



A bi-monthly electronic bulletin about interdisciplinary research, teaching and outreach at the Centre for Resource Management and Environmental Studies (ERMES)
 Editors: Maria Pena and Dr. Patrick McConney

We're social! Join us!

By Jehroum Wood

Research, graduate teaching, consultancy, outreach ...ERMES has been working in many ways to make a meaningful contribution to sustainable development in the region for the past 30 years. Along the way, the CERMES team has grown and gathered insight into environmental and natural resource management in the region. We have seen both gains and setbacks in the past, and have helped to identify and address major challenges and promising opportunities for the future.



Like CERMES of Facebook!

We want to share this knowledge and these Caribbean sustainability stories with the world; and social media is one of the tools that we are using. We are posting information so that you can stay up-to-date with what CERMES is doing with its many partners. We also want to hear your thoughts and your stories on sustainable development in the Caribbean Region. So, feel free to friend CERMES and like our updates on [Facebook](#), follow us on [Twitter](#) or [enjoy our videos on YouTube](#). Join us!



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Regional training on IWRM

By Jeanel Georges

The Global Water Partnership-Caribbean (GWP-C) in collaboration with the Antigua Public Utilities Authority (APUA), CAP-Net and Caribbean Water held a two-day training workshop on Integrated Water Resources Management (IWRM) in St. John's, Antigua from 15-16 December 2014. Regional stakeholders from water resources and related sectors convened to consider the ways in which climate change is impacting on water resources in Small Island States of the Caribbean and how IWRM can be used in as a tool for climate change adaptation. Dr. Natalie Boodram (GWP-C) chaired the event which was co-facilitated by Tara Mackey, Jeanel Georges, Dr. Paulette Bynoe and Joyce Thomas-Peters.



Stakeholders and facilitators at the GWP-C training workshop

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Underscoring the need for coordinated efforts between private and public sector organisations, Caribbean case studies were used to guide discussion on the drivers of climate change, strategy development and planning for adaptation in water management. The workshop was also an opportunity to pilot the revised CAPT-Net IWRM Training Manual and Facilitator's Guide which has been updated with IPCC AR5 climate data and incorporates Caribbean examples so as to cater to a regional audience. Tara Mackey, Jeanel Georges and Anuradha Maharaj (all of CERMES) did revisions following the recommendations of regional experts. The revised manual should be ready for use by April 2015.



Tara Mackey (top) and Jeanel Georges (bottom) addressing stakeholders on climate change impacts and adaptation in the water sector

Caribbean media and youth workshop on water security and climate resilience

By Anuradha Maharaj

The Global Water Partnership-Caribbean (GWP-C) held a Caribbean Media and Youth Workshop on Water Security and Climate Resilience in Trinidad from 18-19 December 2014. Anuradha Maharaj, one of our research assistants, represented CERMES. Her role as facilitator helped in dissecting the scientific side of

water-based climate change research for easier understanding amongst the wide cross section of Caribbean media personnel and the youth of the Caribbean Youth Environment Network (CYEN); as well as driving the importance of the water-climate change nexus and the need for educating the Caribbean about our increased vulnerability as SIDS.

Engaging youth: 10th Annual National Guidance Counsellors Career Showcase

By Jehroum Wood

From 15-16 January 2015, CERMES participated in the Barbados Association of Guidance Counsellors (BAGC) 10th Annual National Guidance Counsellors Career Showcase. The UWI Cave Hill campus, hosted over 3,000 students and CERMES played its part by keeping them engaged with various displays. Renata Goodridge led them through some simple water quality testing exercises and provided the visiting students with information on related work, based on her wealth of experience in the field.



L to R: One-on-one lesson from Renata Goodridge in testing water quality and students taking in the aquaculture exhibit



Dale Benskin (L) with some happy students and their t-shirt prize for doing well on an interactive quiz

Jehroum Wood piqued their interest with an introduction to aquaculture, while Dale Benskin and his interactive quizzes kept the students engrossed in environmental and natural resource management

related discussion. Amidst the laughter and fun-filled activities, teachers and the leaders of tomorrow, from various Barbadian schools, shared with us their interest in sustainable development and left with CERMES prizes and a bit more knowledge of environmental and natural resource management activities and possibilities.

Meet the newest CERMES PhD candidate: Mohammed Nagdee



We were happy to welcome Mohammed Nagdee to CERMES in January 2015 to pursue his PhD. Read on to see what he says about himself.

Mohammed is an advocate for continuous learning who believes that new experiences bring with them new challenges that

can only be overcome by greater understanding and dedication.

It is with these words in mind that Mohammed has joined the CERMES family in the pursuit of a PhD under the watchful supervision of Dr. Leonard Nurse. His area of study is a continuation of his MSc research which dealt with prediction models for the evolution of sandy beach coastlines surrounding Barbados including the impact of sea level rise.

Mohammed spent four years at the University of the West Indies St. Augustine campus before graduating in 2010 with a BSc in Geomatics and a MSc in Coastal Engineering and Management. He also has the distinctive honour of being the second person to have ever successfully completed the MSc program in one year.

Mohammed returned to Barbados in 2010 and began focusing on his professional development. In 2012, he received his Professional Surveying License from the Government of Barbados. In addition to this Mohammed has worked in varying capacities with the Coastal Zone Management Unit (CZMU), Caribbean Large Marine Ecosystem (CLME) project, UWI and the Barbados Water Authority (BWA) on local and regional GIS and coastal projects.

Disaster risk insurance and catastrophe models paper

By Antonio Joyette

“Disaster risk insurance and catastrophe models in risk-prone small Caribbean islands”, is the title of a recent publication lead authored by one of our former CERMES graduate students and now continuing PhD Candidate. The article authored by Antonio Joyette and co-authored by Dr. Leonard Nurse, current PhD supervisor, and Dr. Roger Pulwarty, current doctoral committee member, was published in December 2014 in an early release of Disaster journal.

The article is a journal presentation of Antonio’s original MSc research paper. It addresses issues related to the use of catastrophe models in addressing post-catastrophe recovery in the small Caribbean islands which are prone to natural disasters. The article provides a good overview of the region’s vulnerabilities to natural hazards, the workings of parametric-based mechanisms and their relationship to derivatives-based catastrophe modelling, integral aspects of the region’s Caribbean Catastrophic Risk Insurance Facility (CCRIF) catastrophe insurance products. The paper also examined the constraints on the application of these models and proposes means of refining their effectiveness and acceptability. Antonio’s current research focus is on climate change and drought in the Caribbean. The article may be previewed at <http://onlinelibrary.wiley.com/doi/10.1111/disa.12118/abstract>.

Projected Caribbean SST trends

A recently published paper by Leonard Nurse and John Charlery examines sea surface temperature (SST) records from the NESDIS AVHRR satellite data and NOAA Optimum Interpolation (OI) sea surface temperature V2, in a comparative analysis of projected SST changes for the Caribbean Sea up to the end of the 21st century, using the Hadley Centre’s regional model, PRECIS. The implications of these projected SST changes for bleaching of coral reefs and for rainfall are also discussed. Check it out online.

Citation: Nurse, L.A. and J. Charlery. 2014. Projected SST trends across the Caribbean Sea based on PRECIS downscaling of ECHAM4, under the SRES A2 and B2 scenarios. *Theoretical and Applied Climatology*. doi 10.1007/s00704-014-1346-1.



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