February 2017



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

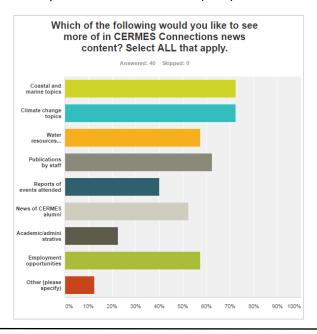
Connections feedback

By Maria Pena and Patrick McConney

Special thanks to all of you who took the time to participate in the short survey on our CERMES Connections. Your feedback has been valuable and we are making every effort to include your comments in future issues of the newsletter.

We are delighted that the majority of you (60%) always enjoy reading the Connections. Our goal is to make sure that the rest of you feel this way too. We hear that you are asking for more of the following content in upcoming issues:

- Coastal and marine topics (72.5%)
- Climate changes topics (72.5%)
- Publications by staff (62.5%)
- Water resources topics (57.5%)
- Employment opportunities (57.5%)
- News of CERMES alumni (52.5%)
- Reports of events attended (40%)





We realise that over the years there has been a marine focus to the Connections, which is perhaps a throwback to the time when CERMES priority was that of coastal and marine resource management. The editors strive however to gather articles from our other specialisation streams - climate change and water resources management – for inclusion in each issue, but we do agree that greater effort is required to engage our CERMES climate change staff, students and alumni. Maybe this comment from one of you will encourage them to start submitting more articles on this very important topic – "The magazine focuses heavily on marine information and neglects the other areas such as climate change..."

While most of you (35%) have no preference for the length of the newsletter, we will continue to make a concerted effort to keep future issues "short and sweet." There is a fairly high preference (52.5%) for a quarterly publication frequency so we are taking your opinion into consideration, however due to the steady growth in research activities within the department and the need to keep the newsletter to a reasonable length, there may be no other alternative than to retain the bimonthly publication schedule.

While to some (25%) there is no preference between pdf or html format, since the majority of you (60%) are









happy to receive the newsletter in pdf format then what's the saying? - "if it ain't broke, don't fix it."

It's wonderful to hear that most of you (53%) share Connections issues with colleagues, friends and family members. Please keep sharing!

We received many heartening comments from many of you and take the opportunity now to share some of them with the wider Connections readership:

- Keep up the good work! This is such a great way to stay in touch with what is happening at CERMES and to the CERMES extended family of staff, students and alumni.
- I definitely appreciate receiving the magazine in my email but I just feel it doesn't adequately capture the excitement and the fun learning environment that I experienced at CERMES...or perhaps my year was just extra special!
- Always appreciate news about what CERMES is up
- Keep up the good work!
- It's a well done newsletter.

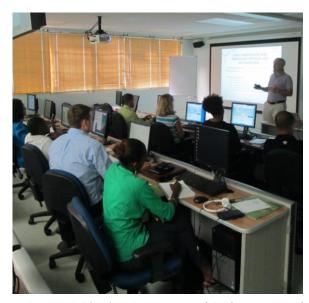
Thanks again for your feedback. Should you have any more ideas on how to improve the CERMES Connections please drop myself or Patrick a line at maria.pena@cavehill.uwi.edu or patrick.mcconney@gmail.com.

Caribbean Protected Areas **Gateway hosts national local** workshop

By Julian Walcott

On 31 January 2017, the Caribbean Gateway sought to increase awareness of the Gateway and its functioning by facilitating an all-day national training workshop at CERMES, UWI. The event was primarily aimed towards creating a deeper understanding of the Gateway platform, which incorporates various web interfaces, tools and services.

The workshop had a total of 30 participants which included consultants, MSc students and persons representing various local government agencies (e.g. Coastal Zone Management Unit and the Barbados Fisheries Division), NGOs (e.g. Barbados National Trust and Caribbean Youth Environment Network), academic institutions (e.g. Bellairs Research Institute and The UWI) and the IUCN's Regional Office (Costa Rica). The workshop was led by Mr. Stephen Peedell, Project Leader of the Biodiversity and Protected Areas Management (BIOPAMA) programme at the European Commission Joint Research Centre (JRC), Ispra, Italy.



Stephen Peedell (JRC) explaining some of the functionality of the Caribbean Gateway to the participants

Participants were shown how to navigate and utilise the various tools and services offered within: 1) the Regional Reference Information System (http://caribbean-rris.biopama.org/) which is an information system; 2) GeoNode (http://geonoderris.biopama.org/), a content management system; and 3) Yammer (https://www.yammer.com/biopama/), a social networking service utilised by organisations. The workshop was highly interactive, facilitating questions and promoting stimulating discussions throughout the one-day session.

The beneficiaries of the workshop were not limited to the participants but also included the Gateway by way of feedback provided via a survey and the identification of persons willing to work with the Gateway to ensure increased accuracy and value of the data provided.









Caribbean Gateway receives hardware and software

By Hyacinth Armstrona-Vauahn

The Caribbean Gateway now has the required hardware and software to support its operation. The acquisition of the server equipment was part of the contribution made by the European Commission Joint Research Centre (JRC), an implementing partner of the BIOPAMA programme. "The delivery and installation of this equipment is a milestone in the life of BIOPAMA and ensures that the UWI can effectively operate the Caribbean Gateway," said Hyacinth Armstrong-Vaughn, IUCN's BIOPAMA Coordinator for the Caribbean.

The JRC is the architect of the Regional Reference Information System (RRIS), the virtual platform on which the Caribbean Protected Areas Gateway (Caribbean Gateway) operates. During the week of 30 January 2017, Stephen Peedell, JRC's BIOPAMA Coordinator and James Davey, JRC's Web Developer, were at The UWI to meet with the Gateway team at CERMES and the Campus IT Services staff to officially sign off on the equipment, install the regional GeoNode and facilitate transfer of knowledge for the management and maintenance of the equipment. Julian Walcott, Technical Officer of the Caribbean Gateway noted that the Gateway now has improved capacity to support the Caribbean region in its acquisition, management and storage of protected area related data and information.



The Campus IT Services team, JRC colleagues and the Caribbean Gateway team discuss hardware and software aspects of the Gateway

Barbados Green Economy

By Maria Pena

In 2011, the Government of Barbados, The University of the West Indies Cave Hill Campus and the United Nations Environment Programme (UNEP) undertook a macro analysis of the Barbados economy - the Barbados Green Economy Scoping Study (GESS) focusing on the potential of incorporating environmental considerations into five key economic sectors: tourism, agriculture, fisheries, building/housing and transportation. The analysis addressed crosscutting issues of water, energy, waste and land use. A number of CERMES faculty and staff comprised the UWI Technical Committee and writing team.

On 14 February 2017, a follow-up UNEP mission to Barbados along with representatives from the Ministry of Environment and Drainage met with the UWI Technical Team to discuss the next steps towards the Green Economy in Barbados. In 2013, following RIO+20, a Partnership for Action on Green Economy (PAGE), a collaborative platform among five UN agencies -International Labour Organisation (ILO), United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP), UN Institute for Training and Research (UNITAR) and UN Industrial Development Organisation (UNIDO) – was developed with the aim of catalysing country actions towards a Green Economy. See www.un-page.org. This joint program, enables these five agencies to work with countries on their respective mandates within the Green Economy. Barbados is one of 11 member states to join the PAGE.

The UWI Technical Team was briefed on outcomes of the Mission's week-long bilateral meetings with government Ministers and Permanent Secretaries from relevant ministries. Priority suggestions from these meetings included involving youth in the way forward, skills training for green jobs, capacity and institutional building, among others.

It is thought that The UWI is well positioned to support other Small Island Developing States (SIDS) in moving towards a Green Economy primarily through knowledge transfer inclusive of training and capacity building. CERMES Faculty and staff continue to be engaged in the process towards the Green Economy in Barbados.







Global Climate Models workshop

By Mohammad R. Nagdee



Mohammad (centre) with course instructors (L to R) Dr. Christian Dawson, Prof. Adam Fenech and Prof. Rob Willoughby

CERMES PhD Candidate, Mohammad Rafik Nagdee visited the Smithsonian Conservation Biology Institute in Front Royal, Virginia to take part in the Statistical Downscaling of Global Climate Models Workshop. The one-week full-time residential session was cosponsored by George Mason University and the Smithsonian Institution as part of the Smithsonian-Mason School of Conservation and incorporated lectures, discussions and computer-based modules. This year's course was attended by 15 participants from the United States, Japan, Italy, Norway, Colombia, Nepal, Nigeria, Kenya, Burkina Faso, Ethiopia, Indonesia and Uganda each of whom are in a unique respective field being adversely impacted by climate change. All participants from the African sub-continent were focused on hydrology and water availability and the majority of the participants were surprised by the challenges being brought on by climate change in vulnerable low-lying coastlines of Caribbean small island developing states.

The overall aims of the course were to provide an increased understanding of 1) the rationale for regional climate downscaling; 2) regional climate downscaling in practice, and 3) alternative frameworks for applying scenarios. The course was also designed to provide practical experience in the use of the SDSM 5.2 software and to:

1. Access, quality control, and statistically analyse climate data,

- 2. Prepare scenarios of future climate change through ensemble and validation techniques,
- 3. Use the SDSM 5.2 software to create statistical models of climate observations for a region of interest,
- 4. Create site-specific hi-resolution scenarios of future climate change, and
- 5. Understand applications of statistically-downscaled model results.

The course provided cutting edge scholarly methods and techniques which Mohammad believes, will not only be of tremendous benefit to his research, but also provide new areas of academic inquiry related to the impact of climate change on the Caribbean islands.

TWAP outputs now available

By Robin Mahon

The products of the GEF Transboundary Waters Assessment Programme are now (except for aquifers which are coming soon) available on the web. They cover transboundary aquifers, lakes, rivers, Large Marine Ecosystems (LMEs) and the open ocean. CERMES has co-authorship in several relating to Open Ocean and LMEs, as well as the overall cross-cutting report and the comparative report on governance. Have a look at http://www.geftwap.org/publications.

BRDs, TEDs and seabob

CERMES Technical Report No. 87 is ready for viewing. The Atlantic seabob trawl fishery has a harvest yield of about 15,000 mt per year, almost all of which is exported to the US and EU, representing Guyana's most valuable seafood export. In pursuing Marine



Stewardship Council certification for the seabob trawl fishery all commercial vessels in the fleet are using turtle excluder devices (TEDs) and bycatch reduction devices (BRDs) in their trawl nets, yet the effectiveness of these devices in reducing the bycatch of vulnerable sharks and rays was largely unknown. This study, undertaken by Aaron Garstin for his MSc research represents the first attempt to document the bycatch of these discarded species by the seabob trawl fleet, and to compare the effectiveness of two different TED designs. Download and have a read.







