGUA

Earthquake, 9 June

Policy: EQ

**US\$500,000**

TC Otto, November

Policy: TC

**US\$1,110,193**

### BARBADOS

TC Matthew, September/October

Policy: TC

**US\$975,000**

Policy: XSR

**US\$753,277**

### ST. VINCENT & THE GRENADINES

TC Matthew, September/October

Policy: XSR

**US\$285,349**

### SAINT LUCIA

TC Matthew, September/October

Policy: XSR

**US\$3,781,788**

### HAITI

TC Matthew, September/October

Policy: TC

**US\$20,388,067**

Policy: XSR

**US\$3,020,767**

### BELIZE

TC Earl, August

Policy: XSR

**US\$261,073**

### ST. KITTS & NEVIS

TC Irma, September

Policy: TC

**US\$2,294,603**

### ANGUILLA

TC Irma, September

Policy: TC

**US\$6,529,100**

Policy: XSR

**US\$158,823**

### THE BAHAMAS

TC Irma, September

Policy: XSR

**US\$163,598**

### TURKS & CAICOS ISLANDS

TC Irma, September

Policy: TC

**US\$13,631,865**

Policy: XSR

**US\$1,232,769**

TC Maria, September

Policy: TC

**US\$419,372**

### ANTIGUA & BARBUDA

TC Irma, September

Policy: TC

**US\$6,794,875**

### DOMINICA

TC Maria, September

Policy: TC

**US\$19,294,800**

Policy: XSR

**US\$1,054,022**

### BARBADOS

TC Maria, September

Policy: XSR

**US\$1,917,506**

### SAINT LUCIA

TC Maria, September

Policy: XSR

**US\$671,013**

### ST. VINCENT & THE GRENADINES

TC Maria, September

Policy: XSR

**US\$247,257**

### TRINIDAD & TOBAGO

Rainfall Event, 18-20 October

Policy: XSR

**US\$7,007,886**

### BARBADOS

TC Kirk, October

Policy: XSR

**US\$5,813,299**

### TRINIDAD & TOBAGO

Rainfall Event, 18-20 October

Policy: XSR

**US\$2,534,550**

### THE BAHAMAS

TC Dorian, September

Policy: TC

**US\$11,527,151**

Policy: XSR

**US\$1,297,002**

### TRINIDAD & TOBAGO

TC Karen, October

Policy: XSR

**US\$362,982**

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## Chairman's Message

The 2019 edition of our Annual Report marks my first full year as the Chairman of CCRIF SPC, which coincided with the first year of implementation of the Facility's 3-year Strategic Plan 2018–2021. The policy year 2018/19 was a significant year as several of our members continued their recovery from the devastating hurricanes of 2017. In the aftermath of these super storms which significantly impacted nine of our members, the Caribbean Community (CARICOM) made the bold declaration to make the Caribbean the first climate-resilient zone in the world.

CCRIF SPC occupies a unique space in the disaster risk financing and management arenas. As a company focussed on providing climate risk insurance to governments in the Caribbean and Central America, CCRIF shares CARICOM's bold ambition. In this context, "scaling up" has emerged as an imperative by both our members and donors. Indeed, their views on "scaling up" have guided and helped shape the current strategic direction of CCRIF SPC.

CCRIF SPC provides a level of financial protection for countries vulnerable to tropical cyclones, earthquakes and excess rainfall by allowing them to increase their financial response capability in the aftermath of disasters and reduce their economic and fiscal burden, thereby closing the protection gap. That notwithstanding, we are mindful of the imperative of "scaling up" our operations at four levels. First, **to enhance protection by increasing coverage** bought by existing members for existing products. Second, **to onboard new members**. In this regard, we are pleased to welcome Sint Maarten, British Virgin Islands and Montserrat, which joined the Facility in 2018, and Panama and Guatemala, which joined in 2019. Third, **to address natural hazard risks to which our current and prospective members are exposed and for which CCRIF currently provides no coverage**. Fourth, **to enhance the capital** to support the expansion of our suite of products. To that end, we have expended considerable effort over the past year, engaging development partners to access additional capital to support new product development. At present, we are pursuing development work on drought, agriculture and public utilities, which we aim to bring to market over the next twelve to eighteen months.

We are pleased to inform of the new models that now underpin our products for tropical cyclone, earthquake and excess rainfall. These models are not only more innovative than previous models, but are CCRIF developed and owned. They are based on the most current data and advances in model development thereby reducing the basis risk inherent in parametric products while simultaneously enhancing the quality of service provided to our members.

As CCRIF SPC plays its part in building resilience for shared prosperity in the small island and coastal states of the Caribbean and Central America, we are very cognizant of the need to build capacity by developing the next generation of disaster risk specialists, resilient communities and cutting-edge solutions for disaster risk management and climate change adaptation. We deliver this capacity building through our Technical

Assistance Programme, which comes under our corporate social responsibility framework. Over the past nine years, we have contributed in excess of US\$3 million to support disaster risk management activities. One especially pleasing accomplishment is the 80 tertiary level scholarships and 100 internships that CCRIF has financed. Indeed, we are supporting our young, bright and innovative future leaders!

Our Board is very passionate about stakeholder engagement and partnerships. This year, we intensified our efforts to strengthen our engagement with our members and wider stakeholders to cultivate higher levels of trust and to enable us to better understand our members' needs and thus meet and exceed their expectations. To support this commitment and advance this strategic objective, we have increased our face-to-face dialogue between CCRIF SPC's Board and management and members through our country visits at the time of our Board meetings. Furthermore, we are utilizing developmental communications products and tools that allow us to engage both online and face-to-face. These include the 'CCRIF Online Policy Forum' which has enabled increased interaction among our members and serves as a portal for community learning as members share experiences, lessons learned and best practices; and 'CCRIF E-News' – our online newsletter – designed to provide members, donors, stakeholders and the general public with current information related to the work of CCRIF SPC. This newsletter also shares technical and cutting-edge information related to disaster risk financing and disaster risk management.

In addition, I wish to thank our outgoing board member, Mr. Kenneth Blakeley, who retired this year, for his sterling contribution to CCRIF from its inception in 2007. His foresight and experience significantly contributed to the many innovative offerings that have been developed and implemented over the life of the Facility. Mr. Blakeley chaired both our Risk Transfer and Underwriting Committee and our New Products Committee.

I also take the opportunity to welcome to our Board, Mr. Michael Gayle, the CARICOM-nominated Board Member and Insurance Specialist. I look forward to his contribution.

I seize this opportunity to commend CCRIF's management, service providers and development partners for their hard work and collaboration. As successful as CCRIF is in fulfilling its value proposition to its members – speedy payouts within 14 days and being innovative, transparent and accountable – our Board and management are fully cognizant of the need to continuously improve our performance.

Over the next policy year, we will continue to pursue excellence as we support our member governments in their quest to pursue a resilient pathway to shared prosperity.



Timothy N.J. Antoine  
Chairman



# CEO's REPORT

This report will highlight CCRIF SPC's main accomplishments and activities during the 2018/19 policy year. This was the first year covered by our new Strategic Plan 2018-21, which reflects the objectives which emerged from consensus of our members and our regional and international partners. This report will present not only CCRIF's activities and accomplishments but also their contribution to the seven strategic objectives established for 2018-2021. The primary focus of the new strategic plan is on scaling up of CCRIF – in terms of increasing members' level of coverage, adding new members and offering new products. As I will describe, we made considerable progress on all three fronts during this policy year.

One key achievement was the addition of four new member countries: Montserrat, the British Virgin Islands, Sint Maarten and Panama. This brought the number of Caribbean members to 19 – the first increase since the Facility's inception – and the number of Central American members to 2 – with Panama joining Nicaragua, which became a member in 2015. On behalf of the CCRIF Board, Management and Team, I welcome these new members to CCRIF.

The 2018 hurricane season was not as active as the previous devastating year. During this policy year, CCRIF made payouts totalling US\$8.3 million to two member governments on their excess rainfall policies: Barbados for Tropical Cyclone Kirk and Trinidad & Tobago for a rainfall event, both in October 2018. Additionally, CCRIF made one payment to the Government of Haiti under the Aggregated Deductible Cover (ADC) feature of its Earthquake policy following an earthquake in October 2018. The ADC, introduced in 2017/18, was designed to provide a minimum payment for events that are objectively not sufficient to trigger a CCRIF policy, but which may have caused some level of damage in a member country.

For the 2018/19 policy year, CCRIF members in the Caribbean and Central America purchased a total of 50 country policies: 18 tropical cyclone (TC) policies, 15 earthquake (EQ) policies and 17 excess rainfall (XSR) policies. Even after the expenditure of US\$62 million for payouts in 2017/18, CCRIF was able to offer a discount of 5 per cent of the gross premium for Caribbean members on their TC and EQ policies. I am pleased to report that 12 member countries in the Caribbean and Central America increased their coverage for 2018/19 compared with the previous policy year. The total coverage limit for the Caribbean and Central American members was US\$754.5 million – an increase of almost 9 per cent over 2017/18.

CCRIF SPC's total capital at risk for 2018/19 comprised the retention of US\$37.2 million (US\$25 million for Caribbean TC/EQ, US\$7.7 million for Caribbean XSR, US\$1.5 million for

Central America TC/EQ and US\$3.0 million for Central America XSR) within the risk transfer programme and a further ~US\$48.8 million above the reinsurance programme up to the 1-in-1,824 year loss of ~US\$218 million. Therefore, I am pleased to report that the claims-paying capacity of CCRIF for the 2018/19 policy year was significantly greater than the modelled aggregate annual loss with a 1-in-1,000 chance of occurring, thus once again comfortably falling within CCRIF's guidelines for financial security and allowing the Facility to maintain long-term solvency with a shadow rating of A/A+.

The third pillar of scaling up involves the enhancement and development of models to bring new products to market. The tropical cyclone and earthquake policies offered for 2019/20 were based on the new SHERA model, which replaced the MPRES model, which had been used since 2011. The SPHERA model was developed as a state-of-the-art tool, tailor-made to the needs of our members, and designed to further improve the accuracy and stability of the loss assessment after an event, as well as the structuring of the risk transfer between CCRIF and its members and pricing of the policies.

An updated version of the excess rainfall model was also introduced in the 2019/20 policy year for loss assessment and pricing of the excess rainfall policies in the Caribbean XSR segregated portfolio (SP) and Central America SP. The XSR 2.5 model, also owned by CCRIF, was developed as part of a planned upgrade to further reduce basis risk and increase the stability of the loss estimates. This was done by slight modifications of the weather prediction algorithms implemented in the XSR model, taking into account the saturation of soil from recent rains, as well as additional observations available for humidity, temperature and atmospheric pressure.

The development of new models and enhancement of existing models are implemented as part of CCRIF's mode of continuous improvement and allow for increasingly robust risk analysis and a continual reduction of the basis risk in the products that CCRIF offers. Also this year, a fisheries model was completed. This model will underpin the COAST product for the fisheries sector developed under the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) initiative.

CCRIF's scaling up initiatives are possible through continued donor support. During this policy year, the governments of Germany and Ireland made contributions to the expansion of CCRIF. The German Federal Ministry of Economic Cooperation and Development (BMZ), through KfW, contributed €15 million to support the continued expansion of CCRIF into Central America. The Government of Ireland, through the Department of Foreign Affairs and Trade, contributed €1 million to CCRIF to support the development of new products and the increase in coverage levels and broader utilization of CCRIF's products by its members.

CCRIF continued its support to enhancing the understanding by member governments of CCRIF and its policies – as well as how they fit into national strategies for disaster risk management and development. Members of the CCRIF team delivered the training programme, "Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and Economic Policy" to seven member governments during this year. I am pleased to say that since the training programme was launched, CCRIF has delivered it to approximately 200 persons – from a range of government ministries and agencies – in 11 member countries.

One aspect of CCRIF's operations that our stakeholders appreciate is our Technical Assistance (TA) Programme, which continues to expand and increase its impact in the region. This year, CCRIF awarded 15 scholarships totalling US\$137,000 for undergraduate and postgraduate study in areas related to disaster risk management at the University of the West Indies and universities in the USA and UK. Since the scholarship programme began in 2010, CCRIF has awarded 77 scholarships totalling over US\$1.1 million to young people from throughout the

Caribbean. Also, in 2018, CCRIF placed 19 interns with an investment of approximately US\$55,000 at 12 national or regional organizations involved in some aspect of disaster risk management. Under the small grants programme, CCRIF awarded 5 new grants totalling US\$114,975 during the policy year. Including the new projects, CCRIF administered nine projects in 2018-19, four of which were completed during this period. These projects focus primarily on disaster risk reduction, climate change adaptation and ecosystems management. To date, CCRIF has provided 13 grants totalling over US\$300,000 to 7 NGOs and 2 academic departments. We believe that the TA Programme is making a real difference in creating a cadre of professionals who can contribute to increasing resilience to natural hazards and climate change in the region.

I am pleased to say that this year CCRIF signed a memorandum of understanding with a new partner, the Caribbean Regional Fisheries Mechanism (CRFM). The MOU is centred on collaboration on the COAST initiative as well as promotion of climate-resilient fishing, fish farming and resource management practices in the region. We also advanced discussions with the Caribbean Centre for Development Administration (CARICAD) on the establishment of an MOU. While we seek to engage new partners, we continued to engage with our long-standing partners throughout the year, implementing collaborative projects and programmes. We know that collectively, we can accomplish mutual goals with regard to improving disaster risk management in the region.

On the management side, Dr. Michael Spranger commenced duties as CCRIF's first Chief Risk Management Officer. The CRMO plays a key role as the lead technical officer of CCRIF and ensures the integrity of CCRIF's models and products. The next policy year will be challenging and exciting and I look forward to expanding the products and services we provide to our members. As countries increasingly become aware of the value of CCRIF to national disaster risk management strategies, I look forward to welcoming new members as well.



**Isaac Anthony**  
Chief Executive Officer

The table below provides a synopsis of the projects, programmes and key activities undertaken over the policy year and their contribution to the strategic objectives from our new Strategic Plan 2018-2021.

**S01: Innovative and Responsive Parametric Products**

To provide products, services and tools responsive to the needs of members

**S02: Resilience**

To enhance capacity for disaster risk management and climate change adaptation

**S03: Financial Sustainability**

To sustain financial solvency and integrity

**S04: Corporate Governance**

To sustain corporate integrity

**S05: Member Relations and Engagement**

To deepen our relationships with our member governments and to strengthen engagement with members

**S06 Scaling Up**

To increase member coverage, expand membership and develop new products and services

**S07 Strategic Partnerships**

To expand and deepen strategic partnerships

Achievements 2018-2019	Contribution to Achieving the Strategic Objectives						
	1	2	3	4	5	6	7
Issued 50 country policies for tropical cyclone (TC), earthquake (EQ), excess rainfall (XSR) to 20 Caribbean and Central American member countries for 2018/19	•		•			•	
12 countries increased coverage for 2018/19; total coverage limit of TC, EQ and XSR policies in Caribbean and Central America increased by almost 9% over previous year	•		•			•	
Made 2 payouts totalling US\$8.3 million to 2 member governments on XSR policies; made payment of US\$91,438 to 1 member government on the EQ Aggregated Deductible Cover – all payments made within 14 days	•		•				
Rolled out new SPHERA model for 2019/20 TC/EQ policies	•						

Achievements 2018-2019	Contribution to Achieving the Strategic Objectives						
	1	2	3	4	5	6	7
Rolled out new Excess Rainfall XSR 2.5 model for 2019/20 XSR policies	•						
Finalized new fisheries model for 2019/20 COAST policies for pilot countries	•					•	
Revised and continued fine-tuning of model for agricultural drought	•					•	
Implemented CRAIC project work plan in Saint Lucia, Grenada, Jamaica, Belize, Trinidad & Tobago	•				•		
Delivered CCRIF Training Programme in 7 Caribbean member countries	•	•			•		
With CDB, commenced implementation of Integrated Sovereign Risk Management in the Caribbean Initiative		•			•		•
Placed 19 interns in 16 regional and national organizations through CCRIF Regional Internship Programme		•			•		•
Awarded 4 new grants under CCRIF Small Grants Programme; 12 active projects in 2018-19		•			•		
Awarded 3 postgraduate scholarships for study in the UK and USA		•			•		
Awarded 12 postgraduate and undergraduate scholarships for study at UWI		•			•		
Met sustainability guidelines of being able to survive a 1-in-1,000 year event			•				
Donor capitalization of CCRIF increased			•			•	
Disseminated 2017-18 Annual reports in English and Spanish to stakeholders				•	•		
Kept Operations Manual current				•			
Maintained full compliance with legislative and regulatory requirements			•	•			
Maintained the risk register				•			
Introduced an Internal Compliance Checklist							
Undertook three internal audit exercises and successfully implemented recommendations				•			

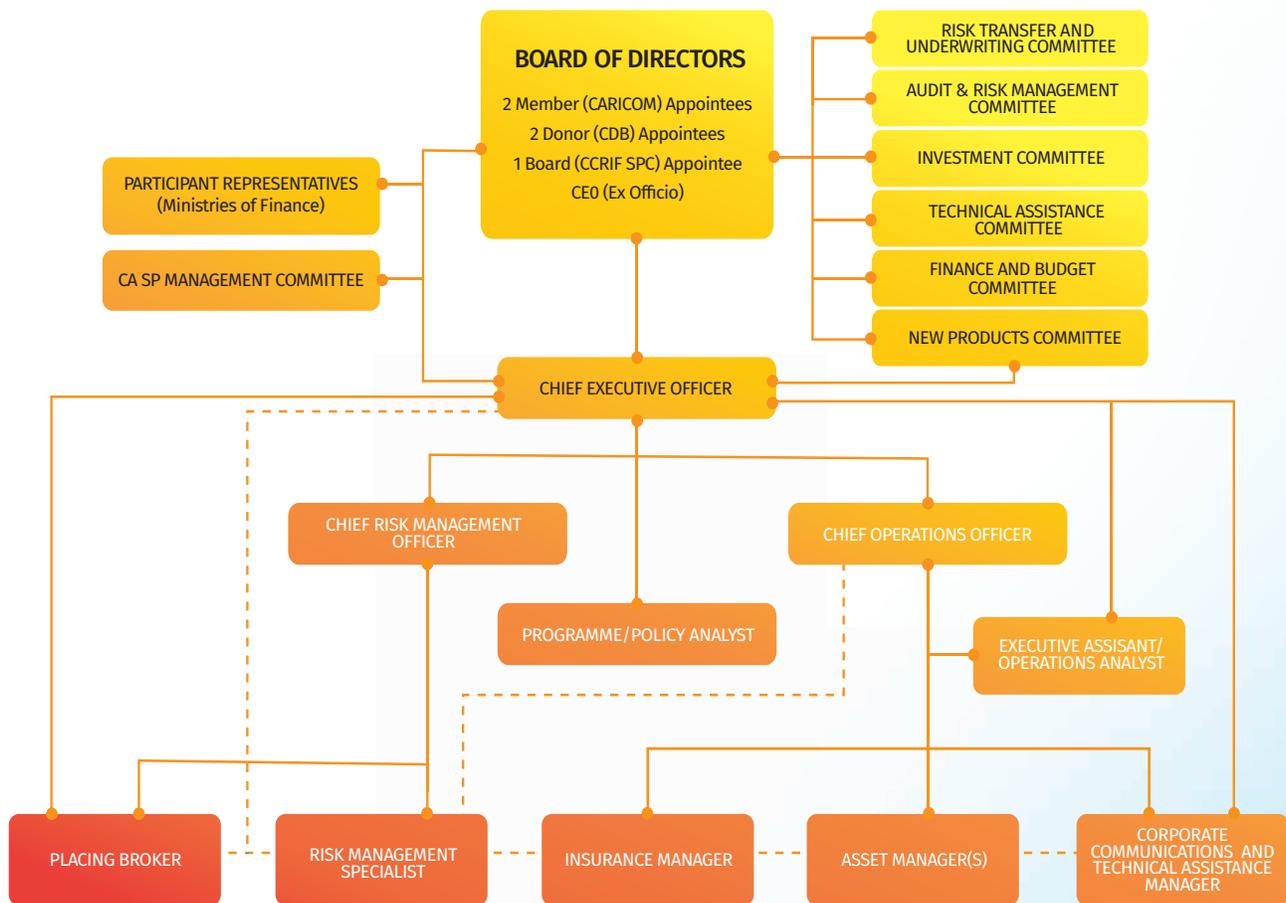
Achievements 2018-2019	Contribution to Achieving the Strategic Objectives						
	1	2	3	4	5	6	7
Conducted policy renewals discussions with member governments		•			•		
Produced over 30 publications and briefings		•			•		
Participated in over 20 conferences and stakeholder meetings		•			•		
Held Online Policy forum for permanent secretaries and senior officials in ministries of finance in member countries		•			•		
Four new countries became CCRIF members: 3 Caribbean and 1 Central American						•	
Engaged in policy discussions with potential Central American member countries						•	
Signed MOU with new partner organization, Caribbean Regional Fisheries Mechanism and drafted MOU with new partner Caribbean Centre for Development Administration		•					•
With CIMH, expanded tools and professional capacity to analyze hydro-meteorological events in the Caribbean; provided data on selected rainfall events to inform CCRIF models		•					•
Signed new MOU with CDEMA and developed workplan, which will include focus on building codes		•					•
With OECS, prepared early warning videos for communities		•					•
With ECLAC, conducted training to build capacity in the DaLA methodology that focuses on damage and loss assessments. Four countries benefitted – Turks and Caicos, The Bahamas, Anguilla and Trinidad & Tobago		•					•
With CCCCC, prepared draft revised framework, <i>Climate Change and the Caribbean: A Regional Framework for Achieving Development Resilient to Climate Change (2018-2028)</i>		•					•

# Organizational Overview



# ORGANIZATIONAL STRUCTURE

CCRIF's operations are laid out in the Facility's Operations Manual and are executed by six service provider companies under the guidance of the Board of Directors, the Chief Executive Officer (CEO), Chief Operations Officer (COO) and Chief Risk Management Officer (CRMO).



# Board of Directors



## Timothy Antoine

**Chairman and CARICOM-Nominated Board Member, Representing Member Countries**

Timothy Antoine was appointed CCRIF Chairman on 1 July 2018 after serving on the CCRIF Board since 2014. Mr. Antoine is the Governor of the Eastern Caribbean Central Bank. Previously, he was the Permanent Secretary in Grenada's Finance Ministry for 14 years. From 2005 to 2007, Mr. Antoine served as an Advisor to the Executive Director for Canada, Ireland and the Caribbean at the World Bank, working on behalf of the Caribbean and played a significant role in the establishment of CCRIF in 2007.



## Desirée Cherebin

**Vice Chairperson and Caribbean Development Bank-Nominated Board Member, Finance Specialist**

Desirée Cherebin is a Banking Supervision and Financial Services Consultant working with regional and international agencies, including the Caribbean Regional Technical Assistance Centre and the International Monetary Fund to assist countries with strengthening the regulation and supervision of their financial sectors. She was Director of Bank Supervision at the Central Bank of Barbados, prior to her retirement from that institution in 1997. She also worked as an Economist with the Ministry of Trade in Barbados and as an Advisor to the Governor of the Central Bank of Barbados.



## Faye Hardy

**Caribbean Development Bank-Nominated Board Member, Representing Donors**

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



## **Sandra Bailey**

**CCRIF SPC  
Board-Nominated  
Member**

Sandra Bailey is the Group Chief Operating Officer at CGM Gallagher Group and has over 30 years' experience in the insurance industry with primary focus in retail, reinsurance and captives. She is an Associate of the Chartered Insurance Institute of the UK (ACII) and the Institute of Risk Management (AIRM). Mrs. Bailey is a Distinguished Past President of the Kiwanis Club of Eastern St. Andrew, Jamaica, the President of Glenmuir High School Past Students' Association and a director of various public and private sector boards regionally and internationally.

## **Michael Gayle**

**CARICOM-Nominated  
Board Member, Insurance  
Specialist**

Michael Gayle is the Chief Executive Officer of the Cayman Islands National Insurance Company (CINICO). With over forty years of insurance experience, Mr. Gayle has held top executive positions in insurance companies in Jamaica and the Cayman Islands, and has provided consultancy services for insurance companies operating across the Caribbean. He is a Fellow of the Chartered Insurance Institute (FCII) and holds an MBA from Barry University in Florida. Mr. Gayle has served as a director of the Insurance Institute of Jamaica and as President of the Cayman Islands Insurance Association.

# Executive Management Team



## Michael Spranger

Chief Risk Management Officer

Michael Spranger was appointed CCRIF Chief Risk Management Officer on 1 July 2018. He has worked with leading reinsurance firms, a leading reinsurance broker, and catastrophe modelling firms in Asia, Latin America, and Europe. Starting his career developing earthquake catastrophe models as a geophysicist, he has gained significant experience in non-catastrophe pricing and reserving. Dr. Spranger has been actively involved in the development of national catastrophe pool solutions in Europe and Asia. He has undertaken multiple on-site damage inspection surveys in the aftermath of devastating earthquakes in Sumatra, China, Chile, Japan and New Zealand.

## Isaac Anthony

Chief Executive Officer

Isaac Anthony was appointed CCRIF Chief Executive Officer on January 1, 2013. Prior to this appointment Isaac served as Permanent Secretary, Planning and National Development in the Government of Saint Lucia. He also has served his country in key positions such as Accountant General, Registrar of Insurance, Director of Finance and Permanent Secretary, Finance. He served as a CCRIF board member appointed by CARICOM from 2007 to 2012. Mr. Anthony brings many years' experience as a senior finance and planning official with the Government of Saint Lucia coupled with service on the boards of key regional financial institutions such as the Caribbean Development Bank and the Eastern Caribbean Central Bank.

## Gillian Golah

Chief Operations Officer

Gillian Golah was appointed CCRIF Chief Operations Officer on 1 October 2015. Before she assumed this position, Mrs. Golah was the Vice President of Business Development at the Trinidad & Tobago International Financial Centre, where she played a central role in the establishment of the financial services outsourcing industry in Trinidad & Tobago. Previously, she served as Chief Operating Officer of Development Finance Limited after gaining substantial experience in credit operations, private equity, grant management and microfinance at the executive and board levels.

# The CCRIF Team of Service Providers



## **EVALUACIÓN DE RIESGOS NATURALES (ERN) / RISK ENGINEERING AND DESIGN (RED), RISK MANAGEMENT SPECIALIST**

The ERN/RED consortium team provides the services of risk management, financial planning, catastrophe modelling and coordination of reinsurance placement for CCRIF. RED, which began in 2008, has expertise in catastrophe risk modelling for earthquakes, tropical cyclones and floods. RED's projects deal with issuance of catastrophe bonds for sovereign countries and designing products for catastrophe risk management of insurance facilities. ERN was founded in 1996 and is the leading catastrophe risk modelling firm in Latin America. ERN has developed models for several perils, including earthquake, tropical cyclone and drought, and for many countries in the world. Paolo Bazzurro is the ERN/RED team leader for CCRIF.



## **LONDON & CAPITAL LTD., ASSET MANAGER**

London & Capital is a specialist asset management company head-quartered in London, UK. With more than 20 years' expertise and experience, the company focuses on capital preservation and wealth management. Iisl Lewis is London and Capital Limited's team leader for CCRIF.



## **BUTTERFIELD ASSET MANAGEMENT LTD., ASSET MANAGER**

Butterfield Asset Management is a fully integrated group business, operating across 4 jurisdictions – Bermuda, The Cayman Islands, London and Guernsey – and has been an investment manager for primary insurance and captive insurance companies in Bermuda and the Cayman Islands for over 25 years. Butterfield Bank Cayman was incorporated in 1967 as a wholly-owned subsidiary and is regulated by the Cayman Islands Monetary Authority. Reece Jarvis is Butterfield's team leader for CCRIF and is Head of Fixed Income for the Group.



## **WILLIS RE, REINSURANCE BROKER**

Willis Re, part of Willis Towers Watson, is one of the world's leading reinsurance advisory and broking businesses. Through its global network, Willis Re delivers world-class reinsurance expertise and analytics capabilities to a diverse client base, serving the risk management and risk transfer needs of all the world's major re/insurance carriers and many national catastrophe schemes. Willis Re also works in partnership with the Willis Research Network (WRN), the world's largest collaboration between academia and the finance and re/insurance industries. With over 50 world-leading institutions in the network, the WRN is unique to Willis. It provides an essential foundation for catastrophe model and vendor model analysis. Anthony Phillips, Cameron Roe and David Simmons are Willis Re's team leaders for CCRIF.



## **SAGICOR INSURANCE MANAGERS LTD., INSURANCE MANAGER**

Sagicor Insurance Managers Ltd. (SIM) is a member of the Sagicor Financial Group, which is listed on the Barbados, Trinidad & Tobago and London Stock Exchanges. Formed originally as Barbados Mutual in 1840, Sagicor has become the leading indigenous financial services organization in the Caribbean, with a presence in 21 countries across the Caribbean, the United Kingdom, in 41 states of the United States and the District of Columbia. SIM provides insurance management services in the Cayman Islands, and provides regulatory, accounting and corporate secretarial support to CCRIF. Ivan Carter is Sagicor's team leader for CCRIF and is supported by Mark Thompson, Kimberlynn Battick and Suzette Ebanks.



## **SUSTAINABILITY MANAGERS, CORPORATE COMMUNICATIONS AND TECHNICAL ASSISTANCE MANAGER**

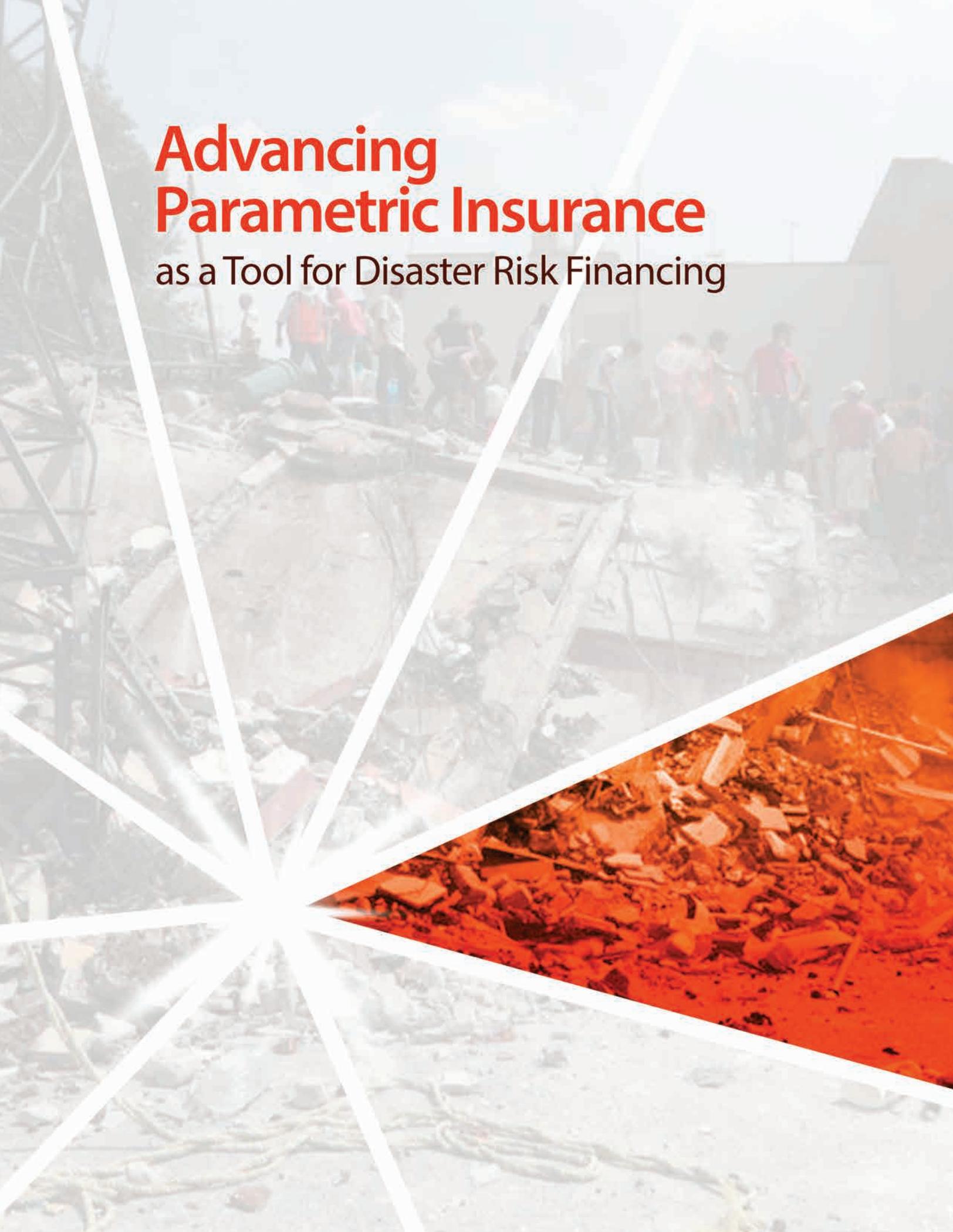
Sustainability Managers (SM) is a development consultancy firm that offers a range of services, primarily to public entities as well as international and regional organizations in the areas of policy development, development planning and capacity building in the areas of environmental management, disaster risk management, sustainable development planning and climate change within the context of the blue and green economies. SM manages the CCRIF Technical Assistance programme as well as its corporate and development communications, strategic planning processes, some special projects and information technology platforms. Elizabeth Emanuel is Sustainability Managers' team leader for CCRIF and is supported by Gina Sanguinetti Phillips as Programmes Director, Anthony Murray and Charmaine Limonius.





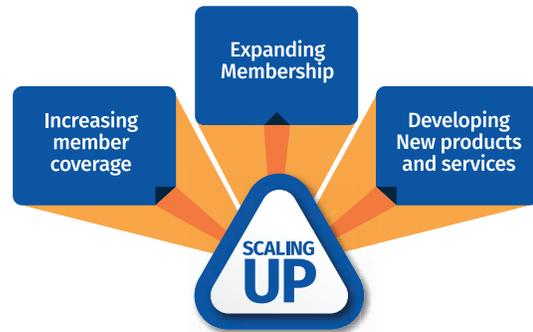
# Advancing Parametric Insurance

as a Tool for Disaster Risk Financing



# Advancing Parametric Insurance as a Tool for Disaster Risk Financing

CCRIF, through the parametric insurance products it provides, is a key tool in a country's disaster risk financing strategy and has been designed to provide quick liquidity after a natural disaster, allowing governments to be able to provide for and respond to its most pressing needs. CCRIF was not designed to cover all the losses on the ground – but rather to allow governments to reduce their budget volatility and to guarantee capital for emergency relief. The Facility, though registered as a Segregated Portfolio Company, effectively operates as a not-for-profit or similar to a mutual insurance company and currently provides its products and services to 19 Caribbean governments and 3 Central American governments. Unlike indemnity or traditional insurance, CCRIF's parametric insurance products are insurance contracts that make payments based on the intensity of an event and the amount of loss calculated in a pre-agreed model caused by these events, thereby helping governments jumpstart recovery after a disaster as payouts are made within 14 days of a catastrophic event. Parametric insurance is a mechanism by which governments can offload or transfer a portion of their risk to CCRIF.



## Policy Renewals, Member Coverage and Policy Payouts

CCRIF is committed to providing coverage to its members at the lowest possible price. For 2018/19, member governments benefitted from a discount of 5 per cent of the gross premium for the TC and EQ policies.

For the 2018/19 policy year, CCRIF members in the Caribbean and Central America purchased a total of 50 country policies<sup>1</sup>: 18 tropical cyclone (TC) policies, 15 earthquake (EQ) policies and 17 excess rainfall (XSR) policies. The total number of policies purchased this policy year increased from the previous policy year when 42 policies were purchased – primarily due to new policies for four new member countries. Twelve member countries in the Caribbean and Central America increased their coverage for 2018/19 compared with the previous year.

During the policy year 2018/2019, CCRIF made payouts totalling US\$8.3 million to two member governments – on their excess rainfall policies:

- Barbados: Tropical Cyclone Kirk in October 2018 – US\$5,813,299
- Trinidad & Tobago: a rainfall event on October 18-20 2018 – US\$2,534,550

Additionally, CCRIF made one payment of US\$91,438 to the Government of Haiti under the Aggregated Deductible Cover (ADC) feature of its Earthquake policy following an earthquake in October 2018. The ADC is a recent policy feature for tropical cyclone and earthquake policies

## Contribution to Strategic Objectives

INNOVATION AND RESPONSIVE  
PARAMETRIC PRODUCTS

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<sup>1</sup> The Bahamas has three tropical cyclone and excess rainfall policies, each of which covers a portion of the country. Trinidad & Tobago has two excess rainfall policies – one for each island. The figures for the number of country TC and XSR policies counts all sub-national policies for each peril as one country policy for that peril.

first introduced in the 2017/2018 policy year. It was designed to provide a minimum payment for events that are objectively not sufficient to trigger a CCRIF policy, but which may have caused some level of damage in a member country.

**All payments made in 2018/19 on member countries' policies and the ADC policy feature totalled US\$8,439,287.**

Barbados Prime Minister Honourable Mia Amor Mottley met with CCRIF CEO Mr. Isaac Anthony, Deputy Chairperson Mrs. Desirée Cherebin and board member Mrs. Faye Hardy at a short ceremony in October 2018 to mark the payout by CCRIF to the Government of Barbados.

Prime Minister Mottley thanked CCRIF: ***“Every dollar in damage for a country that is in a tight fiscal situation is a dollar that we really would have preferred not to lose and therefore [we are pleased] to have this sum coming back to us to help us offset some of the damage as a result of Tropical Storm Kirk.... we are trying to take a proactive approach and this money will help us to continue in that manner.”***



L-R: Minister of Home Affairs Hon. Edmund Hinkson, CCRIF board member Mrs. Faye Hardy, CCRIF Deputy Chairperson Mrs. Desirée Cherebin, Prime Minister Hon. Mia Amor Mottley, CCRIF CEO Mr. Isaac Anthony, and Director of the Department of Emergency Management Ms. Kerry Hinds at the CCRIF payout ceremony held on October 19 2018.

## Expansion of Membership



Four new countries joined CCRIF during this policy year: Montserrat and the British Virgin Islands, which joined at the beginning of the policy year on June 1 2018; Sint Maarten, which joined in September 2018 and Panama, which joined in January 2019. In February 2019, CCRIF CEO Mr. Isaac Anthony publicly welcomed Panama as CCRIF's newest member at a special side event held during a Regional Forum in Panama hosted by that Government, under the theme, "Towards a more Resilient Central America".

## Contribution to Strategic Objectives

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(L-R): Mr. Abel Caamaño – Country Representative for Panama, World Bank; Mr. Martin Portillo – Executive Director, COSEFIN; Ms. Dilka Escobar – Director, DICRE, Ministry of Economy and Finance, Panama; Mr. Isaac Anthony - CEO, CCRIF SPC; and Mr. Oliver Serrano, Director, Investments, Concessions and State Risks, Ministry of Economy and Finance, Panama

During the year, CCRIF continued discussions with other countries in both the Caribbean and Central America to facilitate their membership in CCRIF.

## Model Development and Enhancement

### Tropical Cyclone and Earthquake

During this policy year, CCRIF finalized the new SPHERA (System for Probabilistic Hazard Evaluation and Risk Assessment) risk model, which underpins the 2019/20 policies for Tropical Cyclone (TC) and Earthquake (EQ). SPHERA replaces the Multi-hazard Parallel Risk Evaluation System (MPRES) which had been used since 2011.

SPHERA is a new state-of-the-art model, based on the latest scientific findings and the most updated hazard datasets and its development is in keeping with CCRIF's principle of continuous improvement. The new model features:

- New, up-to-date ground motion, wind and storm surge models
- A larger and more detailed stochastic catalogue of events
- A more detailed exposure database, including infrastructure and facilities
- New, updated vulnerability functions.



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### Excess Rainfall

At the beginning of 2018, CCRIF updated the Excess Rainfall (XSR) model (to XSR 2.1) which covers rainfall to improve the ability of the model to better estimate losses due to shorter intense rainfall events and thus reduce the basis risk of the XSR parametric product. The XSR 2.1 model was used for the 2018/19 policy year and included data on several important rainfall events that occurred in 2016 and 2017, such as tropical cyclones Earl, Matthew, Irma and Maria and other rainfall events not induced by tropical cyclones. XSR 2.1 also included the additional exposure data collected during the development of the SPHERA TC/EQ model. The inclusion of the 2016 and 2017 events and the updated exposure database within the risk analysis of the countries provided a significant improvement in the assessment of the precipitation hazard in the region and allowed more accurate policies for member countries.



During 2018-19, the XSR 2.1 model was further upgraded to XSR 2.5 for the 2019/20 policy year. The three main improvements of the XSR 2.5 version were:

- An updated hazard module: it includes the assimilation of observed data (meteorological observations, such as temperature, pressure, humidity) into the WRF weather model (this new model set-up is called WRF7) and it introduces a new weather model set-up, called WRF5, which replaces WRF2
- An updated loss module: it includes multiple primary triggers and a component that accounts for the soil saturation at the beginning of a rainfall event

- An updated vulnerability module: the vulnerability functions have been modified to account for the different behaviour of the three precipitation models

These revisions allow for an increasingly robust risk analysis and a continual reduction of the basis risk in the excess rainfall policy product.

### Fisheries Model and COAST Policy for the Fisheries Sector

The fisheries model for the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) insurance product was completed during 2018/19. For the 2019/20 policy year, CCRIF will make available to select pilot countries a product for the fisheries sector under the COAST initiative. COAST is a partnership between the US Department of State, the World Bank, CCRIF and the Caribbean Regional Fisheries Mechanism (CRFM). The COAST parametric insurance product provides coverage for losses caused by adverse weather on fisherfolk and other stakeholders in the fisheries sector and for direct damages caused by tropical cyclones (wind and storm surge) to fishing vessels, fishing equipment and fishing infrastructure.

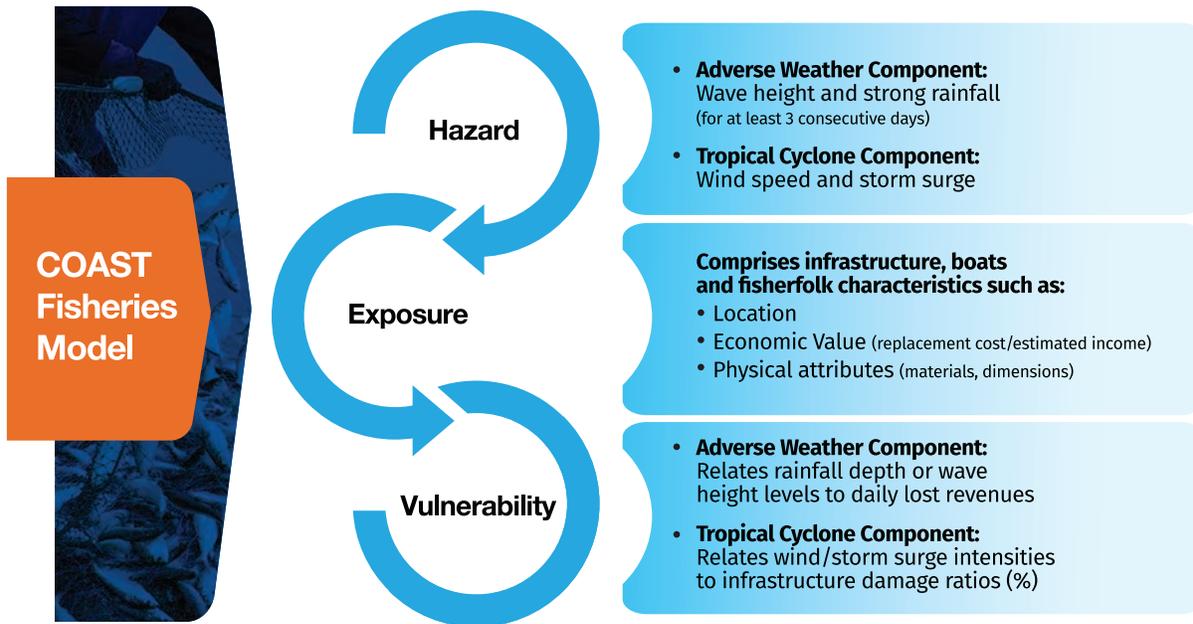
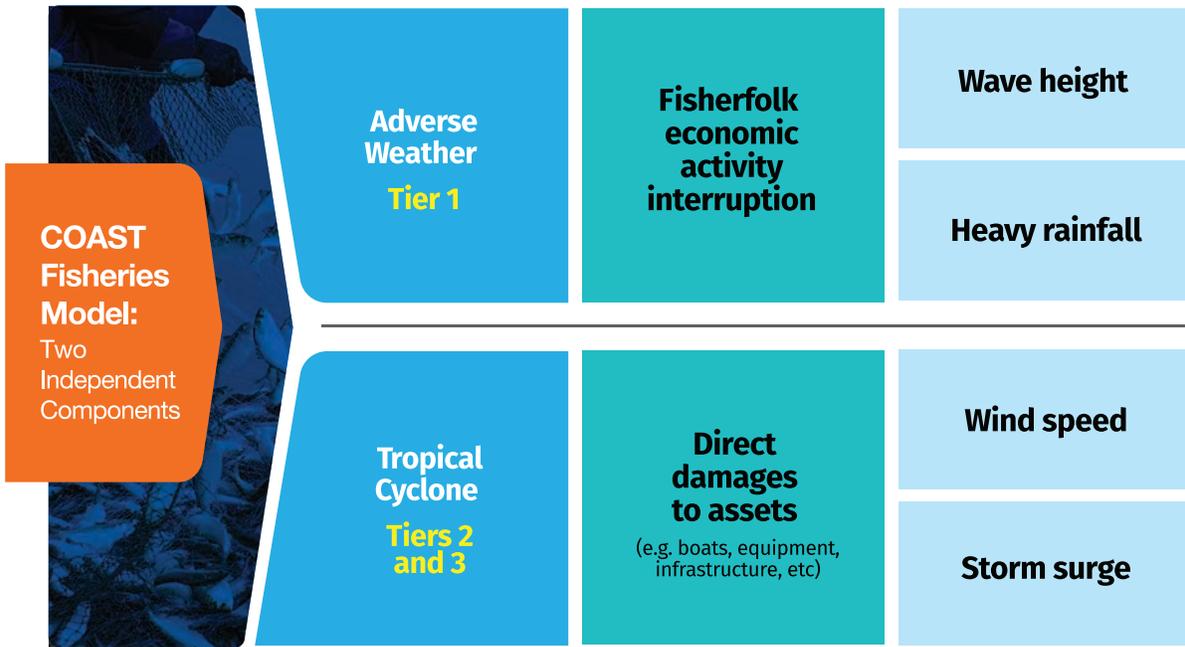
The development of the model and policy involved extensive consultation with government officials from the ministries and agencies responsible for finance, agriculture/fisheries, disaster management and the offices of the Accountant General and Auditor General – as well as members of fisher cooperatives, fisherfolk and other persons involved in the fisheries sector.



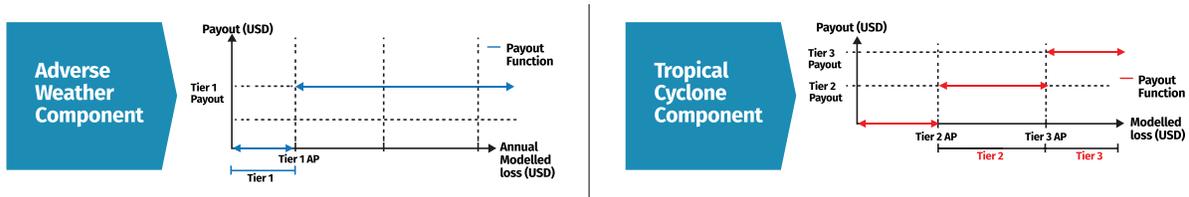
The new and innovative COAST product for fisheries is a sovereign product that provides coverage at the individual level. In other words, fisherfolk are the beneficiaries of a payout.

The fisheries model comprises two main components:

- 1 Adverse Weather (AW) Component: includes the evaluation of losses caused by adverse weather to fisherfolk and others in the fisheries sector that prevent them to carry out their usual activities, which is related to the sea condition and the occurrence of heavy rainfall. “Adverse weather” is defined as high waves and occurrence of heavy rainfall throughout the policy year.
- 2 Tropical Cyclone (TC) Component: assessment of direct damages by tropical cyclone events to fishing vessels, fishing equipment and infrastructure, which is related to tropical cyclone-induced strong winds and storm surges. This component is underpinned by a modified and enhanced version of the SPHERA model, which considers only the portion of the exposure database related to the fisheries sector, paying particular attention to landing sites, piers, warehouses, waterfront structures, boats and storage buildings.



## COAST Payouts



The COAST parametric insurance product follows a three-tier payment scheme:

- Tier 1 consists of a lump sum payment provided once an annual aggregate deductible threshold is met using the Adverse Weather component.
- Tier 2 consists of a lump sum payment provided if a Tropical Cyclone event loss falls within a defined interval.
- Tier 3 provides a lump sum payment if a Tropical Cyclone event loss is above the Tier 2 interval's upper limit.

### Dissemination of COAST Payouts to Beneficiaries

If a country's policy is triggered by an event (i.e. if the country losses are greater than the policy's Tier 1 Attachment Point (AP) (for Adverse Weather) or Tier 2 or Tier 3 Attachment Point (for Tropical Cyclone)), CCRIF will automatically provide the payout to the Ministry of Finance within 14 days of the event. After the Ministry of Finance receives the payout, the process to disseminate funds to pre-determined beneficiaries is conducted. This process and who are considered beneficiaries are developed by the Government in collaboration with CCRIF and is determined at policy inception. Beneficiaries may include fisherfolk, boat owners, captains, crew members, and fish vendors, among others.

### Drought

The purpose of the drought model being developed by CCRIF is to identify agricultural drought events (i.e., droughts affecting crop production) occurring in Caribbean and Central American countries, and to assess the resulting losses due to reduced yield. CCRIF has made significant advancement in the development of the drought risk model. During this policy year, CCRIF engaged with regional stakeholders to discuss the model, for example at the Caribbean Climate Outlook Forum (CariCOF) hosted by the World Meteorological Organization.



After last year's technical model advancements, several developments at the business level took place during this policy year to facilitate full product development. Activities undertaken this policy year included a loss correlation estimation among countries and perils in other CCRIF segregated portfolios to assess risk transfer structures; policy wording elaboration and revision; and submission of the product's business plan for regulatory approvals.

### Public Utilities

During this year, CCRIF continued engagement with the Caribbean Electric Utility Services Corporation (CARILEC) and national utility companies to initiate the development of a parametric insurance product for power supply companies to cover losses associated with

tropical cyclones. The product currently under development is based on a tropical cyclone risk model that computes losses caused by wind and storm surge to transmission and distribution lines. The model is being developed and will be tested in three pilot countries (Anguilla, Turks & Caicos Islands and Cayman Islands), while preliminary discussions have been undertaken with at least two other countries. The parametric insurance product for the first three countries will be completed during the 2019/2020 policy year and expanded to other countries in subsequent years. Additionally, CCRIF continued engagement with the Caribbean Water and Wastewater Association (CWWA) about developing a product for water and wastewater utilities and also is pursuing development of a product for telecommunications.



### Agriculture

Some CCRIF member countries have used their payouts on their tropical cyclone or excess rainfall policies to support their agriculture sector. The drought product also will provide coverage for the agriculture sector. However, governments in the region have been requesting a comprehensive product specifically for the sector (for farming activities and related processes) – one which addresses and includes different perils, such as extreme rainfall, tropical cyclone-induced extreme wind and coastal flooding, and drought. During this year, CCRIF continued discussions with development partners and member governments about the development of a holistic model for agriculture.



### Building Technical Capacity in the Region: CCRIF Technical Workshop on New Models – Enhancing Understanding of SPHERA and XSR 2.5



In March 2019, CCRIF hosted a technical workshop for key stakeholders and regional organizations to present and launch its new models in the Caribbean. The main objectives of the workshop were to provide an in-depth overview and facilitate a comprehensive understanding of the new SPHERA and XSR models, including information on the data underpinning the models, and to receive feedback from regional organizations. The workshop also provided information on the development of new models for fisheries, drought, agriculture, and utilities.

Over 30 technical experts attended the workshop from regional organizations including among others: the Caribbean Institute of Meteorology and Hydrology, Caribbean Meteorological Organization, Caribbean Disaster and Emergency Management Agency, the University of the West Indies Climate Studies Group, Caribbean Development Bank, Caribbean Regional Fisheries Mechanism, Association of Caribbean States as well as the World Bank.

## Development of Country Risk Profiles

The new models for tropical cyclone and earthquake and the changes to the excess rainfall model required the preparation of new risk profiles for these three perils for each member country. The country risk profiles provide the basis for the pricing of member countries' policies.

The risk profiles provide an outline of the hazard characteristics and risks for a country and a technical overview of the model which underpins the related policies (SPHERA for TC and EQ and XSR 2.5 for XSR). The new models resulted in changes to the event loss curves that show the losses for the country at different probabilities of occurrence (more precisely referred to as probabilities of exceedance) and thus the policy characteristics.

The country risk profiles provide information to risk managers with simplicity, accuracy and robustness about the demographic, geological and economic characteristics of their territories. The profiles also assess the impact of historical events that may have caused damage to infrastructure, population and the economy.

## Microinsurance – The Climate Risk Adaptation and Insurance in the Caribbean Project

CCRIF continued to support the implementation of Phase II of the Climate Risk Adaption and Insurance in the Caribbean project (CRAIC II) in collaboration with the Munich Climate Insurance Initiative, International Labour Organization's Impact Insurance Facility, DHI Water & Environment and GK Insurance. The project is funded by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU).

Under this project a microinsurance product, called the Livelihood Protection Policy (LPP) was developed to help protect the livelihoods of vulnerable low-income individuals such as small farmers, tourism workers, fishers, market vendors and day labourers, by providing

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quick cash payouts following extreme weather events (specifically, high winds and heavy rainfall). The project has been working in five countries - Jamaica, Saint Lucia, Grenada, Belize and Trinidad & Tobago.

During 2018/19, the following activities were undertaken with the support of CCRIF:

- The CRAIC team conducted three field missions in Belize, Trinidad & Tobago and Grenada towards engaging key stakeholders around microinsurance. Stakeholders included government ministries and agencies with responsibility for finance, insurance regulation, agriculture, disaster management, local government, environment, and planning; companies in the insurance and banking sector; local authorities; and non-governmental organizations including cooperatives.
- CCRIF developed a policy brief, “Linking Social Protection with Climate Resilience and Adaptation”. The briefing presents a set of policy recommendations to assist governments in the region to consider social protection from a climate change perspective and identify how the social protection sector can contribute to increased resilience to the adverse impacts of climate change through the use of catastrophe risk insurance both at the sovereign and microinsurance levels – building on existing mechanisms such as CCRIF SPC and CRAIC.
- The team engaged with insurance companies in Belize and Trinidad & Tobago towards product development ensuring that the microinsurance product is tailored to the needs of each market.
- The team prepared country briefs for the participating governments of the five countries to keep them abreast of activities being undertaken.
- The project produced a range of materials – brochures, videos, testimonials and a dedicated page on the CCRIF website to raise awareness about the project as well as on microinsurance and the linkages with climate risk
- The project hired UN Volunteers to open new channels for increasing awareness and partnerships between the project and key organizations in two of the five countries – Saint Lucia and Jamaica
- The CRAIC team hosted a training session titled “The World of Climate Risk Insurance” at the Understanding Risk Caribbean Conference in May 2019, which focused on climate risk insurance and how the LPP fits into disaster risk management.



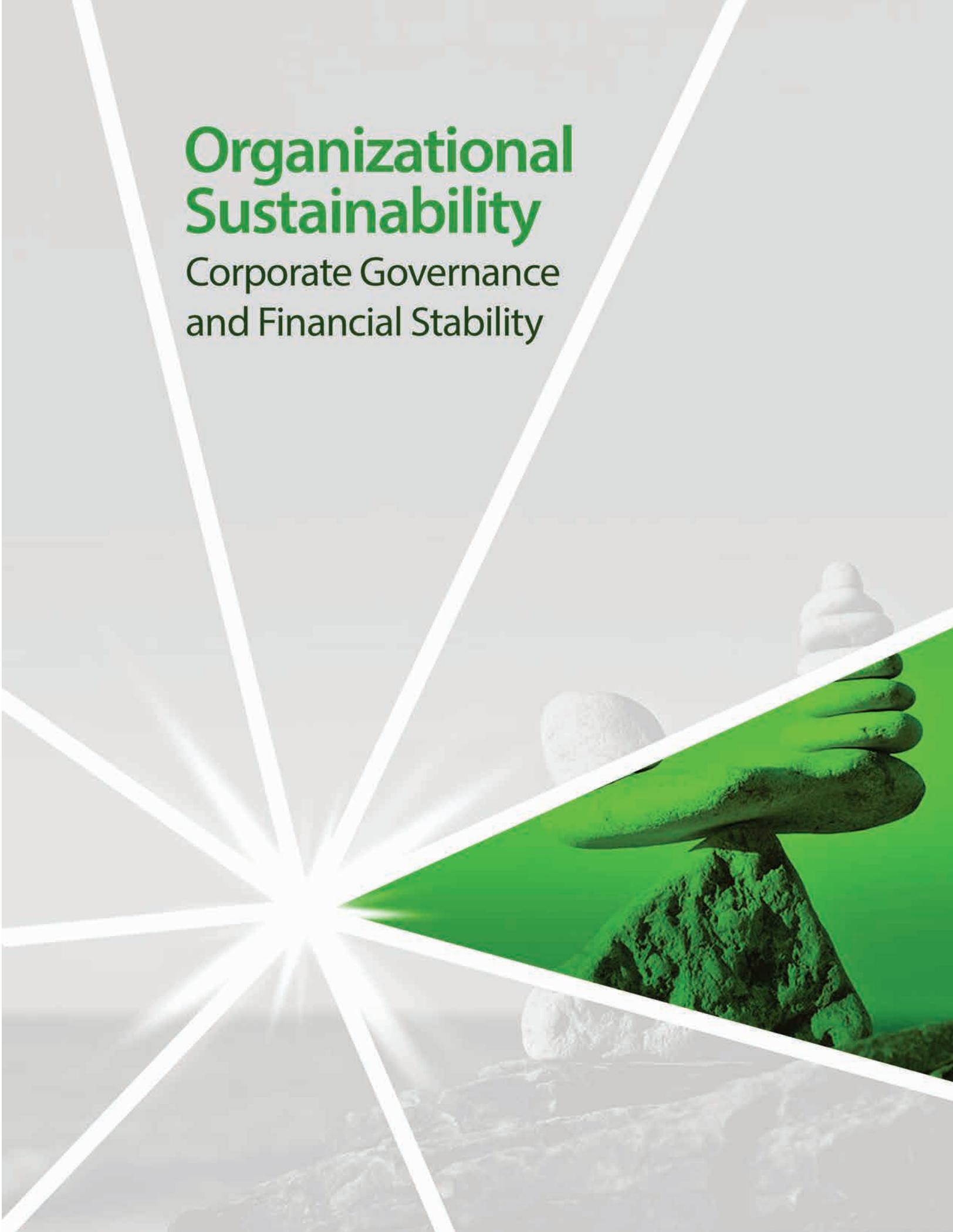
Stakeholders at a CRAIC II workshop in Belize



Participants in the CRAIC Training Session at the Understanding Risk Conference

# Organizational Sustainability

Corporate Governance  
and Financial Stability



# Organizational Sustainability

## Corporate Governance and Financial Stability

During 2018-2019, CCRIF continued to enhance its management framework to facilitate sustained growth and scaling up while enhancing efficiencies and reducing the risk of business interruption. CCRIF's corporate governance framework abides by the concepts of transparency and accountability and is designed to ensure that the Facility is fully accountable to its members, stakeholders and supporting donors. This is achieved through a range of complementary mechanisms, including providing various reports to members and stakeholders on the performance of the Facility. The Board also ensures that the CCRIF team provides quarterly reports that measure performance against the organization's strategic objectives in a timely manner. With respect to financial stability, CCRIF continues to work to maintain a strong capital base and continuously reviews its investment policy to be able to be flexible in negotiating advantageous rates for members and for the Facility ensure that it maintains its claims-paying capacity.

### CCRIF's Financial Stability

CCRIF SPC issued 33 annual policies<sup>2</sup> for the EQ/TC Segregated Portfolio (SP) to 17 Caribbean countries for the 2018/2019 policy year, 18 policies for the XSR SP to 15 Caribbean countries, and 4 policies (EQ, TC and XSR) for the Central America SP to 2 COSEFIN<sup>3</sup> countries.

The year's premium income for tropical cyclone and earthquake coverage in the Caribbean totalled US\$24.6 million. CCRIF's aggregate exposure for policies written for the EQ/TC perils in the Caribbean was US\$696 million: US\$406 million for tropical cyclone coverage and US\$290 million for earthquake. Annual premium from the XSR policies in the Caribbean totalled almost US\$8.9 million, covering an aggregate exposure of more than US\$126 million in member countries.

For the Central American region, the premium income was US\$2.8 million, with US\$1.0 million for tropical cyclone coverage, US\$0.5 million for earthquake and US\$1.3 million for excess rainfall. The coverage limit in the region was US\$49.6 million: tropical cyclone – US\$18.3 million, earthquake – US\$10.0 million, and excess rainfall US\$21.4 million.

### Total Coverage Limit



CCRIF SPC for Caribbean EQ/TC SP retained US\$25 million and purchased an additional US\$145 million of reinsurance capacity above the retention to support the claims-paying capacity of the Facility (see Figure 1). Reinsurance was purchased from the international reinsurance

### Contribution to Strategic Objectives



<sup>2</sup>The Bahamas has three tropical cyclone and excess rainfall policies, each of which covers a portion of the country. Trinidad & Tobago has two excess rainfall policies – one for each island. The figures for the number of TC and XSR policies counts each sub-national policy as a separate policy.

<sup>3</sup>Council of Ministers of Finance of Central America, Panama and the Dominican Republic

markets. The top of the reinsurance structure, at US\$170 million, provided claims-paying capacity for aggregate annual losses with an approximately 1-in-503 chance of occurring. Additionally, a sublayer of US\$20 million in excess of US\$5 million with an aggregated US\$20 million deductible was purchased for the last policy cycle at a 50 per cent placement. The structure applies for a three-year period; it is already active and in its second year of operation. The rest of the programmes were placed at 100 per cent.

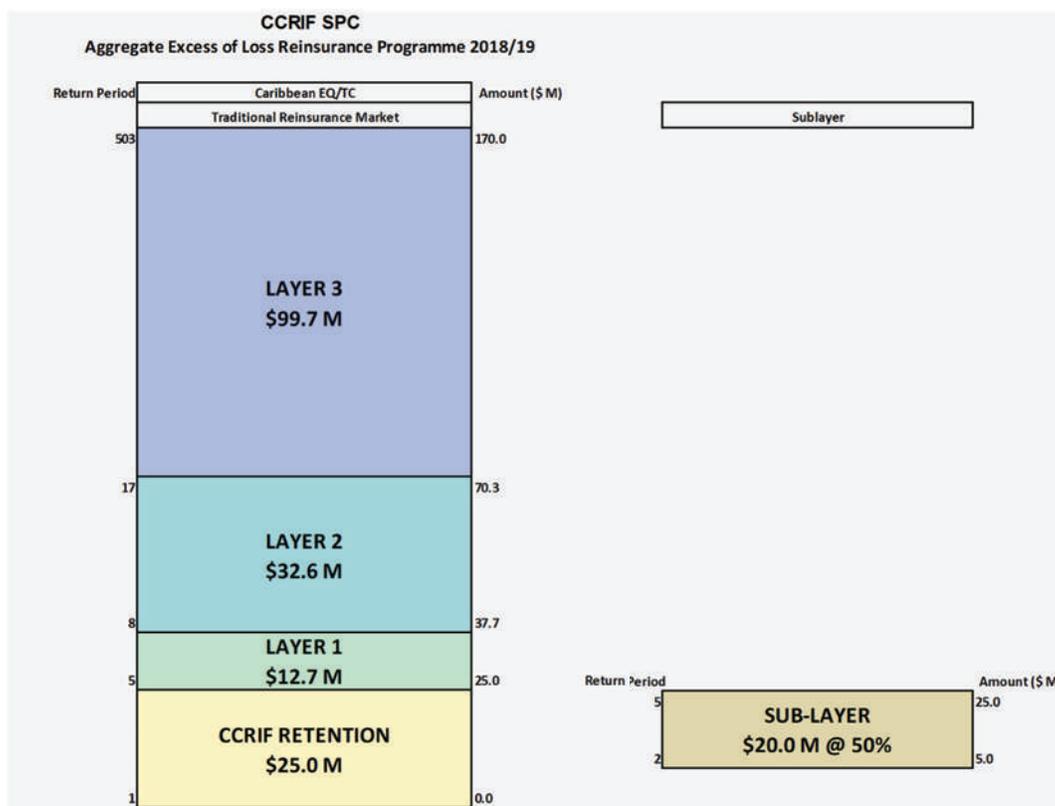


Figure 1: Aggregate Excess of Loss Reinsurance Programme 2018/19 for Caribbean EQ/TC

This sublayer can become an active coverage once US\$20 million in losses are aggregated during the first two years of coverage after a US\$5 million deductible. The coverage will last for the remaining years in the period after the aggregate losses are surpassed.

CCRIF SPC for Caribbean XSR SP retained US\$7.7 million and purchased an additional US\$36.5 million of reinsurance capacity to support the claims-paying capacity of the Facility (see Figure 2). The top of the reinsurance structure, at US\$44.2 million, provided claims-paying capacity for aggregate annual losses with an approximately 1-in-1,055 chance of occurring.

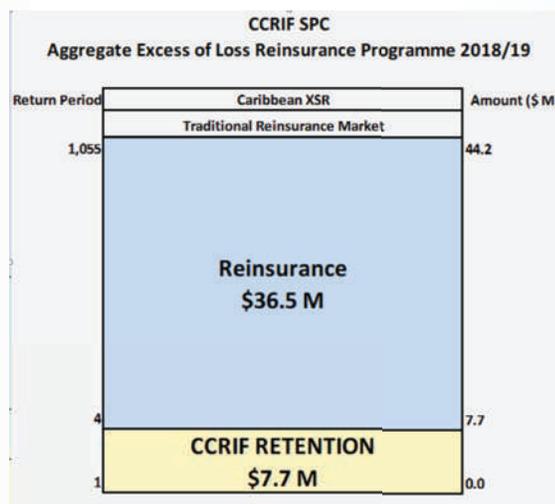


Figure 2: Aggregate Excess of Loss Reinsurance Programme 2018/19 for Caribbean XSR

CCRIF SPC for Central America SP retained US\$1.5 million for TC/EQ and US\$3.0 million for XSR. CCRIF SPC purchased US\$18.5 million of reinsurance capacity for TC/EQ and US\$9.0 million for XSR to support the claims-paying capacity of the Facility (see Figure 3). The top of the reinsurance structure, at US\$20.0 million for TC/EQ and at US\$12.0 million for XSR, provided claims-paying capacity for aggregate annual losses with an approximately 1-in-1,080 chance of occurring for TC/EQ and 1-in-395 chance of occurring for XSR.

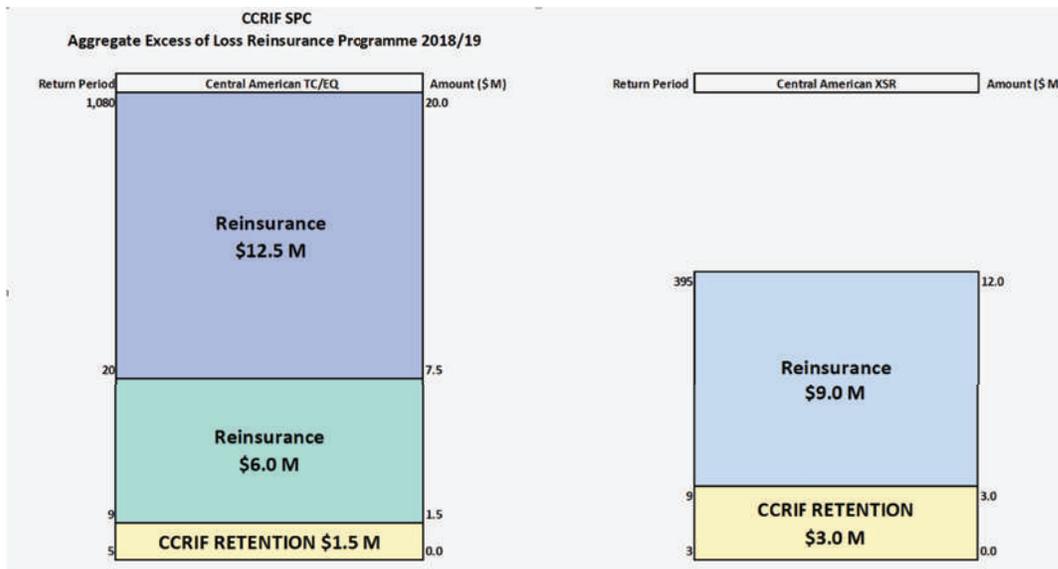


Figure 3: Aggregate Excess of Loss Reinsurance Programme 2018/19 for Central America TC/EQ and Central America XSR

CCRIF SPC’s total capital at risk for 2018/19 comprised the retention of US\$37.2 million (US\$25 million for Caribbean TC/EQ, US\$7.7 million for Caribbean XSR, US\$1.5 million for Central America TC/EQ and US\$3.0 million for Central America XSR) within the risk transfer programme and a further ~US\$48.8 million above the reinsurance programme up to the 1-in-1,824 year loss of ~US\$218 million.

The claims-paying capacity of CCRIF for the 2018/19 policy year was thus significantly greater than the modelled aggregate annual loss with a 1-in-1,000 chance of occurring, thus comfortably falling within CCRIF’s guidelines for financial security and it was substantially better than any of its peers in either the public or private sectors.

### CCRIF’s Organizational Continuity

Mr. Timothy Antoine was appointed as Chairman of CCRIF SPC, effective July 1, 2018, for a 3-year term. Mr. Antoine succeeded Mr. Milo Pearson who chaired CCRIF’s board from its inception in 2007 until his retirement. Mr. Antoine is the Governor of the Eastern Caribbean Central Bank. From 2005 to 2007, he served as an Advisor to the Executive Director for Canada, Ireland and the Caribbean at the World Bank, working on behalf of the Caribbean, and played a significant role in the establishment of CCRIF in 2007. Mr. Antoine was the CARICOM-appointed member on the CCRIF Board from 2014 up until his appointment as Chairman in 2018. Also joining the board in 2018 was Mrs. Sandra Bailey as the CCRIF SPC Board-Nominated Member. Mrs. Bailey is the Group Chief Operating Officer at CGM Gallagher Group and has over 30 years’ experience in the insurance industry with primary focus in retail, reinsurance and captives.

### Contribution to Strategic Objectives

CORPORATE GOVERNANCE

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On the management side, Dr. Michael Spranger commenced duties as CCRIF's first Chief Risk Management Officer (CRMO) on 1 July 2018. He is responsible for providing technical leadership and advice to the management and board as it relates to the areas of risk management, financial planning, catastrophe modelling and insurance placement. The CRMO provides technical input and review and acts as an independent evaluator to the work of two of CCRIF's main service providers – the Risk Management Specialist and the Placement Broker. Dr. Spranger has worked with leading reinsurance firms, a leading reinsurance broker, and catastrophe modelling firms in Asia, Latin America, and Europe.

### Central America SP Management Committee

The Central America Segregated Portfolio (CA SP) was established in 2015, when CCRIF and COSEFIN signed a Memorandum of Understanding to enable Central American countries to formally join the Facility. CCRIF provides tropical cyclone, earthquake and excess rainfall policies to Central American members through the CA SP. Over the policy year, the CA SP Management Committee, which is responsible for the operation of the SP, met regularly to address matters relating to the SP such as participation of Central American countries in the Facility, pricing and terms of coverage, risk transfer strategy, investment guidelines and procurement of advisory and other services.

### Contribution to Strategic Objectives



In March 2019, the CCRIF Board of Directors and CEO met with members of the CA SP Management Committee in Bermuda. At this meeting, discussions focused on strategies to expand membership in Central America and new models and products being developed, which may be of particular interest to countries in that region such as the excess rainfall runoff model.



L-R: CEO Isaac Anthony, CA SP Management Committee members Suzanne Corona and Tim Nielander, Deputy Chairperson of CCRIF Desirée Cherebin, board member Faye Hardy, Chairman Timothy Antoine, board members Sandra Bailey and Ken Blakeley, and CA SP Management Committee member Dario Luna

## Reporting on the Use of Payouts

CCRIF has always requested recipient governments to provide reports on their use of payouts received after a policy was triggered following a natural disaster. Countries have used their payouts for a variety of purposes, including immediate recovery and repair activities; providing aid to affected persons; stabilizing facilities such as water treatment plants; repairing critical infrastructure such as roads, drains and bridges; investing in risk mitigation activities to increase resilience against future natural hazards; and paying salaries of critical government employees such as those in health care as well as first responders.

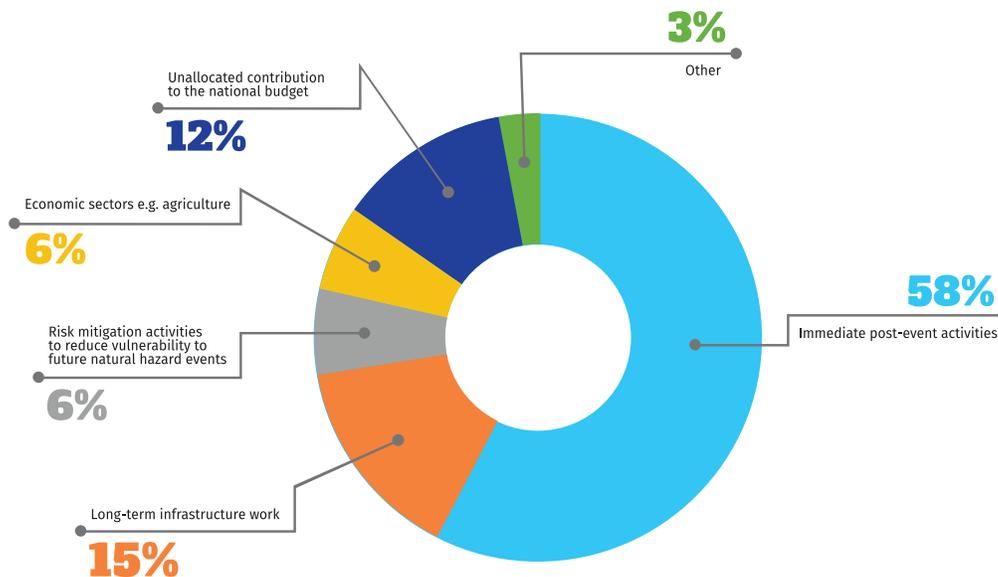
## Contribution to Strategic Objectives

INNOVATION AND RESPONSIVE  
PARAMETRIC PRODUCTS

**S01**

CORPORATE  
GOVERNANCE

**S04**



In September 2018, this reporting requirement was formalized when countries' Participation Agreements were amended to include requirements to submit a report using a specified format within six months of the payout. This requirement is in keeping with international trends in transparency and accountability. Also, knowing how payouts are used allows CCRIF to contribute to efforts being undertaken at the global level towards ensuring that access to climate risk insurance, either directly or indirectly, will reach the 400 million mark by 2020 – an outcome of the G-7 meeting in 2015 which called for global action to support efforts by vulnerable developing countries to manage climate change-related disaster risk through the provision of insurance as a key element of advancing the resilience agenda.

The decision on the use of payout funds remains with the recipient governments, which determine the best use based on the needs of the country following a natural disaster.

**CCRIF's internal calculations show that the approximate number of beneficiaries from payouts up to the end of 2017/18 is in the range of 2.5 million persons – with these benefits being both direct and indirect.**

## Donor Support and Capitalization

In December 2018, the German Federal Ministry of Economic Cooperation and Development (BMZ), through KfW, contributed €15 million to support the continued expansion of CCRIF into Central America. The contribution from KfW was channeled through the World Bank-administered Central America and Caribbean Catastrophe Risk Insurance Program (CACCRIP) multi-donor trust fund, becoming the biggest contribution from a single donor to the Program. This new funding for the CACCRIP was targeted at continuing to improve the affordability of high-quality sovereign catastrophe risk transfer associated with earthquakes and climate risks for COSEFIN member countries participating in CCRIF. The funding also was to be used to enhance the capacity of Ministries of Finance to develop and implement disaster risk financing and insurance strategies. The CACCRIP also supports activities in Caribbean Community (CARICOM) countries with similar objectives.

Also, in April 2019, Ireland's Department of Foreign Affairs and Trade contributed €1 million to CCRIF to support the development of a public utilities product as well as efforts to increase coverage levels and broader utilization of CCRIF's products by its members as part of a wider disaster risk management plan.

This increased support and engagement is part of efforts from donors and the international community to address increasing disaster risks by supporting insurance mechanisms that provide rapid payouts to countries in the aftermath of a natural disaster.

## Contribution to Strategic Objectives

FINANCIAL  
SUSTAINABILITY

**S03**

SCALING UP

**S06**



## CCRIF DONORS

### 2007 – INITIAL CAPITALIZATION

- World Bank
- Japan
- Canada
- European Union
- United Kingdom
- Ireland
- Bermuda
- France
- Caribbean Development Bank
- Member governments

### 2014 – FOR SCALING UP OF CCRIF

- Canada (Global Affairs Canada)
- United States (Department of the Treasury)
- European Union (European Commission)
- Germany (BMZ and KfW)
- Mexico, through the Caribbean Development Bank
- Ireland

# Enhancing Member Relations and Stakeholder Engagement



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## Enhancing Member Relations and Stakeholder Engagement

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Enhancing member relations and stakeholder engagement is a key pillar of CCRIF's strategic framework and fundamental to its operating principles. Stakeholder engagement underpinned by participatory processes is critical for building trust and also for advancing organizational objectives. Key activities undertaken during the policy year to strengthen our relations with our members, stakeholders and the general public in our member countries include:

- Engaging with member governments to discuss their policies and policy options as part of the annual policy renewal road show
- Meeting with member governments and other stakeholders on the margins of the quarterly board meetings and other meetings
- Hosting the second CCRIF Online Policy Forum
- Developing a range of developmental communication products and tools to assist members and other stakeholders to better understand the products and services that CCRIF provides
- Providing tools to members for managing hazard risks
- Delivering the CCRIF Training Programme to member governments
- Providing support to member governments for disaster risk reduction projects

### Annual Policy Renewal Road Show

Each year as part of its stakeholder engagement strategy and member outreach, CCRIF meets and engages with all member governments to discuss the renewal of their parametric insurance policies. The meetings provide an opportunity for countries – and in particular technocrats from the ministries of finance, disaster management agencies, national meteorological offices among others – to discuss the details of coverage levels, policy options and discounts on offer for the policy year.

Discussions also focus on new products and developments within the Facility. These meetings also provide an opportunity to address any issues the country may have and serve as a mechanism for building the capacity of members in the areas of disaster risk financing, with specific emphasis on parametric insurance. From March to May 2019, the CCRIF team led by the CEO conducted 14 meetings with member governments of the Caribbean. Country-specific briefs were produced for each country.

Prior to its policy renewal meeting with the Government of The Bahamas, the CCRIF team provided a short capacity building session with officials of the Ministry of Finance, the Meteorological Services and the National Emergency Management Agency on financial protection strategies and the relationship between CCRIF's parametric insurance products and other traditional/indemnity insurance as well as an introduction to CCRIF new models and policy features.

### Contribution to Strategic Objectives

INNOVATION AND RESPONSIVE  
PARAMETRIC PRODUCTS

S01

MEMBER RELATIONS  
AND ENGAGEMENT

S05



CCRIF Policy Renewal Meeting in Trinidad

For Central America, CCRIF met with stakeholders in member countries Nicaragua and Panama, as well as prospective members El Salvador and Guatemala. A workshop on disaster risk financing and CCRIF parametric insurance products also was held in Mexico City for technocrats within the Government of Guatemala.

### Engagement with Member Governments and other Stakeholders

As part of its stakeholder engagement strategy, CCRIF undertakes missions to countries to engage with stakeholders and there also is a new thrust in which the board and management meet with a country once per quarter during its board meeting.

### Contribution to Strategic Objectives

MEMBER RELATIONS  
AND ENGAGEMENT

S05

Members of the CCRIF board and executive management met with the Government of Bermuda twice during this policy year. Bermuda is one of the original members of CCRIF and also was a donor to the multi-donor trust fund established for the capitalization of CCRIF in 2007. Discussions focused on the importance of disaster risk financing, the performance of CCRIF over the years, payouts made to members and how these payouts provide a mechanism to financially protect economies when they face a natural disaster.

In February 2019, CCRIF CEO, Mr. Isaac Anthony met with the Premier of Bermuda Hon. E. David Burt, Minister of Finance Hon. Curtis Dickinson, and Financial Secretary Mr. Anthony Manders and during the CCRIF board meeting in March 2019, the CCRIF Board engaged in a courtesy call with the Deputy Minister of Finance Wayne Furbert and other officials of the Finance Ministry in Bermuda.



L-R: Minister of Finance Hon. Curtis Dickinson, CCRIF CEO Mr. Isaac Anthony and Premier Hon. E. David Burt



L-R: CCRIF board members Faye Hardy and Sandra Bailey, CCRIF Chairman Timothy Antoine, Junior Minister of Finance Wayne Furbert, CCRIF Deputy Chairperson Desirée Cherebin, and CCRIF Chief Executive Officer Isaac Anthony

During 2018/19, the CCRIF board, management and team took the opportunity to meet with past scholarship recipients and interns, while they were engaged in their professional capacity. These young persons shared with CCRIF what they are currently doing and how the scholarships and/or internships benefited their current career pathways.



L-R: CCRIF CEO Mr. Isaac Anthony, CCRIF scholarship recipient Mr. Cory George, Mr. Lloyd Lynch – SRC Research Fellow, and Dr. Ilias Papadopoulos - Engineering Seismologist at SRC and Cory's supervisor

CCRIF CEO Isaac Anthony met with CCRIF scholarship recipient, Cory George during the policy renewal meeting in Trinidad. Mr. George received a scholarship of US\$40,000 from CCRIF to pursue a master's degree in Earthquake Engineering and Disaster Management at University College London. On completion of his Masters he returned to his workplace, the UWI Seismic Research Centre (SRC).



L-R: CCRIF CEO Isaac Anthony, Yinka Jagbir-Garcia, CCRIF Deputy Chairperson Desirée Cherebin, CCRIF Board Member Faye Hardy, Julian McBarnette

CCRIF CEO and board members met with former CCRIF interns Yinka Jagbir-Garcia and Julian McBarnette at the CCRIF Technical Models Workshop held in March 2019 in Barbados. Ms. Jagbir-Garcia was representing CARICAD at the workshop as part of her internship. Mr. McBarnette was contracted to CDB at the end of his internship in 2015 and was attending the workshop as a representative of the Bank.



L-R: CCRIF CEO Isaac Anthony, intern Peta-Gay Harris, Deputy Chairperson Desirée Cherebin, and CDEMA Executive Director Ronald Jackson

In October 2018, CCRIF Deputy Chairperson, Desirée Cherebin and CEO Isaac Anthony, met with CCRIF intern Peta-Gay Harris from Jamaica who was assigned to the Caribbean Disaster and Emergency Management Agency (CDEMA). Ms. Harris assisted CDEMA with creating baseline maps for each of the 18 CDEMA Participating States and assisted the team during Hurricane Isaac and Tropical Storm Kirk with the development of situation awareness maps and pre-impact data analysis.



CCRIF Chairman Timothy Antoine, Deputy Chairperson Desirée Cherebin and CEO Isaac Anthony met with some of the recipients of the 2018 CCRIF-UWI scholarships – and UWI administrator – and some of the 2018 interns placed in Jamaica. This meeting took place on the margins of the CCRIF board meetings in September 2018.



### CCRIF Online Policy Forum

In January 2019, CCRIF held the second Online Policy Forum which brought together permanent secretaries and senior officials from ministries of finance in member countries. The focus of this meeting was on the scaling up of CCRIF, the new CCRIF models (SPHERA, XSR 2.5, drought) which would underpin the 2019/20 CCRIF policies as well as the policy renewal exercise and proposed amendments to members' Participation Agreements, which now includes the requirement for more formal reporting on how countries use their payouts. The online forum provides a unique space for officials to engage in open and frank discussion with CCRIF and among colleagues from other member countries.

### Contribution to Strategic Objectives

MEMBER RELATIONS  
AND ENGAGEMENT

S05

## Communications – A Key Tool for Member Engagement and for Sharing the CCRIF Story

CCRIF engages in a range of developmental communication activities as a means of strengthening the Facility's relationship with its members and key stakeholders towards supporting better understanding of its products and services. Members of the CCRIF board, executive management and team interact with member governments and other stakeholders through face-to-face and online meetings and workshops, participation in regional and international conferences and email communication among others.

Also, CCRIF utilizes social media channels (Twitter, Facebook, YouTube, LinkedIn and Instagram) as well as its website as key tools for information sharing. The Facility also produces and disseminates a range of publications to support stakeholder engagement. To amplify CCRIF's message, the Facility interacts with members of the press throughout the Caribbean and also with international media, including those that focus on insurance and finance.

In support of our current and potential members from Central America, CCRIF includes communication in Spanish, for example through Spanish versions of all new publications and press releases and facilitating multi-language access on the CCRIF website.

### Publications and Media

CCRIF launched its monthly online newsletter CCRIF E-News in September 2018. Eight newsletters were produced over the policy year. The newsletter allows the Facility to share with its members and other regional and international stakeholders updates on CCRIF activities and its operations. It also provides information to stakeholders on emerging opportunities such as scholarships and internship programmes. It provides an avenue for both long-standing and new stakeholders as well as the press and general public to be fully informed of the range of activities in which CCRIF is involved and to build their capacity around disaster risk financing, parametric insurance and other topical issues.

### Contribution to Strategic Objectives

MEMBER RELATIONS  
AND ENGAGEMENT

S05

STRATEGIC  
PARTNERSHIPS

S07



[www.ccrif.org](http://www.ccrif.org)



[ccrif.spc](https://www.facebook.com/ccrif.spc)



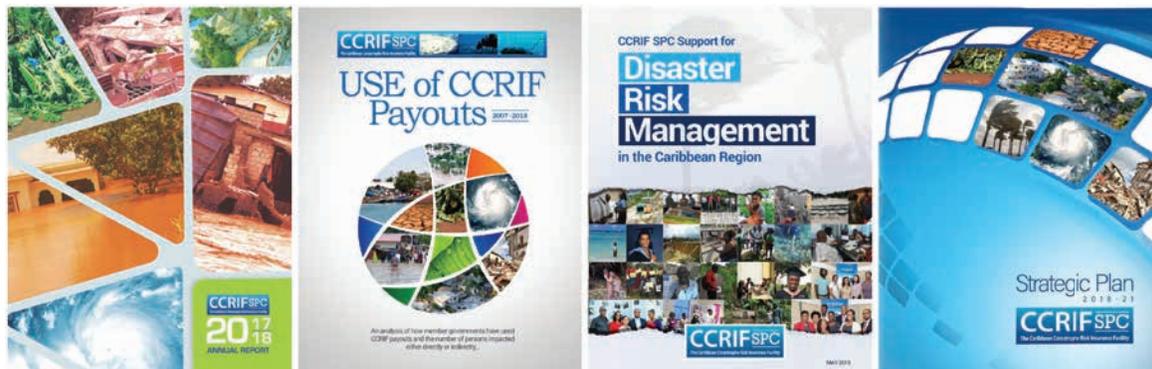
[pr@ccrif.org](mailto:pr@ccrif.org)



[@ccrif\\_pr](https://twitter.com/ccrif_pr)



CCRIF regularly develops and disseminates publications to its stakeholders to facilitate better understanding of CCRIF and its products and services as well as issues related to disaster risk financing and management, social protection, climate change adaptation and sustainable development.



During the 2018/19 policy year, CCRIF produced over 30 publications including:

- *CCRIF Annual Report 2017-2018*
- *Use of CCRIF Payouts 2007-2018*
- *CCRIF Support for Disaster Risk Management in the Caribbean*
- *CCRIF Strategic Plan 2018-21*
- *Social Protection for the Vulnerable in the Face of a Changing Climate...Weather-based insurance and microinsurance as a component of social protection strategies in the Caribbean (draft)*
- *CCRIF Journey through the Years 2007-2018*
- *Country briefings for each member country for policy renewal meetings (available only to specific country)*
- *CCRIF Training Manual titled “Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and Economic Policy” for 7 member countries: TCI, Belize, Cayman, Dominica, Montserrat, Antigua, Barbados*

CCRIF engages with the Caribbean and international media to raise their awareness about CCRIF and its products and services. CCRIF accomplishes this through regularly hosting media events and issuing press releases. CCRIF issued 10 press releases during the 2018/19 policy year, which generated articles on key issues including the appointment of Mr. Timothy Antoine as the new CCRIF Chairman, new CCRIF member countries that joined in 2018, the payouts made by CCRIF to Barbados and Trinidad & Tobago, and CCRIF’s scholarship and internship programmes.

### Conferences, Workshops and Meetings

Members of the CCRIF team continued to participate in regional and international conferences, workshops and meetings at the request of regional partners, donors and other interested organizations. During the policy year, the team participated in over 20 conferences and workshops to share information about CCRIF and its role in disaster risk financing and also to discuss linkages among disaster risk financing, fiscal and economic policies, social protection and sustainable development.



The CEO's presentation focused on CCRIF as a best practice example within the session on "Financial Solutions for Disaster Risk Management".

For example, CEO Isaac Anthony participated in the IMF, IDB, World Bank "Building Resilience to Disasters and Climate Change" High-Level Conference held at the IMF Headquarters in Washington DC on November 26, 2018. The Conference brought together key stakeholders to explore incentives to shift the focus of policies towards building resilience and innovative disaster risk financing policies and instruments that would help in this regard.

Other events attended by representatives of CCRIF in 2018-19 included:

- 5th Meeting of the OECS Council of Ministers of Environmental Sustainability – Martinique
- Regional Forum: Towards a more Resilient Central America – Panama
- Forum on Financial Protection from Natural Disasters in Central Asia – Kazakhstan
- Caribbean OCTs Resilience Summit – Sint Maarten
- EU and the Americas Conference, "An Inclusive and Encompassing Relationship" – Miami, USA
- 5th Global Biennial Conference on Small States – Samoa
- Jamaica Stock Exchange international seminar "Developing the Elements of a Disaster Risk Financing Strategy"
- World Bank/IMF Spring Meetings – Washington, DC USA

### Support for Regional Conferences

CCRIF provided sponsorship of US\$15,000 for the Understanding Risk Caribbean Conference held in Barbados during 27-31 May 2019. The conference, with the theme "From Risk to Resilience: a Foundation for Action", was hosted by the World Bank Group, CDEMA, GFDRR, European Union, and the Government of Barbados. Members of the CCRIF board, management and team participated in this 5-day conference and engaged participants in a wide range of activities designed to raise awareness of CCRIF and its products and services as well as the importance of CCRIF as a financial protection strategy and a cost-effective way to pre-finance short-term liquidity to begin recovery efforts after a catastrophe event.

### Contribution to Strategic Objectives

MEMBER RELATIONS  
AND ENGAGEMENT

**S05**

STRATEGIC  
PARTNERSHIPS

**S07**





Facilitator Elizabeth Emanuel (L) and Panellists at the CCRIF Technical Session (L-R): Isaac Anthony, Chief Executive Officer, CCRIF SPC; Simon Young, Senior Advisor in the Capital, Science & Policy Practice at Willis Towers Watson; Paul Saunders, DRM consultant at the Caribbean Development Bank; Cointha Thomas, Permanent Secretary in the Department of Finance, Economic Growth and Job Creation, Saint Lucia; and Rosamund Edwards, Financial Secretary, Ministry of Finance, Commonwealth of Dominica

CCRIF participated in the following activities at the conference:

- Presenting in the Ignite Session after the Opening Ceremony in which speakers spoke about technical session they were hosting
- Hosting a technical session – an informal fireside chat panel discussion titled, *CCRIF as a Working and Mature Example of a Financial Protection Strategy for Small Island States*
- Participation in the Partnership Showcase, a 15-minute interview feature that allowed open discussion about CCRIF and its products and services, as well as the importance of financial protection strategies such as CCRIF
- Participation by the CEO as a panellist in a Technical Session titled *The Resilience Imperative: Charting a Caribbean Development Pathway in a Challenging Fiscal Environment* hosted by CDEMA
- Participation by the CEO in a training workshop titled *Disaster Risk Financing in Overseas Countries and Territories*
- Participation by the CEO in the launch of EU Regional Resilience Facility
- Showcasing an exhibition booth

### Tools for Monitoring and Analyzing Hazard Events

CCRIF has provided access for its members to its Real-Time Forecasting System (RTFS) since 2011. The RTFS is a storm forecasting tool which provides users with real-time hurricane hazard and impact information based on forecasted tracks from the United States National Hurricane Center (NHC). It enables members of CCRIF to access real-time estimates of the expected hazard levels and impacts on population and infrastructure for all tropical cyclones during the hurricane season. The RTFS also provides additional information that supports the NHC forecasts. This includes wind, wave and storm surge footprints; impacts on airports, ports and buildings; and damage estimates. During the 2018 Atlantic Hurricane Season, CCRIF provided access to approximately 400 users.

#### Contribution to Strategic Objectives



Most users were from disaster management or meteorological offices in member countries. Regional organizations such as the Caribbean Institute of Meteorology and Hydrology and Caribbean Disaster and Emergency Management Agency also are provided with access and use the data to prepare hurricane advisories for countries in the region.

The RTFS is based on the MPRES model for tropical cyclones, which was used for the last time in 2018/19. During this year, CCRIF revised the RTFS to use the new SPHERA model for tropical cyclones – which underpins the TC policies. Additionally, the updated RTFS will be incorporated into a more comprehensive application, called the Web Monitoring Application (WeMAP), which also will include monitoring tools for current tropical cyclones, as well as earthquakes and rain events. WeMAP will be made available to member governments at the start of the 2019/20 policy year which begins in June.

### The Integrated Sovereign Risk Management Project

CCRIF and the Caribbean Development Bank (CDB) are collaborating on the implementation of the Integrated Sovereign Risk Management project. It is intended to facilitate increased resilience of countries in the region, by enhancing the capacity of governments to take a portfolio view of risks and include all risk categories – technological, economic, natural, geopolitical and social risks – and their interdependence.

#### Contribution to Strategic Objectives



#### ECONOMIC RISKS

- Food price volatility
- Oil and gas spikes
- Global fiscal crises
- Underinvestment in infrastructure

#### GEOPOLITICAL RISKS

- International terrorism
- Transnational crime and corruption
- Global governance gaps
- Conflicts between countries

#### ENVIRONMENTAL RISKS

- Climate change impacts
- Drought and desertification
- Biodiversity loss
- Loss of freshwater
- Air pollution

#### SOCIETAL RISKS

- Pandemics
- Infectious diseases (e.g. Ebola, H1N1 etc.)
- Chronic diseases (e.g. diseases of the circulatory system, cancers etc.)
- Migration
- Aging populations

#### TECHNOLOGICAL RISKS

- Data fraud/loss
- Emergence of nanotechnology risks

During the policy year, three studies were produced: A Situational Analysis, a Country Comparative Analysis or International Best Practices Study and a Gap Analysis. These studies are intended to:

- Provide guidance on how the institutionalization of country risk management in the region should be pursued and further advanced
- Determine the possible changes in legal and regulatory frameworks across countries that may be required to advance country risk management and introduce country risk coordinators
- Assess the requirements for developing all-hazards policy frameworks for individual countries of the region as well as a regional all-hazards policy framework
- Define the various processes for undertaking national and regional risk assessments as part of the mechanism for broadening the risk governance framework
- Outline current initiatives being undertaken within countries that can be viewed as best practices and models for other countries in the region.

The results of the three analyses will inform a regional conference and workshop to be held in the 2019/20 policy year, the development of a policy brief to advance discussions within governments, and the development of the integrated risk management framework for use by all Caribbean countries for the purposes of managing the complex and comprehensive multi-area risk portfolios that countries are faced with.

### Support to Member Governments to Implement Disaster Risk Reduction Projects

The CCRIF Board often provides special assistance for post-event recovery and rehabilitation efforts or targeted technical assistance and support to member governments, following the occurrence of natural hazard events that have affected these countries. After the events, CCRIF engages in discussion with government officials and other key stakeholders to determine the most appropriate project(s) with a view to supporting immediate recovery efforts, building capacity and improving disaster and climate change resilience at the national or community level. During this policy year, there was one active grant to a member government.

#### Contribution to Strategic Objectives

RESILIENCE	<b>S02</b>
MEMBER RELATIONS AND ENGAGEMENT	<b>S05</b>

### Assistance to the Government of Belize – Strengthening the Country’s Rainfall Data Collection

In January 2017, CCRIF provided a US\$100,000 grant to the Government of Belize, which was used to purchase 30 automatic weather stations to provide the Meteorological Service with access to real-time rainfall data. Over 50 per cent of these weather stations were installed by the end of this policy year. Meteorology technicians were trained on how to properly set up the stations, configure the sensors and data-loggers to measure and transmit data to the Meteorological Office. The instruments and related training will improve the Government’s ability to monitor, record and forecast rainfall within Belize and better prepare the country for hydrometeorological events.



## CCRIF's Flagship Training Programme

CCRIF continued the delivery of its training programme "Understanding Disaster Risk Financing, CCRIF Parametric Policies and the Relationship with Fiscal and Economic Policy" to its member governments. The main objective of the programme is to assist countries and specifically finance, disaster management, environmental management and meteorology officers and other key technocrats to better understand ex-ante disaster risk financing and various tools necessary to financially protect the state; CCRIF's parametric insurance policies and the models and country risk profiles that underpin these policies; and the linkages among disaster risk financing and fiscal and economic policies and national development in general.

## Contribution to Strategic Objectives

INNOVATION AND RESPONSIVE  
PARAMETRIC PRODUCTS

S01

RESILIENCE

S02

MEMBER RELATIONS  
AND ENGAGEMENT

S05

During the policy year 2018/19, CCRIF delivered the 2-day training programme to seven Caribbean member countries: Turks & Caicos Islands, Belize, Cayman Islands, Dominica, Montserrat, Antigua & Barbuda, and Barbados. All CCRIF member countries will have the benefit of this training programme during the coming year. Also the intent is for the programme to be institutionalized as a course at the University of the West Indies at the Master's level.

Since the training programme was launched in 2016, 200 persons from 11 member countries have been trained. Participants have included representatives from ministries of finance and the disaster management and meteorology agencies – as well as other ministries and agencies responsible for areas including water resource management, planning, agriculture, environmental management, infrastructure and works, climate change and sustainable development.



# Building Resilience

Support to the Disaster Risk Management  
and Climate Change Adaptation Agenda



# Building Resilience

## Support to the Disaster Risk Management and Climate Change Adaptation Agenda



Under its Technical Assistance (TA) Programme, CCRIF supports member countries, regional organizations, non-governmental organizations and academic institutions to develop and implement disaster risk management projects and programmes and also implements capacity building initiatives. Since the launch of the Technical Assistance Programme in 2010, CCRIF has provided US\$3 million to support disaster risk management efforts in the region.

The TA Programme consists of three components and provides an ongoing mechanism for grant support within the Caribbean region for capacity building initiatives and the development and implementation of projects to improve the effectiveness of disaster risk management.



### COMPONENT 1: Scholarship/Professional Development Programme

Through two scholarship programmes, CCRIF provides scholarships to Caribbean nationals to pursue studies in areas related to disaster risk management at the University of the West Indies and universities in the UK and USA. Since 2010, CCRIF has awarded 77 scholarships totalling over US\$1.1 million.

Under the **CCRIF-UWI Scholarship Programme**, CCRIF awarded 4 postgraduate and 8 undergraduate scholarships to students at the University of the West Indies for the 2018/19 academic year. Postgraduate scholarships are US\$11,000 each and undergraduate scholarships are a total of US\$8,000 for students' second and third years of study.

In the 2018/19 policy year, CCRIF awarded 3 postgraduate scholarships under the **CCRIF Scholarship Programme** to:

- Faustina Wiggins of Guyana for an MS in Environment & Development at the University of Reading (US\$40,000)
- Christal Benjamin of Trinidad & Tobago for an MA in Disasters Adaptation & Development at King’s College London (US\$23,000)
- Trisha Miller of Grenada for an MS in Applied Meteorology at Mississippi State University (US\$17,000)

CCRIF’s **Regional Internship Programme** provides opportunities for recent graduates who have studied in the areas of disaster risk management, environmental management, actuarial science, geography, climate studies and other related areas to be assigned to national and regional organizations where their educational experience can be enhanced through practical work assignments.

In 2018, CCRIF placed 19 interns from 6 Caribbean countries at the following national and regional organizations: CDEMA, OECS Commission, CARICOM Secretariat, ACS, CARICAD, CIMH, and UWI as well as national disaster management and meteorology agencies in Jamaica, Trinidad & Tobago, St. Vincent & the Grenadines, The Bahamas and Barbados.

SUMMARY OF INTERN PLACEMENTS 2015-2019			
	# of Interns	# of Host Organizations	Expenditure (US\$)
2015	18	10	<b>73,962</b>
2016	25	16	<b>73,795</b>
2017	23	15	<b>63,043</b>
2018	19	16	<b>56,287</b>
2019	18	12	<b>55,000</b>
<b>Total</b>	<b>103</b>	<b>28</b>	<b>322,087</b>

### Snapshot of CCRIF Interns at Work



Hannah Lochlan of Trinidad & Tobago was placed at CERMES in Barbados. Here she is interviewing a farmer for a project that will contribute to sustainable farming practices



Brendan Taylor of Barbados was placed at CDEMA in his home country where he conducted radio communications tests with disaster offices across the region



Jevan Howard of Barbados did his internship at NEMA in St. Vincent & the Grenadines, where he assisted with the development of a National Damage Assessment Policy, Plan and Procedures

## Feedback from interns illustrated many benefits of the internship programme, including:

*Application of academic studies in a work setting*

*Improved skills in GIS, mapping, database design, research, data collection and analysis*

*Improved ability to work in a team setting*

*Exposure to experts in the field*

*How to prioritize tasks and meet deadlines in a high stress environment*

*Exposure to diverse stakeholders (e.g. farmers, government officials)*

*Encouragement to "think outside the box" and at a higher level than previously required, leading to increased confidence*

*Knowledge of new cultures*

*Positive feeling of having contributed to the work of host organization and to the region*



## COMPONENT 2: Regional Knowledge Building

CCRIF continues to develop and strengthen partnerships with key entities in the region through signing of memoranda of understanding and the development and implementation of related programmes geared towards improving disaster risk management, increasing climate resilience and reducing vulnerability. These work plans are typically funded by CCRIF. During the 2018/19 policy year, CCRIF signed an MOU with the Caribbean Regional Fisheries Mechanism (CRFM) and also began discussion with the Caribbean Centre for Development Administration (CARICAD) to develop an MOU.

CCRIF HAS PARTNERSHIPS THROUGH MOUS WITH:	
• Association of Caribbean States – ACS	• Caribbean Regional Fisheries Mechanism – CRFM
• Caribbean Community Climate Change Centre – CCCCC	• Organisation of Eastern Caribbean States – OECS
• Caribbean Disaster Emergency Management Agency – CDEMA	• United Nations Economic Commission for Latin America and the Caribbean – ECLAC
• Caribbean Institute for Meteorology and Hydrology – CIMH	• University of the West Indies – UWI

### Caribbean Regional Fisheries Mechanism

In March 2019, CCRIF and the Caribbean Regional Fisheries Mechanism (CRFM) signed a memorandum of understanding to formalize collaboration around the Caribbean Oceans and Aquaculture Sustainability Facility (COAST) initiative, which will help to reduce the risk that climate change poses to the fisheries sector.



Specifically, the MOU will lead to:

- The finalization of the sovereign insurance COAST product for the fisheries and aquaculture sectors in the Caribbean and the subsequent introduction of the product in select Caribbean countries
- The rollout of the COAST product across the Caribbean including *inter alia* communication to improve awareness and understanding among stakeholders, and training for government officials and professionals in the fisheries and aquaculture sectors
- Continual support and promotion of the COAST product within CRFM Member States
- Exploration and promotion of microinsurance products for small enterprises, fishers and other persons in the fisheries and aquaculture industries
- Promotion of climate-resilient fishing, fish farming and resource management practices among CRFM Member States

## Association of Caribbean States (ACS)

CCRIF attended the 26th meeting of the ACS Special Committee for Disaster Risk Reduction in June 2018 in Trinidad & Tobago and delivered a presentation on CCRIF and its products and programmes, including a focus on the Livelihood Protection Policy – the microinsurance product developed under the CRAIC project. This interaction supported the aim of the MOU to promote effective disaster risk reduction throughout the Caribbean and Central America regions as well as to raise awareness of the work of the entities among each stakeholder base.

## Caribbean Community Climate Change Centre (CCCC)

CCRIF has provided support to CCCC for the development of a Regional Framework for Achieving Development Resilient to Climate Change (2018-2028) in the Caribbean. The development of the framework was underpinned by country consultations which were completed during the policy year 2018/19. In the 2019/2020 policy year, CCCC will present the framework to CARICOM Heads of Government.



One of the country consultations undertaken by CCCC

## Caribbean Disaster Emergency Management Agency (CDEMA)

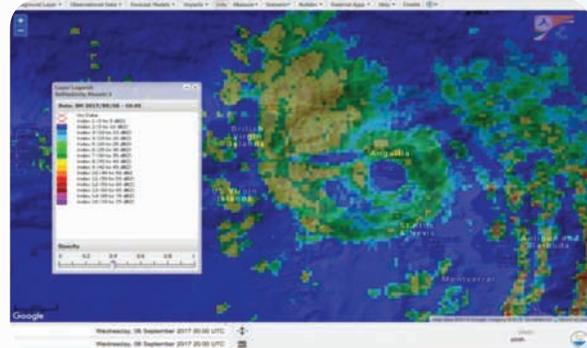
A new MOU was signed between CCRIF and CDEMA in May 2019 replacing the previous agreement which was signed in 2013. The MOU will support both the CDM Strategy and Results Framework for 2014-2024 and the CCRIF Strategic Plan 2018-21 as well as CARICOM's bold ambition of making the Caribbean the world's first climate-resilient zone. A work programme for 2019-20 was developed to operationalize the MOU and CCRIF will support CDEMA to undertake the following activities:

- Development of standardized building code templates and model legislation for facilitate countries in the region developing and implementing building codes as part of the regional resilience agenda
- Support for the 2019 CDM Conference (to be held in December 2019 in Sint Maarten)
- Strengthening the linkages between CDM and ex-ante risk financing through a range of capacity building activities and awareness raising initiatives

## Caribbean Institute for Meteorology and Hydrology (CIMH)

The 2016-2018 work plan under the MOU between CCRIF and CIMH focused on three main areas: collection of hydro-meteorological data and documentation of hydro-meteorological events; expansion of data, tools and products available on the Caribbean Dewetra Platform<sup>4</sup>; and capacity development to create a cadre of climate science professionals in the region.

Each year CCRIF and CIMH select two tropical cyclone or rainfall events to be analyzed from both a hydro-meteorological and impact/damage perspective. During 2018/19 the two events selected for analysis of the associated rainfall impacts were: Hurricane Irma and its impacts on Anguilla and Hurricane Maria and its impacts on St. Kitts & Nevis. These reports were prepared and the analyses are being used to validate CCRIF's XSR model.



From the report on Irma's impacts on Anguilla

<sup>4</sup>Maintained by the CIMH, the Caribbean Dewetra Platform is an online data fusion platform that integrates hazard data, socio-economic and vulnerability information in support of improved decision making within the disaster management community.

The Caribbean Dewetra platform was enhanced by including data from CCRIF’s Real-Time Forecasting System and other sources, and adding functionality, for example by including outputs from a climate monitoring tool developed by CIMH and modified under this work plan to provide additional layers such as geospatial maps in EPS format and enhanced Standardised Precipitation Index (SPI) calculations and maps.

Within the capacity development focus area, in July 2018 two professionals at CIMH – Mr. Shawn Boyce and Mr. Grahame Niles – participated in the ESRI Image Analysis with ArcGIS online course. They will integrate this training and the new knowledge into remote sensing applications at CIMH.

Also, CCRIF and CIMH are collaborating on an initiative aimed at the improvement of rainfall data collection across the region. The purpose of this initiative is to create more reliable systems to collect rainfall data, not only to inform national and regional disaster risk management programmes but also to support CCRIF’s Excess Rainfall model and product.

### Organisation of Eastern Caribbean States (OECS)

Through the MOU, CCRIF is supporting the OECS Commission in reducing vulnerabilities to natural hazards and climate change in OECS Member States. This year, the OECS produced two public service announcement videos promoting early warning systems in communities. These videos advise communities of some of the key actions that should be put in place before and during a potential natural disaster.



### United Nations Economic Commission for Latin America and the Caribbean (ECLAC)

CCRIF provided support to UNECLAC to enable the agency to build capacity in four countries in the region to conduct Damage and Loss Assessments (DaLAs), utilizing ECLAC’s DaLA methodology. During the period October 2018 to February 2019, the training was conducted in the Turks & Caicos Islands, Anguilla, The Bahamas and Trinidad & Tobago. CCRIF participated in the training by providing an introduction to CCRIF and its products and services.

CCRIF also supported ECLAC to host a seminar, titled “The modernization of the Energy Sector and the Enhancement of Resilience to Disaster and Climate Change in the Caribbean” in November 2018 in Trinidad. A paper produced for the seminar will support efforts by CCRIF SPC in the development of a parametric insurance product for public utilities, including electric utilities.



Participants at the DaLA workshop in The Bahamas

### COMPONENT 3: Support for Local Disaster Risk Reduction Initiatives

Launched in March 2015, the CCRIF Small Grants Programme provides financing for small disaster risk reduction projects in local communities by non-governmental organizations (NGOs), community-based organizations (CBOs), charity organizations and academic institutions across CCRIF's Caribbean member countries and/or CARICOM member countries. The programme provides funds of between US\$5,000 and US\$25,000 per project.

During this policy year, CCRIF awarded 5 new grants totalling US\$114,975:

Grant recipient/Country	Project	Grant Amount (US\$)
Urgence Rehabilitation & Development (URDev), Haiti	Project for reducing water vulnerability in the community of Boucan Richard in Gros-Morne	24,489
Groupe Encadré du Nord-Ouest (GAENO), Haiti	Reforestation project within remaining 8 watersheds in the lower North West Department - to build on a previous CCRIF-funded reforestation project in 4 communities in the North West Department	24,970
Fondation Amour de Dieu en Action (FADA), Haiti	Training and awareness raising about earthquake- and tropical cyclone-resilient construction	24,680
Humana People to People Belize (HPPB)	To increase farmers' capacity to reduce the effects of climate change on crops	25,000
Department of Geography, University of the West Indies, St. Augustine, Trinidad & Tobago	The role of quarries in flooding and water transmission under current and future climate change	15,836
<b>Total</b>		<b>114,975</b>

**To date CCRIF has provided 13 grants totalling over US\$300,000 to 7 NGOs and 2 departments of the University of the West Indies**

Including the new projects, CCRIF administered nine projects during 2018-19, four of which were completed during this period.

## Completed Small Grant Projects 2018/19

### Reforestation project within four watersheds in the lower North West Department, Groupe Encadré du Nord-Ouest (GAENO), Haiti

#### Activities implemented:

- 7,600 seedlings of climate-resilient species were planted in Jean Rabel, Baie de Henne, Mole Saint Nicolas and Bombardopolis, involving almost 200 students and community members, who also participated in training and climate awareness sessions.
- Four nurseries were created and are ready to provide the target communes seedlings for reforestation in the communes. Communities no longer have trouble finding seedlings to reforest their land.
- A workshop on climate change for the lower northwest was held. The focus was on how civil society organizations can take charge of environmental issues in their department and included discussions on the reforestation activities, Haiti's climate change policy, sources of funding for climate change projects including CCRIF's SGP, and the establishment and functioning of community environmental councils.



### Project for reducing water vulnerability in the community of Boucan Richard in Gros-Morne by rehabilitating the Derboyé catchment, Urgence Rehabilitation & Development (URDev), Haiti

#### Activities implemented:

- Training of 105 persons on methods for planting seedlings
- Planting of 2,500 seedlings covering an area of 5,625 m<sup>2</sup>
- Establishment of a management committee to facilitate tree maintenance

#### Reported impacts:

- The water source has been rehabilitated and is now able to provide access to clean drinking water for the community
- The Community now has the technical knowledge and capacity to maintain trees in a scientific and professional way.
- Increased vegetation cover around the drinking water source



## Douglas Castle Disaster Risk Management Project, Douglas Castle Production and Market Organization, Jamaica

Activities implemented:

- Development of a community disaster management plan for the Douglas Castle Community with the assistance of the Office of Disaster Preparedness and Management (Jamaica's national disaster management agency), involving extensive stakeholder consultations. The development of the plan involved the conduct of a vulnerability assessment as well as training for community members in disaster assessment, response and relief, preparation and shelter management. Drills also were conducted to demonstrate to community members how to respond to earthquakes, fires and tropical cyclones.



## Fond/Malgreoute River Reforestation and Riverbank Stabilization Project, People Empowering People (PEP), Saint Lucia

This project was designed to enable the establishment of low-cost and environmentally friendly riverbank protection along a segment of the Fond River.

Activities implemented:

- Reforestation of areas along the river
- Sensitization of farmers in the Fond watershed on good and sustainable agricultural practices.



A key success factor was the selection of the trees used in the reforestation activities. The Ministry of Agriculture advised that in addition to using forest trees such as Red and White Cedar, the community should also plant fruit and food trees such as breadfruit, mangoes, assorted citrus, gooseberry, soursop, among others, which would work just as well as the other plants for the riverbank and would also provide a source of food for the community, promoting food security as well as additional products to sell in the markets.

## Ongoing Small Grant Projects

### Conservation Agriculture for Climate Change Adaptation in the Caribbean, Department of Food Production, Faculty of Agriculture, UWI St Augustine, Trinidad & Tobago

This project was designed to improve the resilience of crop production systems to excess and intense rainfall. It examined the use of jab planters in reducing the susceptibility of the region's structurally weak expanding soils to erosion. Initial feedback from farmers indicated that this technology may not be suitable to the Caribbean as most crops are sown as seedlings. Therefore, the research aim was modified to examine the influence of soil texture and water content on the effectiveness of seedling transplanters.

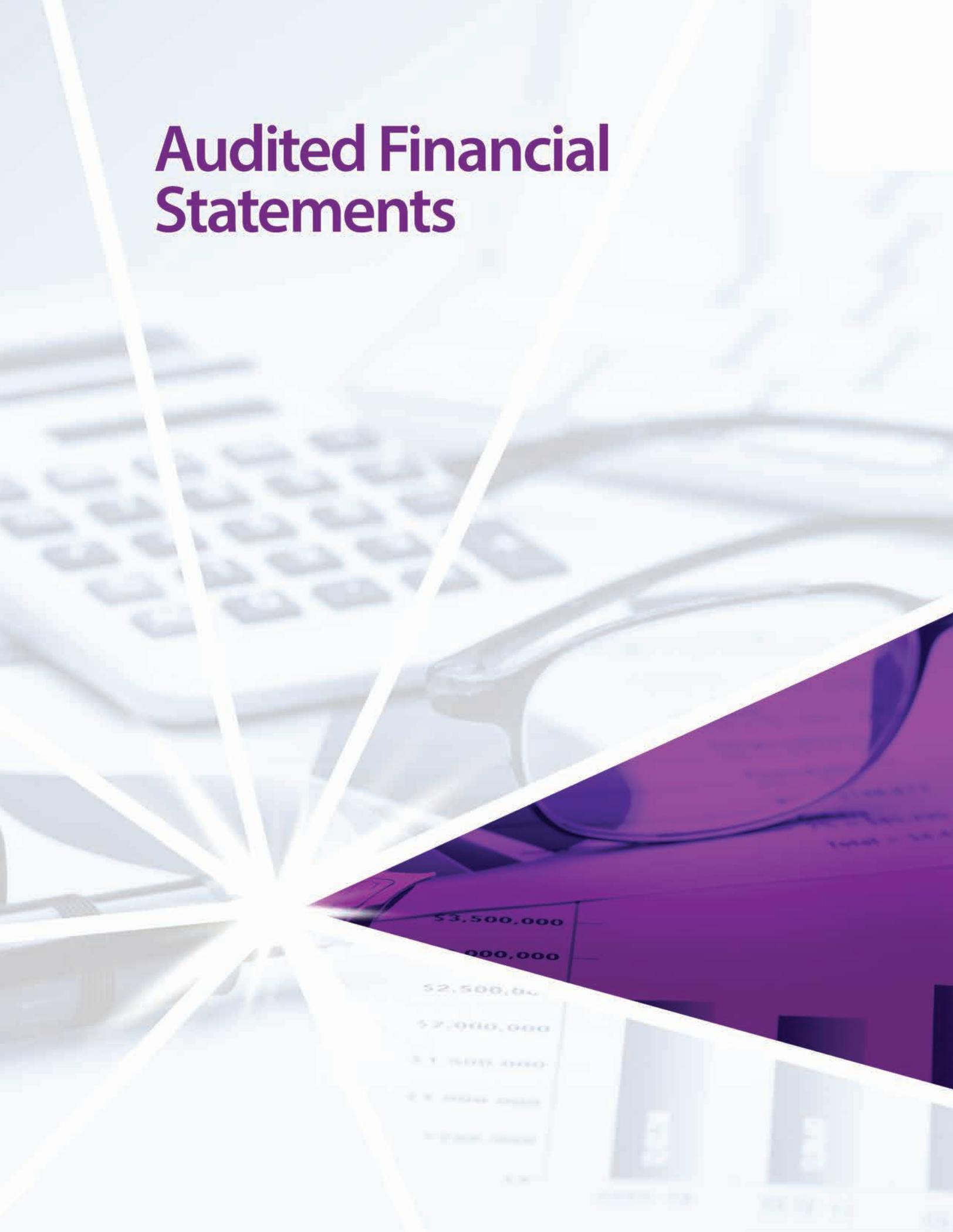


Activities completed during 2018-2019:

- Finalization of the methodology and management arrangements
- 4 site visits were conducted to delineate boundaries and set up the research experiments on soil quality

The next steps are to engage in soil characterization for verification of soil textural class in each site as well as land clearing, designation of experimental plots and sourcing of raw materials.

# Audited Financial Statements



# **CCRIF SPC**

**Financial Statements**  
**For the year ended May 31, 2019**  
(expressed in U.S. dollars)

# CCRIF SPC

## Financial Statements

For the year ended May 31, 2019

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## Independent auditor's report

### To the Board of Directors of CCRIF SPC (the "Company")

#### Our opinion

In our opinion, the financial statements on pages 3 – 31 present fairly, in all material respects, the financial position of the General Portfolio of CCRIF SPC (the "Company") and each of Caribbean EQ/TC SP, Caribbean XSR SP, Loan Portfolio Cover SP, Central America SP and COAST SP (each a segregated portfolio of CCRIF SPC) (each portfolio, including the General Portfolio, hereinafter the "Portfolio") as at May 31, 2019, and the results of each of their operations and each of their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### What we have audited

Each Portfolio's financial statements comprise:

- the Balance Sheet as at May 31, 2019;
- the Statement of Operations for the year then ended;
- the Statement of Changes in Shareholder's Equity for the year then ended;
- the Statement of Cash Flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

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#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Independence

We are independent of the Company and the Portfolio in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

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#### Other information

Management is responsible for the other information. The other information comprises the Supplemental Information presented on pages 32 – 36 (but does not include the financial statements and our auditor's report thereon).

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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#### Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for evaluating whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Portfolio's ability to continue as a going concern within one year after the date that the financial statements are issued, or available to be issued, and disclosing, as applicable, matters related to this evaluation unless the liquidation basis of accounting is being used by the Portfolio.

Those charged with governance are responsible for overseeing the Portfolio's financial reporting process.



## Independent auditor's report (continued)

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### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Portfolio's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Portfolio's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Portfolio to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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### Other matter

This report, including the opinion, has been prepared for and only for CCRIF SPC in accordance with the terms of our engagement letter and for no other purpose. We do not, in giving this opinion, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

A handwritten signature in cursive script that reads 'PricewaterhouseCoopers'.

September 19, 2019

# CCRIF SPC

## Balance Sheet

As at May 31, 2019

(expressed in U.S. dollars)

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>LPC SP</b>	<b>CA SP</b>	<b>Coast SP</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>ASSETS</b>						
Cash and cash equivalents (Note 4)	3,172,081	7,562,093	4,351,056	362,472	2,019,233	37,661
Investments, at fair value (Note 5)	44,662,035	51,096,002	18,719,041	5,098,012	4,019,445	-
Margin collateral for derivative instruments (Note 8)	(18,319)	58,742	10,216	(7,657)	-	-
Development costs (Note 15)	3,354,058	-	-	-	-	-
Accrued interest	323,402	458,024	181,075	50,921	31,973	-
Unrealized gains on futures contracts (Note 8)	101,274	363,036	135,617	41,000	-	-
Due from Donor Funds (Note 6)	16,473	-	-	-	1,463,151	-
Due from Core (Note 16)	-	965,166	-	-	-	-
Due from Segregated Portfolios (Note 16)	-	-	-	-	-	-
Prepaid expenses	11,334	-	22,501	-	-	-
<b>Total assets</b>	<b>51,622,338</b>	<b>60,503,063</b>	<b>23,419,506</b>	<b>5,544,748</b>	<b>7,533,802</b>	<b>37,661</b>
<b>LIABILITIES AND SHAREHOLDER'S EQUITY</b>						
<b>Liabilities</b>						
Accounts payable and accrued expenses (Note 12)	1,870,701	37,256	19,899	4,666	3,636	279
Due to Segregated Portfolios (Note 16)	965,166	-	-	-	-	-
Income from parametric insurance contracts received in advance	-	4,773,284	2,227,176	-	-	-
Participation fee deposits (Note 7)	-	3,487,499	-	-	-	-
<b>Total liabilities</b>	<b>2,835,867</b>	<b>8,298,039</b>	<b>2,247,075</b>	<b>4,666</b>	<b>3,636</b>	<b>279</b>
<b>Shareholder's equity</b>						
Share capital (Note 9)	1,000	-	-	-	-	-
Non-voting redeemable preference shares (Note 9)	-	1	1	1	1	-
Share premium (Note 9)	119,000	42,499,999	24,999,999	4,999,999	-	-
Retained earnings / (accumulated deficit)	48,666,471	9,705,024	(3,827,569)	540,082	7,530,165	37,382
<b>Total shareholder's equity</b>	<b>48,786,471</b>	<b>52,205,024</b>	<b>21,172,431</b>	<b>5,540,082</b>	<b>7,530,166</b>	<b>37,382</b>
<b>Total liabilities and shareholder's equity</b>	<b>51,622,338</b>	<b>60,503,063</b>	<b>23,419,506</b>	<b>5,544,748</b>	<b>7,533,802</b>	<b>37,661</b>

Approved for issuance on behalf of the Board of Directors of CCRIF SPC by:

Timothy Antoine  
Director

September 19, 2019  
Date

Saundra Bailey  
Director

September 19, 2019  
Date

The accompanying notes on pages 7 - 31 are an integral part of these financial statements.

(3)

# CCRIF SPC

## Statement of Operations

For the year ended May 31, 2019

(expressed in U.S. dollars)

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$	Coast SP \$
<b>Operating income</b>						
Income from parametric insurance contracts (Note 2)	-	27,096,695	8,860,628	-	2,800,000	-
Discounts awarded on parametric insurance contracts	-	(1,866,250)	-	-	-	-
Expenses on parametric reinsurance contracts (Note 2)	-	(12,159,844)	(3,041,329)	-	(1,570,643)	-
Net income on parametric contracts	-	13,070,601	5,819,299	-	1,229,357	-
Ceding commissions on parametric reinsurance contracts	-	1,312,265	61,001	-	123,148	-
Total operating income	-	14,382,866	5,880,300	-	1,352,505	-
<b>Operating expenses</b>						
Claims paid on parametric insurance contracts (Note 10)	-	91,438	8,347,850	-	-	-
Claims recovered under parametric reinsurance contracts (Note 10)	-	-	(647,850)	-	-	-
Brokerage and risk management specialist fees	470,693	258,328	-	-	38,697	-
Total operating expenses	470,693	349,766	7,700,000	-	38,697	-
Net operating income / (loss)	(470,693)	14,033,100	(1,819,700)	-	1,313,808	-
<b>Other income and expenses</b>						
Net investment income (Note 11)	1,954,618	2,112,843	837,936	255,034	168,136	-
Income from Donor Funds (Note 6)	-	-	200,000	-	2,063,151	-
Unrestricted grant funds (Note 6)	-	-	-	-	-	-
Amortization of development costs (Note 15)	(170,389)	-	-	-	-	-
Technical assistance expenses	(585,313)	-	-	-	-	-
Income from services (Note 12)	-	-	-	-	-	250,650
Monies received from grant funds	96,473	-	-	-	-	-
Munich Climate Initiative (MCII)	110,931	-	-	-	-	-
Participation Fee Income (Note 7)	-	10,669,376	275,000	-	-	-
Segregated portfolio rental fees	2,385,000	(1,500,000)	(400,000)	-	(485,000)	-
Segregated portfolio sub-licence fee	390,833	(95,000)	(87,189)	-	(208,644)	-
Administrative expenses (Note 13)	(1,668,165)	(209,912)	(133,131)	(1,671)	(75,572)	(213,268)
<b>Net income / (loss) for the year</b>	<b>2,043,295</b>	<b>25,010,407</b>	<b>(1,127,084)</b>	<b>253,363</b>	<b>2,775,879</b>	<b>37,382</b>

The accompanying notes on pages 7 - 31 are an integral part of these financial statements.

(4)

# CCRIF SPC

## Statement of Changes in Shareholder's Equity

For the ended May 31, 2019

(expressed in U.S. dollars)

	Share capital \$	Non-voting redeemable preference shares \$	Share premium \$	Retained earnings \$	Total \$
<b>Core</b>					
Balance at May 31, 2018	1,000	-	119,000	46,623,176	46,743,176
Net income for the year	-	-	-	2,043,295	2,043,295
Balance at May 31, 2019	1,000	-	119,000	48,666,471	48,786,471
<b>EQ/TC SP</b>					
Balance at May 31, 2018	-	1	42,499,999	(15,305,383)	27,194,617
Net income for the year	-	-	-	25,010,407	25,010,407
Balance at May 31, 2019	-	1	42,499,999	9,705,024	52,205,024
<b>XSR SP</b>					
Balance at May 31, 2018	-	1	24,999,999	(2,700,485)	22,299,515
Net loss for the year	-	-	-	(1,127,084)	(1,127,084)
Balance at May 31, 2019	-	1	24,999,999	(3,827,569)	21,172,431
<b>LPC SP</b>					
Balance at May 31, 2018	-	1	4,999,999	286,719	5,286,719
Net income for the year	-	-	-	253,363	253,363
Balance at May 31, 2019	-	1	4,999,999	540,082	5,540,082
<b>CA SP</b>					
Balance at May 31, 2018	-	1	-	4,754,286	4,754,287
Net income for the year	-	-	-	2,775,879	2,775,879
Balance at May 31, 2019	-	1	-	7,530,165	7,530,166
<b>Coast SP</b>					
Balance at May 31, 2018	-	-	-	-	-
Net income for the year	-	-	-	37,382	37,382
Balance at May 31, 2019	-	-	-	37,382	37,382

The accompanying notes on pages 7 - 31 are an integral part of these financial statements.

(5)

**CCRIF SPC**  
**Statement of Cash Flows**  
**For the ended May 31, 2019**

(expressed in U.S. dollars)

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>LPC SP</b>	<b>CA SP</b>	<b>Coast SP</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>Operating activities</b>						
Net income /(loss) for the year	2,043,295	25,010,407	(1,127,084)	253,363	2,775,879	37,382
Adjustments to reconcile net income/(loss) to net cash from operating activities:						
Adjustment for items not affecting cash:						
Change in fair value of investments	(183,099)	(628,168)	(232,385)	(66,325)	(109,827)	-
Net realized gains on investments	(389,912)	68,796	39,176	(885)	2,429	-
Change in unrealized gains on derivative investments	45,540	(1,257)	24,615	23,462	-	-
Amortisation of development cost	170,389	-	-	-	-	-
Trading securities:						
Purchase of securities and options	(13,162,694)	(47,991,452)	(18,834,004)	(3,036,763)	(4,783,632)	-
Proceeds from sale of securities and options	12,668,770	21,419,645	10,312,383	2,437,281	871,585	-
Change in derivatives margin collateral balance	(83,588)	(296,095)	(119,668)	(32,947)	-	-
Changes in assets and liabilities:						
Accrued interest	(23,874)	(246,872)	(75,007)	(7,240)	(31,973)	-
Amounts due from Donor Funds	(16,473)	-	-	-	(1,463,151)	-
Prepaid expenses	26,929	110,722	(22,111)	392	18,761	-
Accounts payable and accrued expenses	1,497,050	15,546	(79,287)	617	3,637	279
Income from parametric contracts received in advance	-	1,675,689	1,453,009	-	-	-
Participation fee deposits*	-	(9,454,376)	-	-	-	-
Due (from)/to Segregated Portfolio	(10,264,115)	(648,427)	648,427	-	-	-
Due (from)/to Core	-	35,230	7,182,940	-	3,045,945	-
Net cash provided by/(used in) operating activities	<u>(7,671,782)</u>	<u>(10,930,612)</u>	<u>(828,996)</u>	<u>(429,045)</u>	<u>329,653</u>	<u>37,661</u>
<b>Investing activities</b>						
Development costs	<u>(1,063,880)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net cash used in investing activities	<u>(1,063,880)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Net change in cash and cash equivalents</b>	<b>(8,735,662)</b>	<b>(10,930,612)</b>	<b>(828,996)</b>	<b>(429,045)</b>	<b>329,653</b>	<b>37,661</b>
<b>Cash and cash equivalents at the beginning of the year</b>	<b>11,907,743</b>	<b>18,492,705</b>	<b>5,180,052</b>	<b>791,517</b>	<b>1,689,580</b>	<b>-</b>
<b>Cash and cash equivalents at the end of year</b>	<b>3,172,081</b>	<b>7,562,093</b>	<b>4,351,056</b>	<b>362,472</b>	<b>2,019,233</b>	<b>37,661</b>
Interest and dividends received	<b>1,360,435</b>	<b>956,939</b>	<b>445,765</b>	<b>136,713</b>	<b>41,920</b>	<b>-</b>

The accompanying notes on pages 7 - 31 are an integral part of these financial statements.

(6)

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 1 Incorporation and principal activity

The Company was incorporated as Caribbean Catastrophe Risk Insurance Facility on February 27, 2007 under the laws of the Cayman Islands and obtained an insurance licence under the provisions of the Cayman Islands Insurance Law on May 23, 2007. On May 27, 2014 the Company re-registered as a Segregated Portfolio Company under the name of CCRIF SPC. The Company's sole shareholder is Mourant Ozannes Corporate Services (Cayman) Limited as is trustee (the "Trustee") of the CCRIF Star Trust (the "Trust"). The non-voting redeemable preference shares of each segregated portfolio (Note 9) are also held by the Trust.

The principal activity of the Company, through the establishment of various segregated portfolios (the "Segregated Portfolios"), is to provide catastrophe risk coverage through parametric insurance contracts, specifically relating to tropical cyclones, earthquakes and excess rainfall events ("events"), to certain Caribbean and Central American countries ("Participating Countries").

As of May 31, 2019, the Company comprises the General Portfolio (the "Core"), which undertakes no underwriting activities, and five Segregated Portfolios ("SP"s), namely:

- Caribbean EQ/TC SP ("EQ/TC") – provides earthquake and tropical cyclone coverage to Caribbean governments
- Caribbean XSR SP ("XSR") – provides excess rainfall coverage to Caribbean governments.
- Loan Portfolio Cover SP ("LPC") – provides loan portfolio coverage to financial institutions in Caribbean countries. LPC had not provided coverage as at May 31, 2019.
- Central America SP ("CA SP") - provides earthquake, tropical cyclone and excess rainfall coverage to Central American governments.
- COAST SP ("COAST SP") – COAST SP will provide fisheries insurance coverage to Caribbean governments against the effects of tropical cyclones. COAST SP had not provided coverage as at May 31, 2019.

Collectively the Core and SPs are referred to as "CCRIF SPC".

In accordance with the relevant Cayman Islands laws, the assets and liabilities of the Segregated Portfolios are required to be kept separate and segregated from the assets and liabilities of the Core. Further, the assets and liabilities of each Segregated Portfolio are required to be kept segregated, separate and separately identifiable from the assets and liabilities of any other Segregated Portfolio. In the case of insolvency with respect to the general business activities, creditors will be entitled to recourse only to the extent of the assets of the Core. In the case of insolvency with respect to or attributable to a particular Segregated Portfolio, creditors will be entitled to have recourse only to the assets attributable to such Segregated Portfolio; such a claim shall not extend to the assets attributable to the Core or any other Segregated Portfolio.

The Core and SPs all use common service providers, share common processes, accounting systems, control environment, management and apply common accounting policies.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 2 Parametric contracts

Each Participating Country determines the level of aggregate coverage and attachment point which are then used to determine their individual premiums. Claims are based on model-derived estimates of government losses generated using a pre-defined and escrowed catastrophe loss model and input data regarding the nature of each physical hazard event, as set out in the “Claims Procedures Manual: (“hereinafter the “Claim Payout”) and not with reference to actual losses incurred by the respective Participating Countries. Accordingly, Claim Payouts are not triggered by actual losses but rather the occurrence of the specified events within the defined policy parameters.

For the 2018/19 policy period, the combined aggregate coverage limits for all Participating Countries in the EQ/TC were \$405.6 million for tropical cyclone events and \$290.1 million for earthquake events, respectively.

EQ/TC has ceded layers of this exposure to commercial reinsurers. The following is a summary of the coverage in the program for the 2018/19 policy period:

- EQ/TC retains all losses up to \$25 million. A further sub-layer of reinsurance covering the next \$10 million of losses has been obtained from a quality reinsurer with an A.M. Best rating of A+, covering a three year period, such that from the second year of coverage, up to \$10 million of losses are reinsured within this sub-layer.
- 100% of the next \$145 million of losses are reinsured with quality reinsurers with an A.M. Best rating of at least A-.
- EQ/TC retains all subsequent losses above \$170 million. The modelled probability of a loss reaching this layer has been indicated to be a 1-in-503.3 year loss event.

For the 2018/19 policy period, the combined aggregate coverage limits for all Participating Countries in the XSR SP was \$123.3 million.

XSR has ceded layers of this exposure to a commercial reinsurer. The following is a summary of the coverage in the program for the 2018/19 policy period:

- XSR retains all losses up to \$7.7 million
- 100% of the next \$36.5 million of losses are reinsured with quality reinsurers with an A.M. Best rating of A+.
- XSR retains all subsequent losses above \$44.2 million. The modelled probability of a loss reaching this layer has been indicated to be a 1-in-1,054.5 year loss event.

For the 2018/19 policy period, the combined aggregate coverage limits for all Participating Countries in the CA SP were \$18.2 million for tropical cyclone events, \$9.9 million for earthquake events, and \$21.3 million for excess rainfall events respectively.

CA SP has ceded layers of this exposure to commercial reinsurers. The following is a summary of the coverage in the program for the 2018/19 policy period:

Earthquake and tropical cyclone coverage:

- CA SP retains all losses up to \$1.5 million.
- 100% of the next \$18.5 million of losses are reinsured with quality reinsurers with an A.M. Best rating of at least A.
- CA SP retains all subsequent losses above \$20 million. The modelled probability of a loss reaching this layer has been indicated to be a 1-in-1,080.4 year loss event.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 2 Parametric contracts (continued)

Excess rainfall coverage:

- CA SP retains all losses up to \$3 million
- 100% of the next \$9 million of losses are reinsured with a quality reinsurers with an A.M. Best rating of A+.
- CA SP retains all subsequent losses above \$12 million. The modelled probability of a loss reaching this layer has been indicated to be a 1-in-395.4 year loss event.

Losses are determined in accordance with the formulae set out in the contracts and are recorded as an expense on occurrence of a covered event. At May 31, 2019, there were no unpaid losses.

LPC and COAST SP coverage have not yet commenced.

### 3 Significant accounting policies

These financial statements on pages 3-29 have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”) and are stated in United States dollars. A summary of the significant accounting and reporting policies used in preparing the accompanying financial statements is as follows:

**Management estimates and assumptions:** The preparation of financial statements in accordance with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. Actual results could differ from these estimates.

**Cash and cash equivalents:** Cash and cash equivalents comprise of call accounts with banker and investment custodians. The total cash balance includes cash held in foreign currencies for the Core, EQ/TC SP, XSR SP and LPC SP with costs of \$52,518, \$225,071, \$84,321, \$78,547, and market values of \$51,876, \$222,347, \$83,226, \$74,233, respectively.

**Investments:** Investments consist of investments in equities, exchange-traded funds, retail mutual funds, corporate and government debt securities and short-term investments. Investment securities are traded with the objective of generating profits on short-term differences in market prices; accordingly, investments are classified as trading securities and are measured at fair value.

The fair value of exchange-traded funds and listed equities are based on quoted market prices. The fair value of equity and fixed income securities are determined based on quoted market prices and/or prices determined using generally accepted pricing models as provided by the investment manager and custodian. The fair value of the retail mutual funds is based on the daily net asset values provided by fund administrators.

Unrealized gains and losses on investments are recorded as a change in fair value in the Statement of Operations. Realized gains and losses on investments are determined on the specific identification method and are credited or charged to the Statement of Operations.

Interest and dividend income is recorded on the accruals basis.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 3 Significant accounting policies (continued)

**Forward and futures contracts:** Investment managers are permitted to invest, within prescribed limits, in financial exchange traded futures contracts for managing the asset allocation and duration of the fixed income portfolio. Initial margin deposits are made upon entering into futures contracts and can be made either in cash or securities. During the period the futures contracts are open, changes in the value of the contracts are recognized as unrealized gains or losses by “marking-to-market” on a daily basis to reflect the market value of the contracts at the end of each day’s trading. Variation margin payments are made or received, depending upon whether unrealized losses or gains are incurred. When the contracts are closed realized gain or loss is recorded equal to the difference between the proceeds from (or cost of) the closing transaction and the basis in the contracts. Futures contracts are valued based on exchange traded prices.

Investment managers are also permitted to invest in forward foreign exchange contracts to hedge or obtain exposure to foreign currency fluctuations in its securities which are denominated in currencies other than the U.S. dollar. These contracts are also valued daily using the “marking-to-market” method and are recognized in the balance sheet at their fair value, being the unrealized gains or losses on the contracts as measured by the difference between the forward foreign exchange rates at the dates of entry into the contracts and the forward rates at the reporting date. Open forward and futures contracts are valued using Level 1 and Level 2 inputs (as defined in the accounting policy below), respectively.

Realized gains and losses and movement in unrealized gains and losses on both futures and foreign currency forward contracts are recorded as a component of investment income in the Statement of Operations.

**Over-the-counter (“OTC”) options:** Investment managers are permitted to purchase and write OTC options to hedge against or obtain exposure to changes in the value of equities. OTC options are generally valued based on estimates provided by broker dealers or derived from proprietary/external pricing models using quoted inputs based on the terms of the contracts. Movement in unrealized gains and losses on OTC options are recorded as a component of investment income in the Statement of Operations. Open OTC options are valued using Level 2 inputs (as defined in the fair value measurements accounting policy below).

**Other Options and Warrants:** Investment managers are permitted to purchase exchange-traded options and warrants to hedge against or obtain exposure to changes in equity price. When an option or warrant is purchased, an amount equal to the premium paid is recorded as an investment and is subsequently adjusted to the current market value of the option or warrant purchased. Premiums paid for the purchase of options or warrants which expire unexercised are treated as realized losses on derivative contracts. If a purchased put option is exercised, the premium is subtracted from the proceeds of the sale of the underlying security, foreign currency or commodity in determining whether gain or loss have been realized on derivative contracts. If a purchased call option or warrant is exercised, the premium increases the cost basis of the purchased security, foreign currency or commodity.

Movement in unrealized gains and losses on other options and warrants are recorded as a component of investment income in the Statement of Operations. Open options and warrants are valued using Level 2 inputs (as defined in the fair value measurements accounting policy below).

**Fair value measurements:** US GAAP establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under US GAAP are as follows:

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 3 Significant accounting policies (continued)

Level 1	Inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that CCRIF SPC has the ability to access at the measurement date;
Level 2	Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly, including inputs in markets that are not considered to be active;
Level 3	Inputs that are unobservable.

Inputs are used in applying the various valuation techniques and broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics, and other factors for debt securities. The fair value of investments in common stocks and exchange-traded funds is based on the last traded price. Net Asset Values (“NAV”) are used to estimate the fair value of investments in non-exchange traded mutual funds. Investments in debt securities are valued based on observable inputs for similar securities and may include broker quotes.

A financial instrument’s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. However, the determination of what constitutes “observable” requires significant judgment by the investment managers and custodians. The investment manager and custodian consider observable data to be market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant markets.

The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the investment advisors’ perceived risk of that instrument. Investments are initially recorded at cost on trade date (being the fair value at date of acquisition) and are subsequently re-valued to fair value.

Investments whose values are based on quoted market prices in active markets, and are therefore classified within Level 1, include active listed equities, exchange-traded funds and certain short-term, investments. The investment manager does not adjust the quoted price for such instruments. Investments that trade in markets that are considered to be less active, but are valued based on quoted market prices, dealer quotations or alternative pricing sources supported by observable inputs are classified within Level 2. These include liquid corporate debt securities and non-exchange traded mutual funds. As Level 2 investments include positions that may not be traded in active markets and/or may subject to transfer restrictions, valuations may be adjusted, generally based on available market information.

None of the investments are classified within Level 3.

**Income from Donor Funds:** In accordance with the agreements described in Note 6, income from Donor Funds is recorded on an accruals basis when costs reimbursable or the conditions for drawdown under the grant agreements were incurred or met and such reimbursements or drawdowns are contractually receivable.

**Unrestricted grant funds:** The Company recognizes income or grants from donors as contributions when it has received or has the right to receive an unconditional transfer of cash or other asset or a settlement or cancellation of its liabilities in a voluntary nonreciprocal transfer from such party.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 3 Significant accounting policies (continued)

**Income and expenses from parametric contracts:** Amounts payable/receivable for claims under the parametric policies written and ceded does not correlate directly to the policyholder's incurred insurable loss (see Note 2 for details). Accordingly, these policies are not accounted for as insurance contracts within these financial statements.

Income from parametric contracts is initially recognized as a liability (reinsurance expense ceded: as an asset) and subsequently reported at fair value. All subsequent changes in fair value of the parametric contracts are recognized in earnings as income (reinsurance expenses) attributable to parametric contracts. The fair value of the contracts is determined based on management's best estimate of the discounted payouts (recoveries) resulting from the reasonably probable occurrence, magnitude and location of insured/reinsured events (based on historical trends and statistics) during the unexpired period of the contracts. At May 31, 2019, the fair value of these instruments was \$Nil and accordingly, all income and expenses on such contracts are recognized as income/expense in the Statement of Operations. The net realized gains on the parametric contracts are comprised of the following line items within the Statement of Operation: Income from parametric insurance contracts, Discounts awarded on parametric insurance contracts, Expenses on parametric reinsurance contracts, Claims paid on parametric insurance contracts, and Claims recovered on parametric insurance contracts, and are \$12,979,163 in EQ/TC SP, (\$1,880,701) in XSR SP and \$1,229,357 in CA SP for the year ended May 31, 2019.

**Participation fee deposits:** Participation fee deposits are paid by Participating Countries to enter the program. Deposits received are recorded as a liability in the financial statements. Participation fee deposits are recognized as income when:

- they are no longer refundable to the Participating Countries (see Note 7); and/or
- they are required to fund losses (see Note 7);
- they are non-refundable.

Refundable deposits that are utilized to fund losses will be reinstated to the extent available from subsequent retained earnings up to the maximum amount of the initial deposits.

**Foreign currency translation:** Foreign currency assets and liabilities are converted to U.S. dollars at the rate of exchange prevailing at the balance sheet date. Transactions in foreign currencies are converted into U.S. dollars at the rate of exchange prevailing at the date of the transaction. Foreign exchange differences are included in the Statement of Operations in the year to which they relate.

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

**Provision for uncollectible receivables:** Management evaluates credit quality by evaluating the exposure to individual counterparties; where warranted management also considers the credit rating of financial position, operating results and or payment history of the counterparty. Management establishes provisions for amounts for which collection is considered doubtful. Adjustments for previous assessments are recognized as income in the year in which they are determined. No receivables are due in more than 12 months. At May 31, 2019, no receivables were determined to be past due or impaired and, accordingly, no provision for doubtful collection has been established.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 3 Significant accounting policies (continued)

**Development costs:** Development costs are amounts capitalized with respect to the development of loss models used by the Segregated Portfolios. The costs are amortized on a straight line basis over 10 years for loss models (and 3 years for model upgrades), being management's best estimate of the expected useful life from the date the respective models become operational.

**Segregated Portfolios:** Each segregated portfolio's assets, liabilities and transactions are kept segregated and separately identifiable and accordingly each segregated portfolio is a separately identifiable financial reporting unit which respectively maintains segregated accounting records.

Each individual Segregated Portfolio is established in connection with the issuance of separate non-voting redeemable preference shares which are attributable to an individual segregated portfolio. The preference shares of each Segregated Portfolio are held by the Trust. Accordingly, as the Core has no ownership or beneficial interests in the net assets of any Segregated Portfolio, the results of the Segregated Portfolios are not consolidated and no transactions between Segregated Portfolios and/or the Core are eliminated.

Separate financial statements are prepared for the Core and each Segregated Portfolio and presented individually in columnar format.

**Segregated Portfolio rental fees:** The Board of Directors may, at its discretion, charge rental fees to the Segregated Portfolios. Such fees represent a discretionary allocation of central costs (including items such as administrative expenses, technical assistance expenses and amortization of development costs) necessarily incurred by the Core in the operation of the Segregated Portfolios. Rental fee income and expenses is recorded by the Core and Segregated Portfolios, respectively, when declared by the Board of Directors and in the amounts so determined by the Board of Directors.

**Other Income:** Other income for services rendered are primarily derived from providing consultancy services (other than underwriting activities). Income related to consultancy services are generally recognized over the period that the corresponding service is rendered to customers.

### 4 Cash and cash equivalents

Cash and cash equivalents comprise accounts held by two banks in the Cayman Islands, along with cash and margin call accounts held with the investment managers, and are managed within guidelines established by the Board of Directors.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 5 Investments

During the year, London and Capital and Butterfield Bank were engaged to provide asset management services under the terms of the related investment management agreements. London and Capital provided asset management services to the Core, as well as the following SPs, namely EQ/TC, XSR and LPC. Butterfield Bank provided asset management services only to the Core.

The following tables summarize the investments that are measured at fair value at May 31, 2019, refer to Note 8 for additional disclosure over derivatives held at year end:

	Fair Value Measurements Determined Using:			Total \$
	Level 1 Inputs \$	Level 2 Inputs \$	Level 3 Inputs \$	
<b>Core</b>				
<b>At May 31, 2019:</b>				
<b>Assets</b>				
Exchange traded mutual funds	789,630	-	-	789,630
Equity investments				
- Communications	545,327	-	-	545,327
- Industrial	507,097	-	-	507,097
- Consumer, Non-cyclical	855,655	-	-	855,655
- Technology	894,070	-	-	894,070
- Energy	185,614	-	-	185,614
- Healthcare	607,464	-	-	607,464
- Financials	493,361	-	-	493,361
- Materials	205,242	-	-	205,242
- Utilities	134,627	-	-	134,627
- Real Estate	111,827	-	-	111,827
Corporate debt securities	-	32,908,861	-	32,908,861
Government sponsored debt securities	-	6,423,260	-	6,423,260
Total Assets	5,329,914	39,332,121	-	44,662,035
<b>EQ/TC SP</b>				
<b>At May 31, 2019:</b>				
<b>Assets</b>				
Equity investments				
- Materials	575,577	-	-	575,577
- Communications	1,147,094	-	-	1,147,094
- Industrial	514,412	-	-	514,412
- Consumer, Non-cyclical	1,428,998	-	-	1,428,998
- Technology	549,433	-	-	549,433
- Utilities	300,049	-	-	300,049
Corporate debt securities	-	40,513,906	-	40,513,906
Government sponsored debt securities	-	6,066,533	-	6,066,533
Total Assets	4,515,563	46,580,439	-	51,096,002

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 5 Investments (continued)

	Fair Value Measurements Determined Using:			
	Level 1	Level 2	Level 3	Total
	Inputs	Inputs	Inputs	
	\$	\$	\$	\$
<b><u>XSR SP</u></b>				
<b>At May 31, 2019:</b>				
<b>Assets</b>				
Equity investments				
- Materials	212,241	-	-	212,241
- Communications	422,716	-	-	422,716
- Industrial	189,577	-	-	189,577
- Consumer, Non-cyclical	526,611	-	-	526,611
- Technology	202,412	-	-	202,412
- Utilities	110,595	-	-	110,595
Corporate debt securities	-	14,827,322	-	14,827,322
Government sponsored debt securities	-	2,227,567	-	2,227,567
Total Assets	1,664,152	17,054,889	-	18,719,041
<b><u>LPC SP</u></b>				
<b>At May 31, 2019:</b>				
<b>Assets</b>				
Equity investments				
- Materials	58,432	-	-	58,432
- Communications	115,535	-	-	115,535
- Industrial	52,195	-	-	52,195
- Consumer, Non-cyclical	146,040	-	-	146,040
- Technology	55,261	-	-	55,261
- Utilities	30,609	-	-	30,609
Corporate debt securities	-	4,194,713	-	4,194,713
Government sponsored debt securities	-	445,227	-	445,227
Total Assets	458,072	4,639,940	-	5,098,012
<b><u>CA SP</u></b>				
<b>At May 31, 2019:</b>				
<b>Assets</b>				
Equity investments				
- Materials	44,943	-	-	44,943
- Communications	88,769	-	-	88,769
- Industrial	40,093	-	-	40,093
- Consumer, Non-cyclical	111,942	-	-	111,942
- Technology	43,468	-	-	43,468
- Utilities	23,521	-	-	23,521
Corporate debt securities	-	3,566,506	-	3,566,506
Government sponsored debt securities	-	100,203	-	100,203
Total Assets	352,736	3,666,709	-	4,019,445

There were no transfers between Levels 1, 2, or 3 during the year ended May 31, 2019.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 5 Investments (continued)

The cost of investments for Core, EQ/TC, XSR, LPC and CA at May 31, 2019 is \$44,501,241, \$50,579,030, \$18,563,972, \$5,033,959 and \$3,909,619, respectively.

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>LPC SP</b>	<b>CA SP</b>
Percentage of debt securities issued by US counterparties	58%	46%	46%	55%	68%
Percentage of debt securities issued by UK counterparties	21%	26%	26%	23%	11%
Percentage of debt securities issued by counterparties based in other countries	21%	28%	28%	22%	21%

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>LPC SP</b>	<b>CA SP</b>
Percentage of debt securities graded as A- or higher	52%	42%	36%	48%	55%
Percentage of debt securities graded as BBB- or higher but lower than A-	40%	49%	50%	44%	41%
Percentage of non-investment graded debt securities below BBB- or not rated	8%	9%	13%	9%	4%

The average maturity of fixed income securities as at May 31, 2019 is disclosed in the table below:

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>LPC SP</b>	<b>CA SP</b>
Average maturity	4.25 years	6.46 years	7.40 years	6.19 years	4.40 years

The above maturity disclosures do not include perpetual bonds held by the Core, EQ/TC SP, XSR SP, LPC SP and CA SP at May 31, 2019, which totalled 5%, 15%, 17%, 16% and 5% of the total fixed income investments respectively.

The company is exposed to foreign exchange risk on debt securities that corresponds to the jurisdiction of the issuing counterparties.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 6 Donor Funds and Unrestricted grant funds

#### Donor Funds

Effective October 14, 2015, an agreement was entered into between the International Bank for Reconstruction and Development/International Development Association (“World Bank”) acting as administrator of the Central America and Caribbean Catastrophe Risk Insurance Program Multi-Donor Trust Fund, and CCRIF SPC on behalf of CA SP (the “Recipient”) as per CCRIF TF Grant No. TF0A0564. The grant is for US\$19.5 million to CCRIF SPC for a Central America and Caribbean Catastrophe Risk Insurance Project (the “Project”). The Donor Funds finance Parametric Earthquake Risk Insurance and Parametric Climate Risk Insurance for CA SP Participating Countries. The Multi-Donor Trust Fund has a closing date of December 31, 2019, which is extendable upon negotiations between the World Bank and the donors to the Multi-Donor Trust Fund. At the termination of the grant arrangement, the reimbursements will cease. Any unused funding at the date of termination will no longer be available to CA SP. Costs reimbursable under the grant agreement TF0A0564 include insurance payouts of CA SP, to the extent that such payouts are not covered by any reinsurance purchased by CA SP, reinsurance premiums and other certain operational expenses of CA SP agreed with the World Bank.

During the year ended May 31, 2019, \$1,463,151 donor fund income relating to the World Bank project under CCRIF TF Grant No. TF0A0564 was recorded in the statement of operations in CA SP to finance reinsurance premium payments made during the year. At May 31, 2019, \$13,584,903 remained available from the Multi Donor Trust Fund to finance future reimbursable costs of CA SP during the remaining period of the arrangement.

Effective August 14, 2017, an agreement was entered into between the World Bank acting as administrator of the Central America and Caribbean Catastrophe Risk Insurance Program Multi-Donor Trust Fund, and CCRIF SPC on behalf of CA SP, EQ/TC SP and XSR SP as per CCRIF TF Grant No. TF0A5343. The grant is for US\$23.75 million as additional financing for activities of CCRIF SPC to improve affordability of high quality sovereign catastrophe risk transfer associated with earthquakes and climate-related events for CCRIF Participating Countries. The Multi-Donor Trust Fund has a closing date of December 31, 2019, which is extendable upon negotiations between the World Bank and the donors to the Multi-Donor Trust Fund. At the termination of the grant arrangement, the reimbursements will cease. Any unused funding at the date of termination will no longer be available to CA SP, EQ/TC SP and XSR SP. Amounts reimbursable under the grant agreement include; i) Participation fees, non-consulting services and insurance payments up to \$21,750,000; and ii) consulting services and training costs up to \$2,000,000.

During the year ended May 31, 2019, donor fund income under CCRIF TF Grant No. TF0A5343 relating to CA SP participation fees due by the Government of Panama, XSR SP participation fees due by the Government of British Virgin Islands amounting to \$600,000 and \$200,000 respectively, were received. At May 31, 2019, \$13,467,060 remained available from CCRIF TF Grant No. TF0A5343.

#### Unrestricted grant funds

Pursuant to a grant agreement dated December 15, 2017 between the Caribbean Development Bank (the “CDB”) and CCRIF SPC, the CDB contributed \$14,000,000 to assist in the provision of financial support to the operations of the Company to provide enhanced insurance coverage against tropical cyclones, earthquakes and excess rainfall. The grant was allocated 70% to EQ/TC SP and 30% to XSR SP.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 6 Donor Funds and Unrestricted grant funds (continued)

#### Ireland Grant

On January 14, 2019, the Caribbean Company entered into an agreement with the Minister for Foreign Affairs and Trade of Ireland, represented by the Development Cooperation Directorate of the Department of Foreign Affairs and Trade (Grantor/Irish Aid) the purpose of which is to provide CCRIF SPC with grant funding for Building Sustainability of the CCRIF model to 2030. The Grantor has contributed Eur \$1,000,000 on December 21, 2018 to be utilised over a period of 18 months. The grant will be used for:

- a. Technical consulting expertise to support marketing and uptake of new products (drought, agricultural drought, public utilities) and business development efforts (Eur \$300,000) and
- b. Funding as part of pool donor resources towards the development of a Public Utilities Product and Capitalization of a new Segregated Portfolio to house this product (Eur \$700,000)

CCRIF's Caribbean member countries are expected to be the main beneficiaries to this project. . Included within Accounts payable and accrued expenses of the Core is \$1,128,985 related to the advanced receipt of grant funding in respect of this project.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 7 Participation Fees deposits

Participating fee deposits represent non-recurring amounts required to be paid by each Participating Country to enter a CCRIF SPC program. The deposits are equivalent to a proportion of the annual premiums written in respect of each Participating Country. It is Management's intent that participation fee deposits are available to fund losses in the event that funds from retained earnings and reinsurers are insufficient. If deposits are used to fund losses, it is also Management's intent that any subsequent earnings will be used to reinstate the deposits to their original carrying value; however, for the period from inception to May 31, 2019, no deposit has been used to pay losses. Certain of the participation fees are refundable, without interest, in the event that the CCRIF SPC does not renew the coverage to participating countries. Participation fees are generally not refundable if a Participating Country leaves the program for more than one year in any five year period, and would be recognized as income at that point. Participating Countries, who leave the program resulting in participation fees being voided, may, at the discretion of the Directors, be required to repay participation fees if they want to rejoin the program subsequently. Further, participation fees deposits are partially refundable when a Participating Country's premium is reduced due to a reduction in coverage purchased, to the extent of the revised annual premiums.

During the year ended May 31, 2011, the Board of Directors approved a modification to the participation agreements such that up to 50% of the participation fees deposits paid by the Participating Countries could be used towards their respective premiums and during the year ended May 31, 2018, one Participating Country elected to use a proportion of participation fee deposits held by EQ/TC SP to partially settle its Income from parametric insurance contracts owing to XSR SP (Note 16).

During the year ended May 31, 2019 the Board of Directors approved a non-refundable Participation Fee deposit with the Government of Panama (CA SP). If Panama chooses not to purchase an insurance Policy under the Insurance Programme for more than one year in any five year period, then Panama must pay a new Participation Fee in such amount as may be required by the Insurer at that time to be re-admitted to the Insurance Programme ("Re-admission") if it wishes to purchase an Insurance Policy. In the event of Re-admission the same provision shall apply in respect of subsequent periods (but shall not take account of any period prior to the date of Re-admission). The non-refundable participation fee of \$600,000 was settled by drawing on the CCRIF TF Grant No. TF0A5343 (Note 6).

During the year ended May 31, 2019 the Board of Directors approved a non-refundable Participation Fee deposit with the Government of the British Virgin Islands (XSR SP). If British Virgin Islands chooses not to purchase an insurance Policy under the Insurance Programme for more than one year in any five year period, then British Virgin Islands must pay a new Participation Fee in such amount as may be required by the Insurer at that time to be re-admitted to the Insurance Programme ("Re-admission") if it wishes to purchase an Insurance Policy. In the event of Re-admission the same provision shall apply in respect of subsequent periods (but shall not take account of any period prior to the date of Re-admission). The non-refundable participation fee of \$200,000 was settled by drawing on the CCRIF TF Grant No. TF0A5343 (Note 6).

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 8 Derivative instruments

Derivatives are used for hedging purposes and portfolio management. Derivative instruments transactions include futures, forwards, and options with each instrument's primary risk exposure being interest rate, credit, foreign exchange, equity or commodity risk. The fair value of these derivative instruments is included as a separate line item in the balance sheet with changes in fair value reflected as net change in unrealized gains/(losses) on derivatives as a component of the investment income line item in the Statement of Operations (see Note 11).

The following tables indicate the realized and unrealized gains and losses on derivatives, by contract type, as included in investment income in the Statement of Operations for the year ended May 31, 2019 (see Note 11).

	Gross realized gains \$	Gross realized losses \$	Net realized losses \$	Change in unrealized gains \$
<b><u>Core</u></b>				
Futures/options on fixed income securities	17,311	(32,638)	(15,327)	-
Foreign exchange futures contracts	297,486	(74,869)	222,617	(45,540)
Total	314,797	(107,507)	207,290	(45,540)
<b><u>EQ/TC SP</u></b>				
Futures/options on fixed income securities	81,693	(135,388)	(53,695)	-
Foreign exchange futures contracts	889,317	(267,209)	622,108	1,257
Total	971,010	(402,597)	568,413	1,257
<b><u>XSR SP</u></b>				
Futures/options on fixed income securities	34,276	(63,130)	(28,854)	-
Foreign exchange futures contracts	397,466	(127,439)	270,027	(24,615)
Total	431,742	(190,569)	241,173	(24,615)
<b><u>LPC SP</u></b>				
Futures/options on fixed income securities	6,226	(10,215)	(3,989)	-
Foreign exchange futures contracts	143,823	(37,435)	106,388	(23,462)
Total	150,049	(47,650)	102,399	(23,462)
<b><u>CA SP</u></b>				
Futures/options on fixed income securities	-	(4,302)	(4,302)	-
Foreign exchange futures contracts	-	-	-	-
Total	-	(4,302)	(4,302)	-

The exposures on derivative contracts are generally short-term as these contracts are settled or lapse within a short time frame. The positions held in foreign exchange contracts at May 31, 2019, are reflective of the average positions held in currency futures and options contracts during the year. With respect to futures and option contracts, the maximum notional exposure at any one point in time during the year ended May 31, 2019 were (there was no options exposure during the year):

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 8 Derivative instruments (continued)

Core	Currency Futures Exposure: \$2,730,981	Fixed Income Futures Exposure: \$3,403,132
EQ/TC SP	Currency Futures Exposure: \$11,329,325	Fixed Income Futures Exposure: \$15,314,096
XSR SP	Currency Futures Exposure: \$4,644,484	Fixed Income Futures Exposure: \$6,806,265
LPC SP	Currency Futures Exposure: \$1,342,336	Fixed Income Futures Exposure: \$1,701,566
CA SP	Currency Futures Exposure: \$-	Fixed Income Futures Exposure: \$581,577

The following outstanding foreign exchange contracts were held as at May 31, 2019:

	Maturity date	Notional value \$	Fair values \$
<b><u>Core</u></b>			
United States Dollars future (bought US\$ sold £)	June 17, 2019	1,575,000 (At future rate of US\$1.26: £1)	84,119
United States dollars future (bought US\$ sold €)	June 17, 2019	980,000 (At future rate of US\$1.12: €1)	17,155
			<u>101,274</u>
<b><u>EQ/TC SP</u></b>			
United States Dollars future (bought US\$ sold £)	June 17, 2019	5,512,500 (At future rate of US\$1.26: £1)	294,418
United States dollars future (bought US\$ sold €)	June 17, 2019	3,920,000 (At future rate of US\$1.12: €1)	68,618
			<u>363,036</u>
<b><u>XSR SP</u></b>			
United States Dollars future (bought US\$ sold £)	June 17, 2019	2,126,250 (At future rate of US\$1.26: £1)	113,561
United States dollars future (bought US\$ sold €)	June 17, 2019	1,260,000 (At future rate of US\$1.12: €1)	22,056
			<u>135,617</u>
<b><u>LPC SP</u></b>			
United States Dollars future (bought US\$ sold £)	June 17, 2019	630,000 (At future rate of US\$1.26: £1)	33,648
United States dollars future (bought US\$ sold €)	June 17, 2019	420,000 (At future rate of US\$1.12: €1)	7,352
			<u>41,000</u>

No currency option contracts are open as at May 31, 2019.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 8 Derivative instruments (continued)

Additional disclosure is required for investments and derivative financial instruments subject to master netting or similar agreements which are eligible for offset in the Balance Sheet and requires an entity to disclose both gross and net information about such investments and transactions in the financial statements.

The following table presents on the gross amounts presented in the Balance Sheets:

As of May 31, 2019

Entity	Asset Type	Counterparty	Gross amount of financial assets presented on the Balance Sheet** \$	Gross amount of financial Liabilities presented on the Balance Sheet* \$	Net amount not offset on the Balance Sheet \$
Core	Currency Future	RBS	101,274	(18,319)	82,955
EQ/TC SP	Currency Future	RBS	363,036	58,742	421,778
XSR SP	Currency Future	RBS	135,617	10,216	145,833
LPC SP	Currency Future	RBS	41,000	(7,657)	33,343

\*All of these liabilities represent margin balances held at brokers at year end.

\*\* These exchange traded derivatives meet the criteria of Level 1 investments as defined within Note 3.

### 9 Share capital and share premium

The authorised share capital of CCRIF SPC is \$50,000 divided into 1,000 voting ordinary shares with a nominal or par value of \$1.00 per share and 49,000 non-voting redeemable preference shares of \$1.00 each. The following amounts are issued and fully paid.

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$	Coast SP \$
Share capital	1,000	-	-	-	-	-
Non-voting redeemable preference shares	-	1	1	1	1	-
Share premium	119,000	42,499,999	24,999,999	4,999,999	-	-
	<b>120,000</b>	<b>42,500,000</b>	<b>25,000,000</b>	<b>5,000,000</b>	<b>1</b>	<b>-</b>

The holders of the general common shares are entitled to receive notice of, attend and vote at any general meeting of CCRIF SPC. Holders of non-voting redeemable segregated portfolio shares have no right to receive notice of or attend any general meetings of CCRIF SPC, nor have any right to vote at any such meetings in respect of such shares. Holders of non-voting redeemable segregated portfolio shares have the right to dividends or other distributions, subject to a directors' resolution as to the timing and amount of such dividends, have the right to a return of capital of CCRIF SPC upon winding up of CCRIF SPC, in preference to that of the Ordinary shares, and the shares can be redeemed by CCRIF SPC.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 9 Share capital and share premium (continued)

The share premium account represents the excess of the proceeds from issued share capital over the par value of the shares issued. The share premium account was established in accordance with the Cayman Islands Companies Law, which restricts the uses of these reserves.

Pursuant to the CCRIF SPC's Articles of Association, the Directors may declare and authorize payment of dividends out of profits of CCRIF SPC. Payment of any dividends is subject to approval by the Cayman Islands Monetary Authority ("CIMA").

Under the Cayman Islands Insurance Law the Company is required to maintain a minimum and prescribed net worth of \$100,000.

CIMA has statutory powers that enable it to use its discretion to require CCRIF SPC to conduct its operations in accordance with general or specific conditions which may be imposed by CIMA or may be agreed between CIMA and CCRIF SPC. Generally, such matters are set out in the Business Plan which CCRIF SPC files with CIMA and, amongst others, includes reference to the risks assumed and retained by CCRIF SPC, the funding and capitalization levels, and investment policies.

### 10 Claims paid

There was one triggering event which resulted in a claim payment to a Participating Country in the EQ/TC SP. Total claim payment in the year ending May 31, 2019 was \$91,438. \$Nil was recovered from reinsurers in respect of this claim.

There were two triggering events which resulted in claim payments to Participating Countries in the XSR SP. Total claim payments in the year ending May 31, 2019 were \$8,347,850. \$647,850 was recovered from the reinsurer in respect of these claims.

There were no triggering events which resulted in claim payments to Participating Countries in the CA SP.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 11 Net investment income

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$	Coast SP \$
Net investment income comprises:						
Interest and dividend income	1,384,319	1,203,811	520,772	143,953	73,892	-
Change in fair value of investments	183,099	628,168	232,385	66,325	109,827	-
Net realized gain on sale of Investments	389,912	(68,796)	(39,176)	885	(2,429)	-
Investment management, custody and fund administration fees	(157,050)	(212,966)	(87,631)	(33,124)	(8,852)	-
Currency foreign exchange gains	(7,412)	(7,044)	(4,972)	(1,942)	-	-
Net realized loss on derivative instruments (Note 8)	207,290	568,413	241,173	102,399	(4,302)	-
Change in unrealized gains on derivative instruments (Note 8)	(45,540)	1,257	(24,615)	(23,462)	-	-
	<u>1,954,618</u>	<u>2,112,843</u>	<u>837,936</u>	<u>255,034</u>	<u>168,136</u>	<u>-</u>

### 12 Related party transactions

- i) During the year ended May 31, 2019, the Core incurred the Trustee and Enforcer fees of \$15,000 on behalf of the Trust. During the year ended May 31, 2019, key management compensation consisted of salaries and expenses amounting to \$653,016 for four employees which are included within administration expenses.
- ii) CCRIF SPC has entered into a contract (No. 7186304) with the World Bank to provide consultancy services related to The Caribbean Oceans and Aquaculture Sustainability Facility (COAST) – Project Design. Under the terms of the contract, CCRIF SPC will manage the process for the development and marketing of the CCRIF insurance fisheries product and undertake necessary regional partnering to establish the framework for implementation of risk mitigation through improved fisheries management leveraged by the product. This contract terminates on December 31, 2019 and has a total value of US\$835,500, of which \$250,650 has been recognized in the statement of operations based on work completed during the year.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 13 Administrative expenses

Administration expenses comprise:

	Core	EQ/TC SP	XSR SP	LPC SP	CA SP	Coast SP
	\$	\$	\$	\$	\$	\$
Audit and other professional fees	111,658	6,667	11,667	-	1,667	-
Captive management fees	79,800	53,200	15,000	-	12,000	-
Consultancy fees	26,875	-	-	-	-	207,310
Board and executive management remuneration	829,134	-	-	-	-	-
Directors' and Officers' insurance	24,750	-	-	-	-	-
Legal fees	2,676	2,512	920	-	2,228	5,679
Government fees	18,422	671	671	671	671	279
Meeting expenses	100,619	-	-	-	3,678	-
Publicity, conferences & workshops	132,032	-	-	-	-	-
Trust expenses (Note 12)	15,000	-	-	-	15,000	-
Munich Climate Initiative (MCII)	117,423	-	-	-	-	-
Calculation Agency Fees & Licence Fees	-	143,000	90,000	-	22,000	-
Research and development	192,571	-	-	-	-	-
Sundry expenses and bank charges	17,205	3,862	14,873	1,000	18,328	-
	<u>1,668,165</u>	<u>209,912</u>	<u>133,131</u>	<u>1,671</u>	<u>75,572</u>	<u>213,268</u>

### 14 Taxation

No income, capital or premium taxes are levied in the Cayman Islands and CCRIF SPC has been granted an exemption until May 29, 2027, for any such taxes that might be introduced. CCRIF SPC intends to conduct its affairs so as not to be liable for taxes in any other jurisdiction. Accordingly, no provision for taxation has been made in these financial statements.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

(expressed in U.S. dollars)

### 15 Development costs

<b>Core</b>	<b><u>Second Generation Loss Model</u></b>	<b><u>Second Generation Loss Model Upgrade</u></b>	<b><u>Excess Rainfall Model</u></b>	<b><u>Carib &amp; CA Drought Model</u></b>	<b><u>Carib &amp; CA XSR Model</u></b>	<b><u>Carib &amp; CA EQ/TC SPHERA Model</u></b>	<b><u>Total</u></b>
<b>Cost:</b>	\$	\$	\$	\$	\$	\$	\$
Balance carried forward at May 31, 2018	180,000	379,755	430,000	540,000	670,000	1,200,000	3,399,755
Additions during the year	-	-	263,880	-	-	800,000	1,063,880
Balance carried forward at May 31, 2019	180,000	379,755	693,880	540,000	670,000	2,000,000	4,463,635
<b>Accumulated amortisation</b>							
Balance carried forward at May 31, 2018	144,000	379,755	237,500	49,100	128,833	-	939,188
Amortisation charge for the year	18,000	-	31,389	54,000	67,000	-	170,389
Balance carried forward at May 31, 2019	162,000	379,755	268,889	103,100	195,833	-	1,109,577
Net book value at May 31, 2019	18,000	-	424,991	436,900	474,167	2,000,000	3,354,058

Development costs above represent fees paid to third parties for development of computer loss modeling software which is necessary for the underwriting operations of CCRIF SPC.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 16 Due to/from Core and Due to/from Segregated Portfolios

During the year ended May 31, 2019, the following transactions occurred between the Segregated Portfolios:

	<b>Core</b>	<b>EQ/TC SP</b>	<b>XSR SP</b>	<b>CA SP</b>	<b>Coast</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>SP \$</b>
Premiums received in advance by the Core, on behalf of EQ/TC SP	(965,166)	965,166	-	-	-
Total due (to)/from Core/Segregated Portfolios	(965,166)	965,166	-	-	-

During the year ended May 31, 2019, the Board of Directors approved segregated portfolio rental fees charged by the Core to the Segregated Portfolios of \$1,500,000 to EQ/TC SP, \$400,000 to XSR SP and \$485,000 to CA SP.

The Core funds the purchase of computer loss modelling software and related upgrades (Note 15) which are used by the Segregated Portfolios. Such costs are capitalised by the Core as development costs and are recognised as assets of the Core. The Core, through the segregated portfolio rental fee, charges the relevant Segregated Portfolio for their use of these models in the processing of claims. The cell rental fees also cover certain general expenses paid by the Core on behalf of SPs such as Directors Fees, Staff Costs, some Service Provider Costs and Technical Assistance costs as both the Core and SPs benefit from these services.

During the year a Sub-Licence Fee was introduced. This relates to new model expenditure from 2018/19 onwards and covers costs incurred by the Core for the Sphera model, Update on XSR 2.1 and 3.0 and the Drought model. For 2018/19 the Board of Directors approved sub-licence fees by the Core to the Segregated Portfolios of: \$95,000 to EQ/TC SP, \$87,189.05 to XSR SP and \$208,644.28 to CA SP.

### 17 Certain risks and financial instruments

#### a. Geographical concentration of risk

The CCRIF SPC's principal activity comprises parametric catastrophe risk coverage for Participating Countries in the Caribbean and Central America regions.

#### b. Fair Value

With the exception of balances in respect of insurance contracts, which are specifically excluded under U.S. GAAP, the carrying amounts of all financial instruments, except for investments, approximate their fair values due to their short-term maturities, and have been determined using Level 2 inputs; aside from cash and cash equivalents which have been determined using Level 1 inputs. Investments and derivative instruments are carried at fair value as described in Notes 3, 5 and 8.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 17 Certain risks and financial instruments (continued)

#### c. Credit risk

Financial assets potentially subject to concentrations of credit risk consist of cash and cash equivalents, investments in debt instruments, accrued interest receivable and due from donor funds. The maximum amount of loss at May 31, 2019 would incur if the counterparties to the transactions do not meet their obligations, which would be the carrying amount of such assets in the balance sheet. Cash and cash equivalents and investments are placed with or held in custody by high credit quality financial institutions.

Similarly, the investment policy requires that the investment managers invest in securities with a high credit quality (see Note 5). EQ/TC, XSR and CA SP have entered into parametric reinsurance arrangements with unrelated reinsurers. Parametric reinsurance ceded contracts do not relieve the EQ/TC, XSR or CA SP from their obligations under the parametric insurance contracts they have issued. EQ/TC, XSR and CA SP remain liable under its parametric insurance contracts for the portion reinsured to the extent that reinsurers do not meet their obligations to the Company assumed under the parametric reinsurance agreements. The credit risk is managed by transacting only with counterparties considered highly reputable and creditworthy and within established investment/derivative guidelines.

Management is satisfied that the concentrations of credit risk will not result in a material loss to the Company.

#### d. Interest rate risk

The fair value of investments in fixed interest securities will be affected by movements in interest rates. An analysis of the investment portfolios is shown in Note 5. The fair value of the futures contracts may also be affected by movements in interest rates.

#### e. Market risk

Market risk exists to the extent that the values of monetary assets fluctuate as a result of changes in market prices. Changes in market prices can arise from factors specific to individual securities, their respective issuers, securities/markets to which they are linked, or factors affecting all securities traded in a particular market. Relevant factors are both volatility and liquidity of specific securities and of the markets in which the investments are held.

#### f. Liquidity risk

Liquidity risk exists to the extent that investments may not be sold/ redeemed on a timely basis to settle losses. The liquidity risk is mitigated by maintaining a proportion of assets in cash and short-term investments.

#### g. Foreign exchange risk

In the normal course of business, the assets and liabilities may be held in currencies other than U.S. dollars. To reduce its risk to foreign exchange fluctuations futures foreign exchange contracts may be entered to. Futures foreign currency contracts result in exposure to currency risks to the extent of any mismatch between foreign exchange futures contracts and the corresponding financial instruments denominated in foreign currencies. Foreign currency futures contracts commit to purchase or sell the designated foreign currency at a fixed rate of exchange on a future date. The fair value of the futures foreign exchange contracts will fluctuate as a result of changes in the corresponding market rate of exchange. See Note 8 for details of futures foreign exchange contracts entered into during the period.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 17 Certain risks and financial instruments (continued)

#### **h. Futures contracts risk**

In the normal course of business financial futures are held and traded and are carried at fair value. These futures contracts represent future commitments to purchase financial instruments on specific terms at specified future dates. The fair value of the futures contracts will fluctuate corresponding to the fair value of the underlying financial instruments (see Note 8). The notional value of the underlying financial instruments represents the maximum risk of loss. The Directors consider this risk to be mitigated because of the short terms of the futures contracts and the underlying financial instruments being investment grade.

#### **i. Swaps**

The CCRIF SPC may enter into swap contracts to manage interest rate risk and hedge or obtain exposure to credit risk. The CCRIF SPC uses CDSs to provide protection against or obtain exposure to the credit default risks of sovereign or corporate issuers.

CDSs involve greater risks than if the CCRIF SPC had invested in the reference obligation directly. In addition to general market risks, CDSs are subject to liquidity risk and counterparty credit risk. The CCRIF SPC enters into CDSs with counterparties meeting certain criteria for financial strength. Where the CCRIF SPC is buying protection, the CCRIF SPC will recover none of the payments made to purchase that protection should a credit event not occur. During the year ended May 31, 2019 the CCRIF SPC did not sell credit protection. In connection with equity swap contracts, cash or securities may be posted to or received from the swap counterparty in accordance with the terms of the swap contract. The CCRIF SPC earns or pays interest on cash posted or received as collateral.

Off-balance sheet risks associated with all swap contracts involve the possibility that there may not be a liquid market for these agreements, that the counterparty to the contract may default on its obligation to perform and that there may be adverse changes in currency rates, credit status, market prices and interest rates. Notional contract amounts are presented in Note 8 to indicate the extent of the CCRIF SPC's exposure to such instruments. At May 31, 2019, the CCRIF SPC had no open swap contracts (see Note 8).

#### **j. Options**

Transactions in options carry a high degree of risk. The following section describes the primary types of option contracts that may be held and traded and the corresponding risks.

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

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

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 18 Certain risks and financial instruments (continued)

#### j. Options (continued)

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

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

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

#### k. Custody risk

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

### 19 Subsequent events

Management has performed a subsequent events review from June 1, 2019 to September 19, 2019, being the date that the financial statements were available to be issued. Management concluded that the following subsequent events require additional disclosure in these financial statements.

# CCRIF SPC

## Notes to Financial Statements

For the year ended May 31, 2019

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(expressed in U.S. dollars)

### 19 Subsequent events (continued)

Subsequent to year-end, in September 2019, Tropical Cyclone Dorian resulted in a payout under one policy in the Caribbean EQ/TC SP of \$11.527 million. A payment of \$1.297 million was made by the Caribbean XSR SP following excess rainfall associated with TC Dorian. The payments have not negatively affected the long-term viability of the cells. Also associated with TC Dorian, Caribbean EQ/TC SP made payments to five countries amounting to approximately US\$352 thousand under the Aggregate Deductible Cover policies.

During the 2019/20 financial year, Caribbean EQ/TC SP and CA SP introduced a new earthquake and tropical cyclone model loss assessment model called SPHERA (System for Probabilistic Hazard Evaluation and Risk Assessment) to underpin the EQ/TC policies. The SPHERA model is owned by CCRIF and was developed as a state-of-the-art tool, tailor-made to the needs of our members, and designed to further improve the accuracy and stability of the loss assessment after an event, as well as the structuring of the risk transfer between CCRIF and its members and pricing of the policies.

An updated version of the excess rainfall model was also introduced in the 2019/20 policy year for loss assessment and pricing of the excess rainfall policies in Caribbean XSR SP and CA SP. The XSR 2.5 model, also owned by CCRIF, was developed as part of a planned upgrade to further reduce basis risk and increase the stability of the loss estimates. This was done by slight modifications of the weather prediction algorithms implemented in the XSR model, taking into account the saturation of soil from recent rains, as well as additional observations available for humidity, temperature and atmospheric pressure.

# SUPPLEMENTAL INFORMATION

## CCRIF SPC

Balance Sheet

As at May 31, 2018

(expressed in U.S. dollars)

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$
<b>Assets</b>					
Cash and cash equivalents	11,907,743	18,492,705	5,180,052	791,517	1,689,580
Investments, at fair value	43,595,100	23,964,823	10,004,211	4,431,321	-
Margin collateral for derivative instruments	(101,908)	(237,353)	(109,452)	(40,604)	-
Development costs	2,460,567	-	-	-	-
Accrued interest	299,528	211,153	106,068	43,681	-
Unrealized gains on futures contracts	146,814	361,778	160,232	64,462	-
Due from Core	-	1,000,396	7,182,940	-	3,045,945
Due from Segregated Portfolios	-	-	648,427	-	-
Prepaid expenses	38,264	110,723	391	391	18,762
<b>Total assets</b>	<b>58,346,108</b>	<b>43,904,225</b>	<b>23,172,869</b>	<b>5,290,768</b>	<b>4,754,287</b>
<b>LIABILITIES AND SHAREHOLDER'S EQUITY</b>					
<b>Liabilities</b>					
Accounts payable and accrued expenses	373,651	21,711	99,187	4,049	-
Due to Segregated Portfolios	11,229,281	648,427	-	-	-
Income from parametric insurance contracts received in advance	-	3,097,595	774,167	-	-
Participation fee deposits	-	12,941,875	-	-	-
<b>Total liabilities</b>	<b>11,602,932</b>	<b>16,709,608</b>	<b>873,354</b>	<b>4,049</b>	<b>-</b>
<b>Shareholder's equity</b>					
Share capital	1,000	-	-	-	-
Non-voting redeemable preference shares	-	1	1	1	1
Share premium	119,000	42,499,999	24,999,999	4,999,999	-
Retained earnings / (accumulated deficit)	46,623,176	(15,305,383)	(2,700,485)	286,719	4,754,286
<b>Total shareholder's equity</b>	<b>46,743,176</b>	<b>27,194,617</b>	<b>22,299,515</b>	<b>5,286,719</b>	<b>4,754,287</b>
<b>Total liabilities and shareholder's equity</b>	<b>58,346,108</b>	<b>43,904,225</b>	<b>23,172,869</b>	<b>5,290,768</b>	<b>4,754,287</b>

# SUPPLEMENTAL INFORMATION

## CCRIF SPC

### Statement of Operations

For the year ended May 31, 2018

(expressed in U.S. dollars)

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$
<b>Operating income</b>					
Income from parametric insurance contracts	-	23,727,901	7,648,790	-	2,300,000
Discounts awarded on parametric insurance contracts	-	(2,372,791)	(764,879)	-	-
Expenses on parametric reinsurance contracts	-	(10,452,333)	(3,614,000)	-	(1,587,100)
Net income on parametric contracts	-	10,902,777	3,269,911	-	712,900
Ceding commissions on parametric reinsurance contracts	-	943,400	-	-	95,210
Total operating income	-	11,846,177	3,269,911	-	808,110
<b>Operating expenses</b>					
Claims paid on parametric insurance contracts	-	49,573,165	12,452,874	-	-
Claims recovered on parametric insurance contracts	-	(24,573,165)	(4,752,875)	-	-
Brokerage and risk management specialist fees	484,180	258,328	-	-	38,697
Total operating expenses	484,180	25,258,328	7,699,999	-	38,697
Net operating income / (loss)	(484,180)	(13,412,151)	(4,430,088)	-	769,413
<b>Other income and expenses</b>					
Net investment income	468,771	449,007	157,838	48,873	164
Income from Donor Funds	-	-	7,182,940	-	3,791,890
Unrestricted grant funds	-	9,800,000	4,200,000	-	-
Amortization of development costs	(140,900)	-	-	-	-
Technical assistance expenses	(534,919)	-	-	-	-
Segregated portfolio rental fees	2,385,000	(1,500,000)	(400,000)	-	(485,000)
Administrative expenses	(1,616,942)	(271,718)	(156,885)	(1,245)	(57,160)
<b>Net income / (loss) for the year</b>	<b>76,830</b>	<b>(4,934,862)</b>	<b>6,553,805</b>	<b>47,628</b>	<b>4,019,307</b>

**SUPPLEMENTAL INFORMATION**  
**CCRIF SPC**

Statement of Changes in Shareholder's Equity  
For the year ended May 31, 2018

(expressed in U.S. dollars)

	Share capital \$	Non-voting redeemable preference shares \$	Share premium \$	Retained earnings \$	Total \$
<b>Core</b>					
Balance at May 31, 2017	1,000	-	119,000	46,546,346	46,666,346
Net income for the year	-	-	-	76,380	76,380
Balance at May 31, 2018	1,000	-	119,000	46,623,176	46,743,176
<b>EQ/TC SP</b>					
Balance at May 31, 2017	-	1	42,499,999	(10,370,521)	32,129,479
Net loss for the year	-	-	-	(4,934,862)	(4,934,862)
Balance at May 31, 2018	-	1	42,499,999	(15,305,383)	27,194,617
<b>XSR SP</b>					
Balance at May 31, 2017	-	1	24,999,999	(9,254,290)	15,745,710
Net income for the year	-	-	-	6,553,805	6,553,805
Balance at May 31, 2018	-	1	24,999,999	(2,700,485)	22,299,515
<b>LPC SP</b>					
Balance at May 31, 2017	-	1	4,999,999	239,091	5,239,091
Net income for the year	-	-	-	47,628	47,628
Balance at May 31, 2018	-	1	4,999,999	286,719	5,286,719
<b>CA SP</b>					
Balance at May 31, 2017	-	1	-	734,979	734,980
Net income for the year	-	-	-	4,019,307	4,019,307
Balance at May 31, 2018	-	1	-	4,754,286	4,754,287

# SUPPLEMENTAL INFORMATION

## CCRIF SPC

### Statement of Changes in Cash Flows

#### For the year ended May 31, 2018

(expressed in U.S. dollars)

	Core \$	EQ/TC SP \$	XSR SP \$	LPC SP \$	CA SP \$
<b>Operating activities</b>					
Net income/(loss) for the year	76,830	(4,934,862)	6,553,805	47,628	4,019,307
Adjustments to reconcile net income/(loss) to net cash from operating activities:					
Adjustment for items not affecting cash:					
Change in fair value of investments	850,703	708,863	188,154	28,458	-
Net realized gains on investments	(283,557)	(1,052,548)	(179,722)	(2,556)	-
Change in unrealized gain on derivative instruments	(329,434)	(1,112,048)	(357,433)	(131,679)	-
Amortization of development cost	140,900	-	-	-	-
Trading securities:					
Purchase of securities and options	(15,591,169)	(31,233,056)	(7,302,911)	(2,950,259)	-
Proceeds from sale of securities and options	13,857,861	49,106,141	8,401,050	3,141,465	-
Change in derivatives margin collateral balance	428,864	1,549,372	448,927	157,355	-
Changes in assets and liabilities:					
Accrued interest	13,906	268,396	39,811	6,531	-
Amounts due from Donor Funds	-	-	-	-	641,250
Prepaid expenses	(29,265)	(110,722)	(391)	(391)	(18,762)
Accounts payable and accrued expenses	(217,921)	(30,511)	84,953	(1,806)	(10,000)
Due to Segregated Portfolios	11,229,281	133,281	(133,281)	-	-
Income from parametric insurance contracts received in advance	-	904,495	(183,837)	-	-
Brokerage and risk management specialist fees payable	-	-	-	-	(48,305)
Participation fee deposits*	-	(75,000)	-	-	(1,000,000)
Due from Core	-	(1,000,396)	(7,182,940)	-	(3,045,945)
Net cash provided by/(used in) operating activities	10,146,999	13,121,405	376,185	294,746	537,545
<b>Investing activities</b>					
Development costs	(1,236,000)	-	-	-	-
Net cash used in investing activities	(1,236,000)	-	-	-	-

**SUPPLEMENTAL INFORMATION**  
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Statement of Changes in Cash Flows (continued)

For the year ended May 31, 2018

(expressed in U.S. dollars)

<b>Net change in cash and cash equivalents</b>	8,910,999	13,121,405	376,185	294,746	537,545
<b>Cash and cash equivalents at the beginning of the year</b>	2,996,744	5,371,300	4,803,867	496,771	1,152,035
<b>Cash and cash equivalents at the end of year</b>	11,907,743	18,492,705	5,180,052	791,517	1,689,580
Interest and dividends received	1,332,251	1,239,949	438,011	152,993	164

\* Non-cash transaction: During the year ended May 31, 2018, the Company approved the set-off of the Government of the Republic of Nicaragua's CA SP refundable participation fee deposit in the amount of \$1,000,000 against Premiums receivable in respect of the 2017/18 coverage.



# Annual Report

2018-19

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