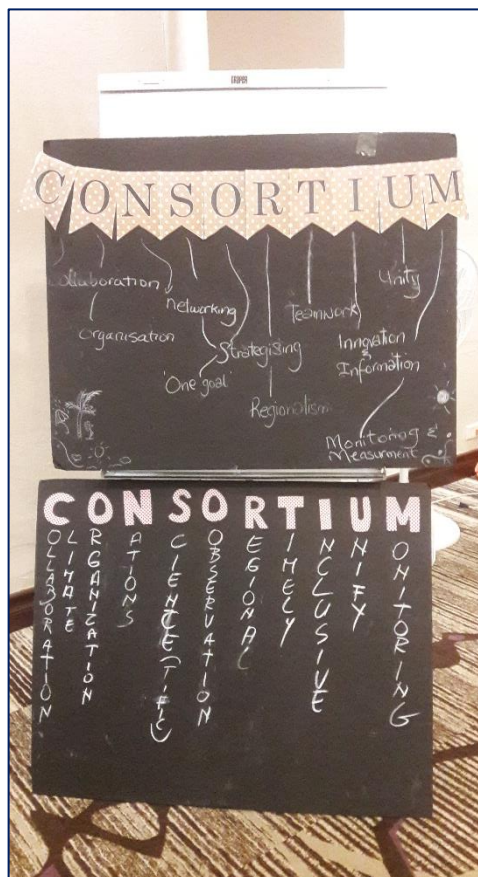




CARIBBEAN
HOTEL & TOURISM
ASSOCIATION

Fifth (5th) Meeting of the Consortium of Regional Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs) Coordination Partners



November 20-21, 2018
Accra Beach Hotel, Christchurch, Barbados

Meeting Report

Prepared by: Roché Mahon and Adrian Trotman¹

¹ Applied Meteorology and Climatology (AMC) Section, Caribbean Institute for Meteorology and Hydrology (CIMH)

Table of Contents

1.	Introduction	3
1.1.	Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs)	3
1.2.	The Consortium of Regional Sectoral EWISACTs Coordination Partners.....	3
1.3.	The Sectoral EWISACTs Roadmap and Plan of Action 2020-2030	4
1.4.	The 5th Consortium Meeting	4
2.	Day 1, Session 1: Looking back.....	5
2.1.	Sectoral EWISACTs: Progress Report (Roché Mahon, CIMH).....	5
3.	Day 1, Session 2: Sectoral EWISACTs Roadmap and Plan of Action	7
3.1.	Presentation of Draft Shared Logic Model: Sectoral EWISACTs Roadmap and Plan of Action (Roché Mahon, CIMH)	7
4.	Day 2, Session 2: Sectoral EWISACTs Roadmap and Plan of Action	9
5.	Day 2, Session 3: Monitoring, Evaluation and Reporting Framework	9
6.	Day 2, Way Forward and Close (Adrian Trotman, CIMH)	9
7.	Conclusion.....	10

1. Introduction

1.1. Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs)

Climate variability and change occur on timescales ranging from sub-seasonal to seasonal to decadal and beyond, making it necessary to develop effective Early Warning Information Systems across Climate Timescales (EWISACTs). Early Warning Systems (EWS) are recognised by the Regional Comprehensive Disaster Management (CDM) Strategy and Programming Framework 2014-2024 and the Implementation Plan for the 'Regional Framework for Achieving Development Resilient to Climate Change' as critical to the effective management of climate-related disasters and adaptation to climate variability and change. EWISACTs can improve the effectiveness and efficiency of sustainable planning, adaptation and mitigation strategies across major weather and climate-sensitive socio-economic sectors. If well aligned with priority sectors, sectoral EWISACTs can support regional growth resilient to climate risks.

1.2. The Consortium of Regional Sectoral EWISACTs Coordination Partners

Fully established in 2017 under the 3 year (2014-2017) United States Agency for International Development (USAID) funded Building Regional Climate Capacity in the Caribbean (BRCCC) Programme, the Consortium of Regional Sectoral EWISACTs Coordination Partners is a key mechanism to drive the co-design, co-development and co-delivery of tailored climate products and services in the agriculture and food security, disaster risk management, energy, health, tourism and water sectors in the Caribbean. Since 2015, the ad hoc meetings of the Consortium have provided an important opportunity for six lead regional technical sectoral agencies² as well as, regional observer organisations³ to raise sectoral and governance issues, positions and recommendations related to weather and climate in a cross-disciplinary context with the Caribbean Regional Climate Centre (RCC). These sessions facilitate the consultative and participatory processes necessary for successful joint EWISACTs development and implementation and are a key enabler of the significant strides made to date towards the development of Sectoral EWISACTs in the region.

² The Caribbean Agricultural Research & Development Institute (CARDI), the Caribbean Disaster Emergency Management Agency (CDEMA), the Caribbean Public Health Agency (CARPHA), the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA), and the Caribbean Water and Wastewater Association (CWWA).

³ The CARICOM Secretariat, the Organisation of Eastern Caribbean States (OECS) Commission, the Caribbean Community Climate Change Centre, the Climate Studies Group at UWI Mona (CSGM) and the Pan American Health Organization (PAHO).

1.3. The Sectoral EWISACTs Roadmap and Plan of Action 2020-2030

A recent assessment of provider and end-user climate capacity in the Caribbean (Mahon & Trotman, 2018)⁴ revealed that there are several gaps on both the end-user and provider sides of the capacity spectrum across the five pillars⁵ of the Global Framework for Climate Services (GFCS)⁶. The Sectoral EWISACTs Roadmap and Plan of Action (RPA) proposes to fill these gaps by articulating the main components of the Consortium's cross-agency portfolio of climate services initiatives for the period 2020-2030. The model will define the 11 year collective goal, outcomes, and outputs that guide the implementation of a coordinated, multi-sectoral climate services portfolio.

Early versions of the working draft of the Roadmap benefitted from a bottom-up approach in which broad stakeholder input was harvested from over 130 sectoral stakeholders at the BRCCC Programme's Close-Out Meeting in June 2017, as well as, the November 2017 Dry Season Caribbean Climate Outlook Forum. The 4th Meeting of the Consortium of Regional Sectoral EWISACTs Coordination Partners on May 22-23, 2018 was the first formal forum for the consideration and advancement of the draft Roadmap and PoA by the Consortium grouping. However, due to time constraints, not much progress was made on advancing an associated MER framework, nor was the planned Consortium discussion on institutional arrangements and resourcing conducted, making additional opportunities to advance the working draft of this key regional guiding document with the specific and targeted input of Consortium representatives necessary.

1.4. The 5th Consortium Meeting

The Fifth (5th) Meeting of the Consortium of Regional Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs) Coordination Partners was made possible through *Enhancing Weather and Climate Early Warning Systems and Impacts-Based Forecasting Platforms in the Caribbean Project* funded by the African Caribbean Pacific-European Union-CDB-Natural Disaster Risk Management in CARIFORUM Countries Programme (ACP-EU-CDB NDRM) with further support from the Climate Risk Early Warning Systems (CREWS) project funded by the World Bank and executed by the World Meteorological Organization (WMO). The two day meeting took place at the Accra Beach Hotel, Christchurch, Barbados on November 20-21, 2018 and was the second formal forum for the consideration and advancement of the draft Roadmap and PoA by the Consortium grouping.

⁴ This report can be accessed here: http://rcc.cimh.edu.bb/files/2018/06/Summary-Report_Provider-and-Enduser-capacity-assessment_Carib-climate-services.pdf

⁵ 1) Observations and Monitoring; 2) Research, Modelling and Prediction; 3) Climate Services Information System; 4) User Interface Platform; and 5) Capacity Development.

⁶ The GFCS was formulated by the World Meteorological Organization and its partners and is the main source of global guidance on climate services.

The specific objectives of the meeting were:

1. To report on progress to date (June-Nov 2018) on the development of sectoral EWISACTs;
2. To review and advance the draft shared Logic Model for the Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services; and
3. To review and advance the draft Monitoring, Evaluation and Reporting (MER) framework of the Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services.

A total of 23 participants engaged in discussions over two days (see Appendix B). Participants included Consortium partners (CARDI, CWWA, CARPHA, CTO); key observer organisations such as the OECS Secretariat, the CCCCC, the PAHO, and the UWI CSGM; as well as other regional and national stakeholder organisations (the CMO Headquarters Unit, AACARI, the Saint Vincent and the Grenadines National Emergency Management Organisation, the Antigua Public Utilities Authority, the Barbados Meteorological Service, the Barbados Ministry of Health, the Barbados Department of Emergency Management, and the Barbados Water Authority).

The meeting was carried out according to the meeting agenda (see Appendix A). The meeting proceedings included presentations and guided discussions over three (3) sessions.

2. Day 1, Session 1: Looking back

2.1. Sectoral EWISACTs: Progress Report (Roché Mahon, CIMH)

Dr. Roché Mahon reported on progress made for the period June-November 2018. Main achievements for the period included:

- Updates to the new Sectoral EWISACTs webpage (rcc.cimh.edu.bb/ewisacts) - a resource hub that houses key conceptual and implementation documents, research documents and hyperlinks to sector-specific climate bulletins, among other things;
- Updates to the Caribbean Climate Impacts Database – specifically, harvesting and synthesis of over 9000 climate-related impacts from over 100 secondary documents into Google sheets repository;
- Research and publications:
 - Health-Climate:**
 - Development of a climate driven spatio-temporal modelling framework for vector-borne diseases***
 - Published :
 - Lowe R, Gasparrini A, Van Meerbeeck CJ, Lippi CA, Mahon R, Trotman AR, Rollock L, Hinds AQJ, Ryan SJ, Stewart-Ibarra AM (2018) Nonlinear and

delayed impacts of climate on dengue risk in Barbados: A modelling study. *PLoS Med* 15(7): e1002613. <https://doi.org/10.1371/journal.pmed.1002613>

- In press:
 - Trotman A, Mahon R, Shumake-Guillemot J, Lowe R, Stewart-Ibarra AM. Strengthening climate services for the health sector in the Caribbean. WMO Bulletin 67 (2).
- In development:
 - Stewart-Ibarra AM, Romero M, Hinds AQJ, Lowe R, Mahon R, Rollock L, St. Ville S, Ryan SJ, Trotman A, Borbor-Cordova MJ. Co-developing climate services for public health: stakeholder needs and perceptions for the prevention and control of Aedes-transmitted diseases in the Caribbean. Manuscript in development for submission to PLOS NTDs.
 - IRI and CIMH. Variability and predictability of heat extremes in the Caribbean in support of climate services for public health. Manuscript in development

Tourism-Climate:

Development of a climate driven spatio-temporal modelling framework for tourism

- Support to CTO with Research Consultancy team recruitment
- TCB testing at CTO/CDB CSSTI Regional Training and Sensitisation Workshop, Oct 2018

Social science:

- Mahon, R., Greene, C., Cox, S.-A., Guido, Z., Gerlak, A., Petrie, J., Trotman, A., Liverman, D., Van Meerbeeck, C. J., Scott, W. & Farrell, D. (Under revision for re-submission in Dec 2018). A new role: Are National Meteorological and Hydrological Services in the Caribbean Fit for the Purpose of Climate Services? *Climate Services*.
- In press: Mahon, R., Farrell, D., Cox, S., Trotman, A., Van Meerbeeck, C.J., and Garfield Barnwell (2017). Climate Services and Caribbean Resilience: A Historical Perspective. SES, Vol. 67: 2&3.

Climate science:

- Van Meerbeeck, CJ, Trotman, A, Mahon R. Chapter 6, State of Climate Report, "Climate Extremes and Early Warning: From excessive rainfall and flooding to drought, heat and hurricanes"
- Trotman, A, Mahon R and Van Meerbeeck, CJ. Chapter 8, State of Climate Report, "Adding value to climate information through services"

Operational sector-specific bulletins:

- Quarterly Tourism Climatic Bulletin and Health Climatic Bulletin: Vol 2, Issue 2 & 3 (June-July-August and Sept-Oct-Nov 2018);
- Monthly Agro-Climatic Bulletin: Vol 2, Issues 1-5;
- Other:**
 - 4th Consortium Meeting Report
- Presentations - 2 posters presented at American Society for Tropical Medicine and Hygiene Climate and Health Symposium Meeting, October 2018; CIMH participation in a panel presentation and discussion at ASTMH Symposium Meeting; CIMH presentation at the 3rd Global Conference on Health and Climate Change, October 2018; and
- Updated copy of the draft Sectoral EWISACTs Roadmap and PoA 2020-2030.

3. Day 1, Session 2: Sectoral EWISACTs Roadmap and Plan of Action

3.1. Presentation of Draft Shared Logic Model: Sectoral EWISACTs Roadmap and Plan of Action (Roché Mahon, CIMH)

Dr. Mahon introduced this presentation by giving an overview of the multi-phase participatory process underpinning the development of the Sectoral EWISACTs Roadmap and PoA. She highlighted that the process of developing the Roadmap and Plan of Action integrates research insights from the user and provider assessments collected between 2015/2016. It is these insights that inform the Caribbean's baseline on needs and gaps that underpins future interventions. Dr. Mahon showcased a high level view of the Roadmap draft including its revised Goal of "Increased resilience of climate-sensitive sectors in the Caribbean", as well as, its 4 Outcome Areas of:

1. Strengthened institutional context for climate risk management at regional, national and sectoral scales;
2. Harmonised climate and sectoral information production systems across climate timescales;
3. Increased generation of tailored, sector-specific climate information at regional and national scales; and
4. Improved sectoral decision-making for climate risk management at regional and national scales.

Dr. Mahon then guided participants through the draft text of Sections 1-5 of the Roadmap document, taking note of and/or integrating suggested changes tabled by stakeholders. She invited meeting participants to form national and regional working groups to complete the following tasks related to Section 6 of the draft Roadmap:

1. Validate existing strategic and operational **gaps** that will be addressed in the 11 year implementation period;

2. Review, validate and refine draft **Outputs** that address gaps to Outcome Areas within the 11 year implementation period.

Figures 1 and 2 illustrate the regional and national stakeholder groups at work.



Figure 1. The regional stakeholder Working Group deliberates the draft Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services 2020-2030



Figure 2. The national stakeholder Working Group deliberates the draft Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services 2020-2030

4. Day 2, Session 2: Sectoral EWISACTs Roadmap and Plan of Action

The review and validation of Section 6 of the Sectoral EWISACTs Roadmap and Plan of Action continued on Day 2. At the end of this process, both regional and national stakeholder Working Groups submitted a number of consensus-based prioritised Outputs that address current critical gaps vis-à-vis the five GFCS pillars. Although a demanding task, this was a significant achievement in the concretization and advancement of the Roadmap's Plan of Action since it facilitated the consideration and balancing of both national and regional level perspectives in the determination of the Roadmap's finalised outputs.

To close the session, Dr. Mahon then guided participants through the draft text of Sections 7-10 of the Roadmap document, taking note of and/or integrating suggested changes tabled by stakeholders.

5. Day 2, Session 3: Monitoring, Evaluation and Reporting Framework

In this session, Dr. Mahon showcased a worked example of the draft MER framework from the User Interface Platform Pillar of the GFCS. Importantly, she outlined the connections between gaps, proposed outputs, key performance indicators, baselines, targets and actors responsible in the draft example. Meeting participants were invited to comment and make inputs on the evolving MER framework.

6. Day 2, Way Forward and Close (Adrian Trotman, CIMH)

Chair of the meeting, Mr. Adrian Trotman reiterated the next steps arising from the meeting as follows:

Ref.	Item	Responsibility
1.	CIMH to further synthesise and polish the working draft for presentation to the 2018 Dry Season CariCOF on November 23, 2018	CIMH
2.	CIMH to share the next iteration of the draft (with CariCOF inputs) for further review by Consortium partners before the next Consortium meeting	CIMH

Mr. Trotman closed the meeting by thanking everyone for their continued support to the Sectoral EWISACTs development process, and particularly to the long-term Sectoral EWISACTs Roadmap and Plan of Action for Climate Services.

7. Conclusion

The 5th Meeting of the Consortium fulfilled its expected outcome of increasing engagement of regional and national stakeholders from six climate-sensitive sectors in the co-development of a consensus-based strategic inter-institutional Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services. The Meeting facilitated regional level accounting of the progress to date on the development of sectoral EWISACTs; facilitated a detailed review and consensus-based advancement of all sections of the draft inter-institutional Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services 2020-2030; as well as the Roadmap's emerging MER framework. Importantly, the Meeting preceded the 2018 Dry Season Caribbean Climate Outlook Forum (CariCOF) which continued to build consensus with multiple national-level practitioner communities around the updated draft of the Climate Services Roadmap and Plan of Action for the Caribbean emerging from the 5th Consortium Meeting.

All available meeting outputs including: 1) all presentations made at the 5th Consortium meeting; and 2) an augmented and revised draft of the 11 year Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services 2020-2030 can be downloaded at the following link:
https://owncloud.cimh.edu.bb/index.php/apps/files/?dir=/5th%20Consortium%20Meeting_Nov%202018&fileid=79088

APPENDIX A: Meeting Agenda



This project was undertaken with the financial support of
On behalf of the United States Agency for International Development
Environment and
Climate Change Canada
Environnement et
Changement climatique Canada



Fifth (5th) Meeting of the Consortium of Regional Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs) Coordination Partners

AGENDA

Accra Beach Hotel
Christ Church, Barbados

20 - 21 November, 2018

MEETING OBJECTIVES:

1. To report on progress to date (June-Nov 2018) on the development of sectoral EWISACTs;
2. To review and advance the draft shared Logic Model for the Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services; and
3. To review and advance the draft Monitoring, Evaluation and Reporting (MER) framework of the Sectoral EWISACTs Roadmap and Plan of Action for Caribbean Climate Services.



CARIBBEAN
HOTEL & TOURISM
ASSOCIATION



This project was undertaken with the financial support of:
 Or projet a été réalisé avec l'appui financier de:
 Environment and Climate Change Canada / Environnement et Changement climatique Canada



MEETING AGENDA:

Day 1: Tuesday, 20 November 2018

TIME	SESSION		RESOURCE PERSON/AGENCY
0830 - 0900	Arrival and registration		All
0900 - 1200	CREWS Session		All
1200 - 1300	LUNCH BREAK		
1300 - 1310	Welcome remarks		Adrian Trotman, CIMH
1310 - 1320	Session 1: Progress Report	Sectoral EWISACTs: Progress to date	Roché Mahon, CIMH
1320 - 1340	Session 2: Sectoral EWISACTs Roadmap and Plan of Action	Presentation of Revised Draft Shared Logic Model: Sectoral EWISACTs Roadmap and Plan of Action	Roché Mahon, CIMH
1340 - 1530	Plan of Action	Plenary session (review and editing of master document)	All
1530 - 1545	COFFEE BREAK		
1545 - 1655	Session 2: Sectoral EWISACTs	Plenary session (review and editing of master document)	All
1655 - 1700	Roadmap and Plan of Action (Continued)	Summary and Close	Adrian Trotman/Roché Mahon, CIMH



CARIBBEAN
HOTEL & TOURISM
ASSOCIATION



Day 2: Wednesday, 21 November 2018

TIME	SESSION		RESOURCE PERSON/AGENCY
0830 - 0900	Arrival and Networking		All
0900 - 0910	Recap of Day 1 and intro to Day 2 sessions		Adrian Trotman/ Roché Mahon, CIMH
0910 - 1030	Session 2: Sectoral EWISACTs Roadmap and Plan of Action (Continued)	Plenary session (review and editing of master document)	All
1030 - 1045	COFFEE BREAK		
1045 - 1100	Session 3: Monitoring, Evaluation and Reporting Framework	Presentation of Draft Monitoring, Evaluation and Reporting (MER) Framework	Roché Mahon, CIMH
1100 - 1230		Working group session (review and editing of master document)	All
1230 - 1330	LUNCH		
1330 - 1530	Session 3: Monitoring, Evaluation and Reporting Framework (Continued)	Plenary discussion (review and editing of master document)	All
1530 - 1545		COFFEE BREAK	
1545 - 1645		Plenary discussion (review and editing of master document)	All
1645 - 1700		Way Forward and Close	Adrian Trotman, CIMH



CARIBBEAN
HOTEL & TOURISM
ASSOCIATION

APPENDIX B: Participant List

Ref.	Organisation	Last name	First name	Email contact
1.	CTO	Smith	Sean	ssmith@caribtourism.com
2.	CARDI	Hall-Hanson	Rasheeda	rhanson@cardi.org
3.	CARPHA	Robertson	Lyndon	robertly@carpha.org
4.	CCCCC	Jones	Albert	ajones@caribbeanclimate.bz
5.	OECS Commission	Isaac	Cornelius	cornelius.isaac@oecs.int
6.	CMO	Laing	Arlene	alaing@cmo.org.tt
7.	CSGM	Whyte	Felicia	whyfelicia@gmail.com
8.	CWWA	Hosein	Candi	chosein@cwwa.net
9.	AACARI	Brown	Claude	jugob@candw.ms/aacariregion@gmail.com
10.	Barbados Met Service	Murray	Brian	danvex@hotmail.com
11.	Barbados DEM	Harewood	Robert	robert.harewood@barbados.gov.bb
12.	Barbados MOA	Wiltshire	Colin	crwiltshire@yahoo.com
13.	Barbados MOH	Rollock	Leslie	Leslie.Rollock@health.gov.bb
14.	BWA	Paul	Jaime	jaime.paul@bwa.gov.bb
15.	BWA	Austin	Nicole	nicole.austin@bwa.gov.bb
16.	Antigua Public Utilities Authority	Yearwood	Veronica	veronica@apua.ag/ veronicayearwood@gmail.com
17.	SVG NEMO	Forbes	Michelle	nemosvg@gmail.com / nemosvg@gov.vc
18.	PAHO	Vlugman	Adrianus	vlugmana@paho.org
19.	CIMH	Trotman	Adrian	atrotman@cimh.edu.bb
20.	CIMH	Mahon	Roché	rmahon@cimh.edu.bb
21.	PPCR Consultant at CIMH	Petrie	Jodi-Ann	jpetrie@cimh.edu.bb
22.	CIMH Intern	Brathwaite	Cherise	cbrathwaite@cimh.edu.bb
23.	CIMH Intern	Brown	Pietra	pbrown@cimh.edu.bb