



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



## That Janus moment: looking back, looking forward

By Adrian Cashman



My first thought on being asked to say something about what CERMES has achieved in 2015 was: not much really. But then I got to thinking and realised that quite a lot has happened and

yes, it would be good to share them with you. I'll not try to mention everything, as that would bore you so I'll try to highlight what for me have been some of the notable events and achievements.

Our numbers for the 2014-15 academic year were something of a disappointment with only nine students in the taught Masters programme. Whilst we may speculate on the reasons for this, the financial challenges prospective students face must be a serious hurdle. We are always looking for ways to lighten that burden and whilst scholarships are one way they are not the total solution. My personal view is that we need to look at creative ways to make CERMES more accessible and affordable. This is of course an on-going matter for discussion but we were able to offer some scholarships in 2015-16 and we will be able to offer four more in 2016-17. It was gratifying to see that for this academic year our numbers are up, not quite where we would like them to be... but up. Perhaps one of the reasons for this is the effort we are putting into our outreach activities.

Over the last year CERMES has made great strides in upgrading its website and increased its social media outreach activities. We are now active on Facebook, Twitter and LinkedIn and we have our own YouTube channel. For those of you who have not seen it, I would

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urge you to do so and see some of the great short videos we have been producing. There you can see some 'old' faces and also some new ones in our "Meet..." series. See "CERMES profile videos" article on page 5.

During the year we have made a start on revising our teaching programme and introducing changes to some of our existing courses. The Coastal and Marine Resources Management Stream has had a 'make-over' and is now much more integrated and focused. The Water Resources Management and Climate Change Streams have also been 'tweaked'. We are introducing a new, compulsory course called Field Studies Skills, which was previously part of each of the Specialisations Streams, and we have made changes to Professional Skills, and Measurement and Analysis, to attune them more closely with student needs and preparation for the final research project.

At the start of this academic year the taught Masters in Renewable Energy Management (MREM) previously hosted by the Department of Computer Science, Mathematics and Physics (CMP) was subsumed by CERMES. This is an exciting development and complements our existing offering. In particular I believe there are synergies with the Climate Change Stream that will emerge. As we integrate MREM into CERMES we will be looking at how to streamline the

current set of course offerings and seek to broaden the appeal beyond Barbados.

In October, CERMES as a Department received the Vice-Chancellors Award for Excellence, recognition for all the great work and effort over the last five years put in by everyone. It was a pleasure and an honour to receive it on behalf of you all and once again I have to pay tribute to all who over the years have made CERMES the fantastic group of people it is.

Coming up in 2016-17 are plans to begin with the development of elective courses, so as to add an element of choice to the programme. We are also considering how we can make more use of blended and on-line learning to cater for the needs of students who cannot participate full-time on the programme. We will also be looking at our research activities and strategy. Whilst CERMES members do undertake a lot of research I believe there is a lot of scope to build on this and have CERMES' research capabilities recognised as being greater than the sum of the individual parts.

A last note to bring to your attention, in 2016, CERMES will have been in operation in one guise or another for 30 years! We are planning various activities to celebrate this milestone, so watch out and keep your ear to the ground – you never know, you may well be part of it.

## Climate and development in LDCs at COP 21

By Adrian Cashman



**PARIS2015**  
CONFÉRENCE DES NATIONS UNIES  
SUR LES CHANGEMENTS CLIMATIQUES  
COP21-CMP11

During the 21<sup>st</sup> Conference of Parties meeting in Paris, at which agreement was reached on mitigating greenhouse gas emissions, a parallel meeting was held which focused not on mitigation but on development and adaptation. The theme of the meeting was “Zero poverty, zero emissions: Tough talk on poverty and climate.” It was attended by some 250 people from across the globe and from organisations such as the World Bank, The Red Cross and Red Crescent Societies, The Economist and many others.

As part of this debate I was asked to make a presentation during the session on “Success of climate

and development – adaptation in Least Developed Countries,” which was entitled *Water Resource Management under Climate Change in Small Island States: The case of Carriacou*. The presentation highlighted some of the preliminary findings coming out of a CERMES-led research project. We focused on the Grenadian island of Carriacou, which is one of four pilot sites. Carriacou is interesting because not only has it recently felt the effects that climate change and variability is likely to bring, i.e. more incidence of severe drought, but it is also challenged as to how to adapt to an emerging reality. Trying to develop adaptation options is problematic because with the lack of any sort of climate and weather data it is extremely difficult to carry out any modelling on which to base decisions. But what do you do – nothing? That really is not an option.

Carriacou has been deliberately chosen because of the challenges it poses to what can be done. Through the research and previous work we have a good understanding of the social and environmental vulnerability of the island, the extent to which its water resources are likely to be affected and we have been exploring the potential future impacts on the island's economy. An exciting part of this work has been the development of future socio-economic and political scenarios which we are using to guide the development of adaptation options.

What has become clear through this work is that rainwater harvesting is going to remain the bedrock of water supply to the people of Carriacou and that what is needed is to develop smarter and more sustainable arrangements that optimise and secure this source of supply. This needs to be coupled with solar powered desalination as an additional option. We are working on a number of innovative adaptation ideas that we believe will make an important difference to the quality of life of those who live on Carriacou. If this is not done then the future begins to look bleak.



Typical roof drainage setup for rainwater harvesting in Carriacou

## Association of Caribbean States- Caribbean Sea Commission science symposium

By Robin Mahon

The Caribbean Sea Commission (CSC) of the Association of Caribbean States (ACS) held its first science symposium, “Challenges, Dialogue and Cooperation towards the Sustainability of the Caribbean Sea,” at the Radisson Hotel, Port of Spain, Trinidad and Tobago: 23-24 November, 2015. There were three panels: “Facing the threat of Sargassum Seaweed”, “Erosion of Coastal Zones and Mitigation Alternatives”, and “Invasive Species, the Lion Fish – State of the current situation.” In each session there were two presentations, followed by contributions from countries and invited experts and concluding with a discussion on the role of the CSC and the way ahead.

Conclusions were that for regionally important issues such as these, especially the Sargassum threat, there was a need for regional coordination of the many scattered efforts at understanding and addressing the problems. It was also recognised that the CSC could provide region-wide access to high level policy advisors and decision makers that could increase awareness and promote policy change needed for comprehensive responses to these threats. The need for a high-level science-policy interface for oceans in the Wider Caribbean is a critical but missing component of the Regional Ocean Governance Framework for the Wider Caribbean Region.



Mr. Alexander Girvan (left), CSC Program Coordinator, receives a copy of “Towards Marine Ecosystem-based Management in the Wider Caribbean” from Mr. Patrick Debels (centre), Regional Coordinator, Large Marine Ecosystem+ Project, and Prof. Robin Mahon, CERMES (co-editor of the book)

The ACS and partners have been pursuing the Caribbean Sea Initiative since 1998 through the UN General Assembly (UNGA) Resolution (63-214) ‘Towards the sustainable development of the Caribbean Sea for present and future generations’ at the UN General Assembly. In the process, the CSC was established in 2008 to promote and oversee the sustainable use of the Caribbean Sea. The operationalisation of the CSC can be expected to move forward with the recent appointment of a Program Coordinator, Alexander Girvan. Funds have been provided by the Government of Turkey to support initial activities, including this symposium.

## Considering fisheries certification

By Patrick McConney



“Fisheries certification in the developing world: Locks and keys or square pegs in round holes?” was recently published in Fisheries Research (<http://dx.doi.org/10.1016/j.fishres.2015.08.021>).

Crafting the article allowed Patrick McConney and others associated with the Marine Stewardship Council (MSC) and its Stakeholder Council (of which McConney is an academic member) to closely examine how fisheries certification does or does not fit with the realities of the developing world. In the paper a strong case is made for links to be made with implementation of the Small-Scale Fisheries (SSF) Guidelines and other sustainability initiatives that the developing world considers important, and that CERMES is involved in.

Whether for certification or not, fisheries standards are becoming essential. McConney presented the MSC and its initiatives to a meeting of Caribbean fisherfolk leaders in Antigua and Barbuda in October. It was in a CANARI action learning group workshop aimed at improving fisheries-related food security with a focus on the members of the Caribbean Network of Fisherfolk Organisations (CNFO). The CNFO is keen to learn more about the relevance of fisheries certification to sustainable livelihoods. Fisherfolk leaders welcomed the CERMES presentation despite healthy skepticism about the net benefits of certification.

## Advancing regional integration for knowledge management

By Hyacinth Armstrong-Vaughn

The Caribbean Protected Areas Gateway (Caribbean Gateway), under the BIOPAMA programme, is joining regional initiatives in providing access to reliable biodiversity and natural resource data.

At the recently held 68th Gulf and Caribbean Fisheries Institute (GCFI), 9-13 November in Panama, BIOPAMA met with CLME+, The Nature Conservancy (TNC), Conservation International (CI) and the Institute of Marine and Coastal Research (INVEMAR) to further define opportunities to collaborate and improve the quality of support available for natural resource decision making in the region.

During the meeting, each partner provided an update on the status of their platforms' development and defined their main thematic areas and geographic scope to identify areas of overlap. An inventory of the global datasets used by each partner is being compiled to facilitate the monitoring and evaluation objectives of each programme, and support countries' national and international reporting obligations.

In a separate session, the Caribbean Gateway took the opportunity to showcase the advancements made in its online platform, the Regional Reference Information System (RRIS), to a wider audience. Session participants were able to navigate the various repository functions of the RRIS which include *inter alia* World Database on Protected Area (WDPA) Country reports, a regional database of training opportunities and events, country and protected area specific publications, and map making features. The advancements were well received and participants expressed willingness to use and contribute to the Caribbean Gateway. Links to other data and data sources of interest at the country or site level were identified and suggestions for further types of analysis were made.

## CERMES welcomes researchers

By Kimberly Baldwin and Jehroum Wood

Kimberly Baldwin, our newest Post-Doctoral Researcher is no stranger to CERMES. Kim first joined the Department in 2001 as a MSc Coastal and Marine Management student and then embarked on her PhD based in the Grenadine Islands from 2006-2012. In 2008

she began teaching the Geoinformatics for Environmental Management course at CERMES and has co-supervised a number of MSc students over the years.



Lindy Knowles, CERMES MSc student (left) and Dr. Kim Baldwin (right) during Barbados habitat mapping exercise

As a broadly trained fisheries scientist and marine biologist, Kim's interests have diversified over the years. Her multi-disciplinary background and strong belief in the importance of applying a holistic approach drives the topic of her post-doc research exploring *Methods for data collection, conversion and use of spatial information*.

Kim's research will focus on the development of practical applications for the creation and exchange of spatial information with an emphasis on marine spatial planning and management within the SIDS context. As part of this research, she and Prof. Hazel Oxenford are co-supervising CERMES MSc student, Lindy Knowles with his research project, "*Marine habitat mapping for Barbados: Development of a habitat classification scheme and application of remote sensing and ground-truthing video-surveys*," in which field surveys were conducted last summer around the island and soon will result in the development of the nation's first comprehensive marine habitat map. Kim's research will also review other available coastal information mapping tools and applications, including the use of participatory mapping and UAS drones, as well as guidelines and best practices for spatial data quality, web information sharing platforms, and other innovative spatial management tools.



The CERMES Water Group has recently welcomed their newest member, Dr. Timothy Laing, to the team. Timothy is an environmental economist who has recently joined CERMES to work on the Water-aCCSiS and the GLo-Lo projects focusing on

developing socio-economic scenarios for the region and a water demand model for Barbados. He comes to CERMES from a post-doctoral position at the London School of Economics (LSE) focusing on developing a market for Reducing Emissions from Deforestation and Forest Degradation (REDD+). He has a PhD from LSE entitled, "Assessing the impact of institutional conditions upon REDD+," focusing on the development of REDD+ in Guyana. His main research interests are the intersection of environmental and developmental issues and has over ten years of experience working on these issues in the UK and Guyana. He has a BA in Economics from the University of Nottingham and an MA in Development Economics from the University of Sussex.

We are absolutely elated to be working with Tim over the coming months and we look forward to sharing the exciting outputs of his future foresights work with you as we continue to contribute to water resources management and research in the region.

## Until we meet again

*By Jehroum Wood*

Good teams help each other, but great teams grow together and incorporate collaboration into their culture which then guides their collective success. This statement perfectly describes the Water Group here at CERMES.

They have worked quite well together over the years and have reaped the benefits of taking this collaborative approach. However, as with all matters, change is constant and time has a way of transforming things. Over the last few months there have been a few changes to our Water Group. Abdelaziz Gohar, Anuradha Maharaj and Jeanel Georges are all moving away from Barbadian shores to other organisations and

courses of study. Working with them has been an absolute pleasure and their presence here will be sorely missed. However, this is by no means goodbye, just, "until we meet again." So we want to take this opportunity to wish them all the best and look forward to future communication and collaboration with them.

## CERMES profile videos

*By Jehroum Wood*

When there is teamwork and collaboration, wonderful things can be achieved. The CERMES family is an efficient and effective team with a diverse mixture of individuals, skillsets and experiences that work together for the improvement of environmental and natural resource management and research in the region.

The first video in the series - meet Dale Benskin our IT expert

We want you to get to know a bit more about us and why we do what we do. So as we approach the end of 2015, we will be featuring members of our team, showcasing the people and personalities that make up this wonderful group. You will have a chance to meet each of our Staff Members, PhD Candidates, and Project Assistants. You can find out more about what life is like here at CERMES and even a little more about who the members of our team really are.

Feel free to [check out our first two video](#) and stay tuned for much more as we continue to share our work and new developments with you.



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