



Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs) Close-Out Meeting

June 1-2, 2017

**Beachcombers Hotel
St. Vincent and the Grenadines**

Meeting Report

Prepared by:

Roché Mahon and Shelly-Ann Cox, CIMH

INTRODUCTION

The Sectoral Early Warning Information Systems across Climate Timescales (EWISACTs) Close-Out Meeting was held in St. Vincent and the Grenadines at the Beachcombers Hotel, on June 1-2, 2017. The objectives of the meeting were:

- Day 1: To showcase new and enhanced climate information products; and
- Day 2: To map the way forward for the continued development of Sectoral EWISACTs.

In general, this meeting provided an opportunity for cross-sectoral dialogue between climate service providers and regional and national stakeholders from climate-sensitive sectors. It also advanced discussions around the Sectoral EWISACTs Plan of Action.

The meeting was carried out according to the meeting agenda (see Appendix A). The meeting proceedings included presentations, interactive sessions, focus group discussions and the Sectoral EWISACTs Expo.

A total of 57 participants attended the meeting over two days (see Appendix B). Stakeholders across a number of sectors were represented, including Agriculture, Water, Tourism, Energy, Disaster Risk Management and Health.

DAY 1

Welcome Remarks, Dr. David Farrell, CIMH

Dr. David Farrell, Principal of CIMH gave a warm welcome to the meeting's participants and expressed his appreciation for their continued support. He began by stating that although this was the Sectoral EWISACTs Close Out Meeting under the BRCCC Programme, it really was a significant milestone in the continued co-development and co-delivery of climate services with sectoral partners. He continued by giving an overview of the history of climate services in the Caribbean. Dr. Farrell expressed his satisfaction with the progress made to date on the Sectoral EWISACTs portfolio, highlighting the formalization of the Consortium through the signing of the Letter of Agreement by 6 regional sector agencies. He closed by offering recommendations for the way forward.

Remarks - Elizabeth Riley, CDEMA

Ms. Elizabeth Riley, Deputy Executive Director of the Caribbean Disaster Emergency Management Agency (CDEMA), echoed Dr. Farrell's remarks. She opened by stating that she viewed the Close-Out Meeting as a transition of the EWISACTS portfolio from a project environment into the mainstream programming of all the partner institutions. During her speech, she offered the meeting three thoughts. Her first thought was that EWISACTS is about security of the livelihoods and the safety of Caribbean people. She stated that CDEMA as the EWISACTS partner in Disaster Risk Management has seen the

benefits of partnership and provided two examples of how the Agency's scenario and response planning has been honed by the application of CIMH modelling products developed under the umbrella of the Global Framework for Climate Services. Ms. Riley's second thought related to the value of functional cooperation. In this regard, sectoral EWISACTS like the CDEMA System and the CDEMA-led Strategy on Comprehensive Disaster Management recognises the need for inter-sectoral conversations around the integration of climate services into specific sectors. Finally, Ms. Riley called for sustainability through EWISACTS partners institutionalising the EWISACTS process at the programmatic level with appropriate resourcing allocations – human, physical and financial. She indicated that at CDEMA, the EWISACTS agenda has been integrated into the Agency's 2017-2020 Corporate Plan. Ms. Riley closed by thanking the CIMH team and by pledging CDEMA's support in the continued development of the Sectoral EWISACTs portfolio.

Feature Address, Hon. Camillo Gonsalves, Minister of Economic Planning, Sustainable Development, Industry, Information and Labour, St. Vincent and the Grenadines

The Hon Camillo Gonsalves began by expressing his gratitude for the invitation to deliver the address at such an important meeting. He spoke to the vulnerability of Caribbean islands to hydro-meteorological hazards and emphasized the importance of building resilience. He outlined some of the vulnerabilities of St. Vincent and the Grenadines and the efforts being made to improve the structural integrity of bridges and buildings. He also outlined policies and institutional arrangements that have been implemented to support resilience building. He reflected on the extreme rainfall events in the recent memory of Vincentians and the importance of having early warning systems in place to reduce impacts. He closed by stating that he looked forward to the outcomes of the meeting.

Vote of Thanks, Shermaine Clauzel, CARPHA

Mrs. Shermaine Clauzel began by expressing her gratitude to the speakers for their insightful remarks. She continued by stating that CARPHA looked forward to continuing the partnership with CIMH and other sectoral partners in the development of the Sectoral EWISACTs portfolio. Mrs. Clauzel closed by offering best wishes for a successful meeting.

Meeting objectives and review of agenda, Dr. Roché Mahon, CIMH

In her review of the meeting objectives and agenda, Dr. Roché Mahon noted that the Sectoral EWISACTs Close-Out meeting gave the team at CIMH an opportunity to showcase new and enhanced climate information products developed with the support of the BRCCC Programme, as well as, to map the way forward for the continued development of the sectoral EWISACTs portfolio beyond the BRCCC Programme. These were the 2 main objectives of the two day meeting with Day 1 being dedicated to showcasing achievements and Day 2 giving participants an opportunity to develop a plan for the future.

Supporting Early Warning Information Systems Across GFCS Pillars, Dr. David Farrell, Adrian Trotman, Shawn Boyce, Dr. Cédric Van Meerbeeck, Shontelle Stoute, Wayne Depradine, Dr. Shelly-Ann Cox and Dr. Roché Mahon, CIMH

The CIMH has been building out the infrastructure that is foundational to supporting sectoral EWISACTs for the past 50 years. This synthesis presentation delivered by several members of the CIMH team showcased the BRCCC Programme's contribution to the new and existing work at the Institute that advanced the further development of early warning information systems across the five Global Framework for Climate Services (GFCS) Pillars in the Caribbean context. The presentation emphasised that with the support of the USAID funded BRCCC Programme, progress has been made across all 5 GFCS pillars in the following ways:

– Expansion of monitoring and observations systems

- Installation of 6 Automatic weather stations with GOES satellite communication; 12 GPRS / 4 GOES satellite water level stations; and 9 GPRS Soil moisture/temperature and rainfall stations;
- Enhancement of the data archiving, management, delivery and presentation aspects of a climate data management system for 16 CMO Member States, as well as, associated training;
- Strengthening CIMH remote sensing capacity through a CIMH visit to the Cooperative Institute for Research in the Atmosphere (CIRA) (March 29 - April 1, 2016) that focused on various satellite products for research and operational use, as well as, strengthening of national remote sensing capacity through a CIMH and CIRA hosted training workshop (May 3 - May 6, 2016);
- Advancement of the use of Geographic Information Systems for operational product development and mapping (eg. SPI computations, Temperature Anomalies computations and mapping, Precipitation and Temperature Outlooks mapping , SPEI computations and mapping) at CIMH; and
- Upgrading of the Caribbean Climate Impacts Database.

– Enhancement of physical and social science modelling and research capacity

- Development of new (eg. accumulated rainfall graphs; mean temperature monitor, Wet days/wet spells outlooks; Caribbean Climate Outlook Forum (CariCOF) precipitation and temperature outlook verification maps), enhanced (eg. SPI monitoring maps as GIS layers), and experimental climate early warning information products (eg. heat outlooks);
- Advancement of ENSO and drought research at CIMH in collaboration with major research partners including Caribbean national meteorological and hydrological services (NMHSs), the International Research Institute for Climate and Society (IRI), the University of Reading, the US National Oceanic and Atmospheric Administration (NOAA), the US National Drought Mitigation Center (NDMC);
- Conduct of preliminary research in collaboration with the State University of New York (SUNY) and national climate and health stakeholders in Barbados and Dominica towards the

development of a climate-driven modelling framework for the Caribbean that will provide spatio-temporal probabilistic forecasts of *Aedes aegypti* abundance - an indicator of the risk of transmission of dengue fever, Zika fever, and Chikungunya; and

- Conduct of social science research focused on understanding sectoral user needs and provider capacity to deliver user-oriented climate services in the Caribbean.

– *Technological advances made in automating the generation of climate products*

- Automation and standardisation of climate outlook production through the development of the new CariCOF Outlook Generator (CAROGEN) software program;
- Integration of a) Drought Monitoring, b) Sea Surface Temperatures, c) Coral Bleaching Area Alert, and d) Climate Outlooks into the Caribbean DEWETRA platform;
- Development of the website for the Regional Climate Centre (RCC) (<https://rcc.cimh.edu.bb/>) – a “one-stop shop” for all general information about the RCC, climate products, Bulletins, data services and Programme information on the BRCCC, CariCOF, and Environment and Climate Change Canada projects and programmes.

– *Improvements to user interface and dissemination mechanisms; and*

- Formation of the Consortium of Regional Sectoral EWISACTs Coordination Partners - a key regional mechanism to champion the design, development and delivery of tailored climate products and services in the agriculture and food security, disaster risk management, energy, health, tourism and water sectors;
- Convening of multiple regional level CariCOFs and national climate outlook forums (NCOFs) (in Guyana, Suriname, Trinidad and Tobago, Belize);
- Piloting of the Participatory Integrated Climate Services Agriculture (PICSA) approach in the Caribbean (specifically in Guyana) with the Walker Institute of the University of Reading and associated training for regional and national stakeholders;
- Development of the Caribbean Society for Agricultural Meteorology (CariSAM) portal - a professional community supported by an *interactive online portal* which is designed to enhance collaboration and dialogue between the Caribbean agricultural and food security community (including forestry), and meteorologists and climatologists;
- Co-development of three sector-specific climate bulletins with regional Consortium partners: 1) the enhanced Caribbean Agro-Climatic Bulletin of the CariSAM (formerly the Regional CAMI Bulletin); 2) the new New Health-Climatic Bulletin; and the new Tourism-Climatic Bulletin.

– *Capacity building on both the provider and user sides of the climate services spectrum*

- Convening of a regional workshop in Barbados in February 2016 which brought meteorologists and sector practitioners together to investigate correlations between sectoral outcome indices and observed climate extreme indices using ClimPACT software;

- Convening of three media training sessions to help regional journalists and meteorologists build their capacity to tell effective climate and weather stories;
- Capacity building attachments and exchanges to enhance the expertise of Caribbean practitioners by working alongside and building working relationships with cutting edge institutions. Examples include exchanges in seasonal forecasting skills with Columbia University's International Research Institute for Climate and Society (IRI); drought monitoring skills enhanced at the University of Nebraska, Lincoln, USA; drought forecasting with the National Oceanic and Atmospheric Administration (NOAA), USA; social sciences research into enhancing climate services with the University of Arizona; satellite data and applications capacity building with the Colorado State University; and skills at CIMH and the HydroMet Service of Guyana enhanced in statistics, used in ENSO research and PICSA with the University of Reading and Statistics for Sustainable Development (SSD);
- Convening of five Sectoral EWISACTs National Workshops with more than 180 national participants in Barbados (Nov 2015); Trinidad and Tobago (Feb 2016); Dominica (March 2016); Belize (June 2016); Jamaica (Dec 2016); and
- Convening of four drought management writeshops in Grenada, St. Lucia, Antigua & Barbuda, St. Kitts & Nevis.

The full presentation of BRCCC Programme supported achievements can be accessed here: <https://owncloud.cimh.edu.bb/index.php/s/TrcXGXu8tTZfU5B>

Participatory Integrated Climate Services for Agriculture (PICSA)

Dr. Peter Dorward from the Walker Institute of the University of Reading made a brief presentation on the concept of PICSA. He outlined that the PICSA approach aims to facilitate farmers to make informed decisions based on accurate, location-specific, climate and weather information; locally relevant crop, livestock and livelihood options; and with the use of participatory tools to aid their decision making. He stated that due to the location-specific nature of PICSA there are a number of preparatory activities that need to be completed before field staff are trained in the approach. He explained that PICSA was piloted in South Sahara, Africa in 2011. Since then, the approach continues to develop and is further tailored to specifically adapt to each country in which it is executed. Dr. Dorward informed that under the BRCCC Programme, PICSA was piloted in Guyana with an expected roll out in the Caribbean. He noted that representatives from the University of Reading along with a team from the CIMH first visited Guyana in February 2017 to examine local conditions to determine whether PICSA could be adopted as a pilot project.

After a successful scoping visit, a Training of Trainers (ToT) workshop was scheduled for May 2017. During May 15-19th, 2017 at the Herdmanston Lodge Hotel representatives from the Caribbean Agriculture Research and Development Institute (CARDI), the University of Reading, the Hydrometeorological Service of Guyana (Hydromet) and the Caribbean Institute for Meteorology and Hydrology (CIMH) facilitated the ToT workshop. Representatives from the Hydromet, National

Agriculture Research and Extension Institute (NAREI), Guyana Livestock Development Authority (GLDA), The Guyana Marketing Corporation (GMC), Pesticide Board, The Guyana Rice Development Board (GRDB), The Guyana Sugar Corporation (GuySuCo), the Guyana School of Agriculture (GSA) and the North Rupununi District Development Board (NRDDDB) participated in the workshop. The participants were exposed to interactive sessions, discussions and field exercises during that week. Field exercises involved a trip to 'Now or Never' (farming community), where participants were given the opportunity to use the PICSA approach to engage a group of farmers.

Dr. Dorward remarked that he was extremely pleased with the success of the workshop and the great feedback received from the farmers and other stakeholders in Guyana. He closed by expressing his thanks to the BRCCC Programme for the opportunity and stated that he looked forward to the rollout of PICSA in the Caribbean.

Towards the development of a Caribbean vector proliferation model

Dr. Mercy Borbor-Cordova began her presentation with an overview of the dengue, Chikungunya and Zika viruses - all vector-borne diseases transmitted by the *Aedes Aegypti* mosquito. After talking briefly about the transmission cycle of vector-borne diseases, Dr. Borbor-Cordova noted that the *Aedes Aegypti* mosquito is sensitive to climate conditions such as temperature - making way for the opportunity to develop climate-driven spatio-temporal models that will ultimately provide spatiotemporal probabilistic forecasts of *Aedes aegypti* abundance, an indicator of the risk of transmission of dengue fever, Zika fever, and Chikungunya. She explained that this is the work that is collaboratively being conducted in 3 phases in the Caribbean case study islands of Barbados and Dominica and reported on progress made to date.

Strengthening the Energy-Climate Nexus: Building-Resilience and Resilience-Building

This presentation delivered by Dr. Devon Gardner, Programme Manager for Energy and Head of the Energy Unit at the CARICOM Secretariat (representing the Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE)) provided an overview of the CCREEE's work programme that seeks to strengthen the Energy-Climate Nexus through "Building-Resilience and Resilience-Building".

Official Launch of Sectoral Climatic Bulletins

Dr. Shelly-Ann Cox led this brief session that launched 2 new and 1 enhanced sectoral climatic bulletin for the health (<http://bit.ly/CaribHCB>), tourism (<http://bit.ly/TCB2k17>) and agriculture (<http://bit.ly/CariSAM>) sectors respectively. Dr. Cox introduced participants to these new and enhanced bulletins, and also demonstrated how to access them freely online from the CIMH's Regional Climate Centre (RCC) website. She noted that the bulletins should shortly become available through CARDI, CARPHA, CTO and CHTA media dissemination channels. In closing, Dr. Cox thanked sectoral partner representatives, as well as, CIMH staff that were an integral part of the development to the bulletins over the past two years.

Sectoral EWISACTs Expo

The Sectoral EWISACTs Expo was designed to give CIMH and its Consortium sectoral partners an opportunity to present and promote generic and sector-specific climate information products and services developed or enhanced under the BRCCC Programme in an Expo styled format. Five (5) booths, each representing a different aspect of the sectoral EWISACTs portfolio were on display as follows:

Booth 1: Consortium of Regional Sectoral EWISACTs Partners

Booth 1 featured the Terms of Reference, as well as, Letter of Agreement across the Consortium of Regional Sectoral EWISACTs Partners, a slideshow of various head of agency signing ceremonies throughout 2016 and 2017, and reports from the series of Consortium meetings convened by CIMH (2015-2016). Media articles featuring Consortium meetings and signing ceremonies were also on display. The booth also featured the International Conference on Climate Services (ICCS) 5 academic poster entitled “A model for the co-production of user-driven climate early warning information: Insights from the Caribbean.” This poster positioned the Consortium as a model for the co-production of user-driven climate early warning information, highlighting the features of the Consortium, early successes, challenges and lessons learnt. Ms. Elizabeth Riley, Deputy Executive Director of the Caribbean Disaster Emergency Management Agency (CDEMA) and Drs. Shelly-Ann Cox and Roché Mahon, Postdoctoral Researchers at CIMH, facilitated visitor traffic at this Booth.

Booth 2: Agriculture

Booth 2 featured a poster-sized copy of the Agro-climatic Bulletin of the Caribbean Society of Agro-Meteorology (CariSAM), an interactive display of the CariSAM portal, and general resources showcasing the Participatory Integrated Climate Services for Agriculture (PICSA) initiative. Also featured was CARDI’s climate-related research posters. CariSAM product information sheets and copies of the Agro-climatic Bulletin were available as handouts. Mr. Kistian Flemming from the Caribbean Agriculture Research and Development Institute (CARDI), Dr. Peter Doward of the University of Reading, as well as, three CIMH representatives (Adrian Trotman, Shontelle Stoute and Lisa Kirton-Reed) facilitated visitor traffic at this Booth.

Booth 3: Health

Booth 3 featured a poster-sized copy of the new Health-Climatic Bulletin, Caribbean Public Health Agency’s (CARPHA) climate-related materials and posters, an interactive display of CIMH’s information products on dust and sand storm warning and alerting system, as well as information about the CIMH/SUNY research on a new climate-driven vector proliferation model for the Caribbean. Copies of the Health-Climatic Bulletin were also available as handouts. Ms. Shermaine Clauzel (CARPHA), Dr. Mercy Borbor-Cordova of the State University of New York, and two CIMH staff members (Dr. Andrea Sealy and Mr. Wayne Depradine) facilitated visitor traffic at this Booth.

Booth 4: Tourism

Booth 4 featured an interactive display of the new Tourism-Climatic Bulletin, CTO climate-related resources and illustrations of the implications of climate variability on the tourism sector. Copies of the latest issue of the Caribbean Coral Reef Watch (CRW) Bulletin, an overview of the new CDB supported CTO and CIMH collaborative research project that will explore historical evidence of the influence of climate on tourist arrivals in the Caribbean, and the Caribbean CRW product information sheet were available as handouts. Ms. Amanda Charles from the Caribbean Tourism Organization (CTO) and two CIMH representatives (Dr. Roché Mahon and Ms. Jodi-Ann Petrie) facilitated visitor traffic at this Booth.

Booth 5: Meet a Climate Scientist

Booth 5 provided a forum for meeting participants to interact with some of the climatology staff responsible for developing a range of climate early warning information products on an operational basis. On display were product information sheets and posters showcasing the range of CIMH generated monitoring and forecast products, tools and operational systems such as the Drought Early Warning Information System. Dr. Cédric Van Meerbeeck and Ms. Wazita Scott facilitated visitor traffic at this Booth.

See Appendix C for picture highlights.

DAY 2

Stakeholder Feedback Session

This brief opening session began with an overview presentation of the feedback comments harvested from the Sectoral EWISACTs Expo (see Appendix D for a summary). Dr. Shelly-Ann Cox and Dr. Roché Mahon then invited feedback from the audience and facilitated the ensuing discussion.

User needs assessment of climate services in the Caribbean, Shelly-Ann Cox, CIMH

Dr. Shelly-Ann Cox presented the results of a regional study focused on the climate information needs of users in 6 sectors across 19 Caribbean countries. In her opening comments, Dr. Cox noted that producing climate information in a form that can be readily used requires that needs for and capabilities of end users to incorporate climate information into routine decisions is understood. However, there are currently insufficient baselines in the Caribbean to inform climate information product development and tailoring for climate sensitive sectors. The study therefore sought to enhance understanding of climate information availability and use or lack thereof.

After providing an overview of previous international and Caribbean specific work on the barriers contributing to the disconnect between the available information and the needs of users, Dr. Cox discussed the three main barrier types discovered in the Caribbean context namely:

1. Barriers related to user knowledge/capacity gaps,
2. Barriers related to the nature and quality of climate information, and
3. Barriers related to gaps in the provider-user relationship.

Dr. Cox also shared enablers related to the use of climate information, discussed recommendations to improve the use of climate information and priorities for possible future sector-specific products as articulated by sectoral users. In closing, she noted that (i) there are similarities, as well as, variations in climate information needs across sectors, (ii) there is a clear role for the NMHSs and the CIMH as climate information providers in raising sectoral awareness of and building sectoral capacity to use climate early warning information going forward, and (iii) CIMH's thrust to develop sectoral EWISACTs that seek to design, develop and deliver sector-specific climate information is timely. In closing, Dr. Cox noted that these results will be translated into academic publications to be shared with the global climate services community. They will also be used to guide the CIMH's own operational work related to research and development around new and enhanced sectoral climate information.

Provider capacity to deliver climate services in the Caribbean, Roché Mahon, CIMH

Dr. Roché Mahon presented the research results related to a capacity assessment of 22 Caribbean National Meteorological and Hydrological Services (NMHSs) to implement climate services in the Caribbean. Dr. Mahon explained that the assessment is framed around the NMHSs strengths and challenges in executing the five core pillars of the Global Framework for Climate Services (GFCS). In her presentation, Dr. Mahon noted that the preliminary findings suggested that individual NMHSs which have focused historically on meteorology will likely experience knowledge and expertise gaps in their implementation of climate services that predominantly relate to the production, translation, transfer, and the facilitation of the use of climate knowledge. Many of these gaps have historical roots and are grounded in disconnects and inefficiencies across the prevailing legal, political and institutional framework in which NMHSs operate. Strategic investments in the Caribbean NMHS network should therefore consider addressing historically systemic gaps while enhancing capacity in a number of operational areas that support the co-production of user-oriented climate information. In closing, Dr. Mahon noted that these results will be the subject of an upcoming academic paper to be published in collaboration with the University of Arizona. She hoped that the results could also help CIMH and donor partners to focus their future NMHS institutional building efforts.

Setting the stage for a Sectoral EWISACTs Roadmap, Roché Mahon, CIMH

Dr. Mahon delivered a brief overview of the expectations of the participatory exercise that was designed to give participants an opportunity to contribute to the future development of the sectoral EWISACTs portfolio. She noted that this was a natural output of the Close-Out meeting since stakeholders on both sides of the climate services spectrum i.e. users and providers were represented at the meeting. Dr. Mahon further noted that the input of sectoral representatives and the climate service provider

community would be collated into a draft long-term Sectoral EWISACTs Plan of Action by CIMH. This draft would thereafter be considered, revised and adopted at the Consortium level.

Focus groups - Mapping the way forward

The focus group session provided a forum for sectoral partners, their stakeholders and climate service providers to brainstorm ideas for and contribute to the Sectoral EWISACTs Plan of Action. Six thematic focus groups, each with expertise in agriculture, water, health, disaster risk management, tourism and the met services respectively were given the opportunity to work through a structured exercise in which group members were tasked with characterising the sectoral system and identifying gaps related to monitoring/observations, research, modelling and prediction, the sectoral information system, sectoral interface platforms and capacity development needs. Participants were thereafter asked to formulate a draft plan to address these gaps. Groups were provided with a structured PPT template to complete and present by the end of the exercise.

Way Forward and Close, Dr. David Farrell and Adrian Trotman, CIMH

Dr. David Farrell expressed his thanks for the participation of all stakeholders in the meeting. He vouched for CIMH's commitment to continue the implementation of the sectoral EWISACTs portfolio and to support its Consortium of regional partners in the coming years, as part of the work of the Caribbean RCC. He extended his sincere thanks to Adrian Trotman for his role in leading the RCC's establishment and development. Adrian Trotman went on to thank the CIMH staff for contributing to the success of the meeting.

Appendix A: Agenda

Thursday, June 1st, 2017

Time	Activity	Facilitator
	Master of Ceremonies Remarks	Adrian Trotman, CIMH
0900 - 0905	Welcome Remarks	David Farrell, CIMH
0905 - 0910	Remarks	Elizabeth Riley, CDEMA
0910 - 0925	Feature Address by the Minister of Economic Planning, Sustainable Development, Industry, Information and Labour	Hon Camillo Gonsalves
0925 - 0930	Vote of Thanks	Shermaine Clauzel, CARPHA
0930 - 0935	Meeting objectives and review of agenda	Roché Mahon, CIMH
0935 - 1050	Supporting Early Warning Information Systems Across GFCS Pillars	CIMH
1050 - 1110	COFFEE BREAK	
1110 - 1140	Supporting Early Warning Information Systems Across GFCS Pillars (cont'd)	CIMH
1140 - 1155	Participatory Integrated Climate Services for Agriculture (PICSA)	Peter Dorward, UoR
1155 - 1210	Towards the development of a Caribbean vector proliferation model	Mercy Borbor-Cordova, SUNY

Time	Activity	Facilitator
1210 - 1225	Strengthening the Energy-Climate Nexus: Building-Resilience and Resilience-Building	Devon Gardner, CCREEE
1225 - 1325	LUNCH	All
1325 - 1335	Evolution of Climate Services in the Caribbean	Adrian Trotman, CIMH
1325 - 1340	Official Launch of Sectoral Climatic Bulletins	CIMH and Partners
1340 - 1540	Sectoral EWISACTs Expo	CIMH and Partners
1540 - 1600	COFFEE BREAK	
1600 - 1625	Stakeholder Interactive Session	All
1625 - 1630	Close	CIMH

Friday, June 2nd, 2017

Time	Activity	Facilitator/Presenter
0850 - 0900	Recap of Day 1	Adrian Trotman, CIMH
0900 - 0930	Stakeholder Feedback Session	All
0930 - 1000	User needs assessment of climate services in the Caribbean	Shelly-Ann Cox, CIMH

Time	Activity	Facilitator/Presenter
1000 - 1030	Provider capacity to deliver climate services in the Caribbean	Roché Mahon, CIMH
1030 - 1050	COFFEE BREAK	
1050 - 1100	Setting the stage for a Sectoral EWISACTs Roadmap	CIMH and Partners
1100 - 1230	Focus groups - Mapping the way forward	All
1230 - 1330	LUNCH	
1330 - 1500	Focus groups - Mapping the way forward	All
1500 - 1530	COFFEE BREAK	
1530 - 1630	Group Presentations/Plenary Discussion	All
1630 - 1645	Way Forward and Close	CIMH

Appendix B: Participant List

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49	Leith Dunn	Institute of Gender Studies UWI	leithdunn@gmail.com	876-815-3926
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51	Mercy S Borbor Corolova	SUNY Upstate Medical University	meborbor@espd.edu.ec	593-994-0827/3
52	Shelly Ann Cox	CIMH	scox@cimh.edu.bb	246-230-6579
53	Michelle Nurse	Caricom Secretariat	michelle.nurse@caricom.org	592-222-0108
54	Bernard Maloney	Central Water and Sewage Authority	bernard.maloney@gmail.com	784-454-7501
55	Tracey Browne	Ministry of Tourism Antigua	traceybrowne@ab.gov.ag	268-778-0809
56	Linda Straker	Media (CMC)	strakes30@gmail.com	473-415-4413

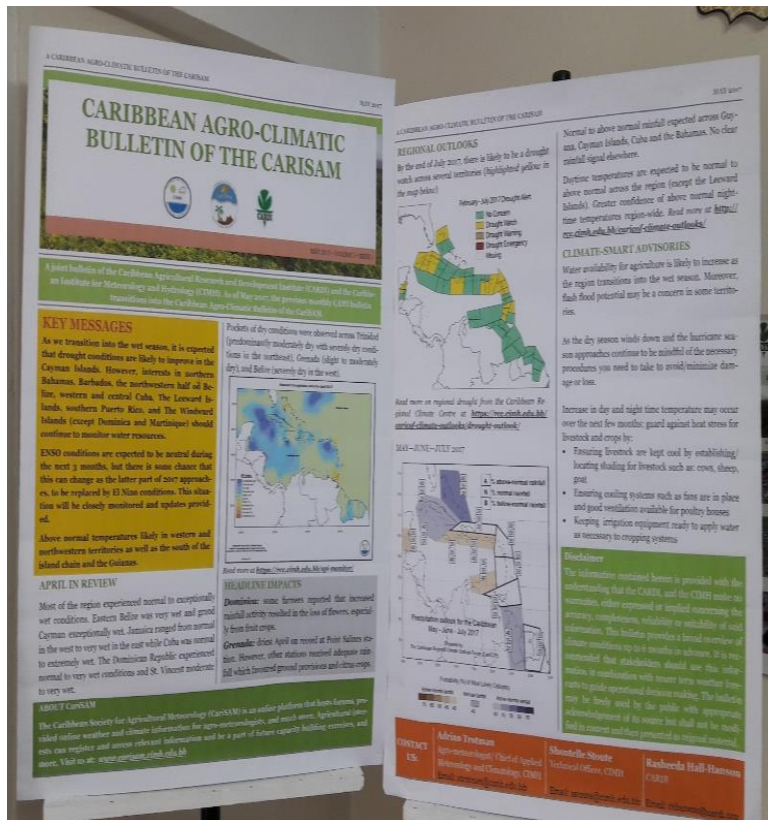
	Name	Organization	Email	Telephone Number
57	Jodi-Ann Petrie	CIMH	jpetrie@cimh.edu.bb	246-425-1362

Appendix C: Highlights from the Sectoral EWISACTs Expo

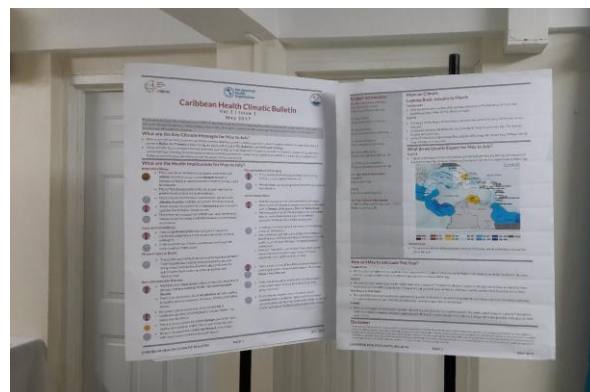
Booth 1: Consortium of Regional Sectoral EWISACTs Partners



Booth 2: Agriculture



Booth 3: Health



Booth 4: Tourism



Booth 5: Meet a Climate Scientist



Appendix D: Summary of Stakeholder Feedback

Agriculture	Health	Tourism	Climate Science	Consortium
Excellent initiative! This will certainly engender food security amidst a changing climate (water)	Great initiative. Need to attract young demographic for career opportunities (DRM)	Very impressive. Agriculture sector should incorporate this format into CARISAM (Met office)	The evidence-based information from this product will guide the health sector with their policy making to mitigate the impacts of climate change on health (Health)	Informative. Concerned about the water sector climate impact bulletin (water)
PICSA is a very interesting platform that can serve as a base to facilitate the use of climate information in agriculture (agriculture)	CARPHA is to be commended for their continued in promoting food and nutrition security (Agriculture)	Platform is interactive, the display is very appealing and the language is adequate (agriculture)	The water component of CIMH should be promoted a bit more (water)	A short Youtube video for persons of products for persons unable to make it here would be great (Met Office)
PICSA is a relevant and appropriate technology to assist the farming community. We from Dominica are most interested in exploring the system (agriculture)	Excellent awareness activity, idea exchange platform (DRM)	Very user friendly and easy to use. Will complement public education and awareness campaigns (DRM)	Editing for typos is important	Essential step in moving the process forward (Met office)
Excellent use of color/layout. Very good key message box and graphics (agriculture)	The font size on the HCB is too small. It looks dull and unattractive (Met office)	The bulletin is very attractive and easy to read. Very user friendly (Water)	Happy that drought has been included on the national priority list of hazards (DRM)	Enjoyed signing with this pen!! (Met Office)

Agriculture	Health	Tourism	Climate Science	Consortium
Very informative and helpful (Met office)	Happy to know that strides in the direction we need to go are being made, the sectoral bulletin helps! (DRM)	Great idea to involve policy makers to get involved in products and services being developed for the tourism sector (DRM)	These products have been extremely useful in our operations and disaster management initiatives (Water)	
Good approach to being sector specific with these climate related tools (DRM)	Great information (Met office)	Bulletin is a good idea. Can't wait for it to be trickled down to the tourism department in SVG (Met office)	Excellent set-up, displaying relevant information for sectors vulnerable to climate change (Met and agriculture)	
Knowledgeable reps and interactive session.	Very informative session. Adds value to the workshop and personal knowledge (DRM)	Bulletins are very informative (Met office)		
		Very useful tool, innovative use of technology.		