



LIETTE VASSEUR (RIGHT) WITH SÉBASTIEN GOUPIL (CENTRE) AND LOUISE VANDELAC (LEFT)

January 2018 Newsletter

UNESCO Chair in Community Sustainability: From Local to Global

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A new role for UNESCO Chair Liette Vasseur

In October 2017, I was appointed as President of CCUNESCO's Sectoral Commission on Natural, Social, Human Sciences, an 11-member group of Canadian scientists, academics and others providing knowledge and expertise on a range of issues.

These include: social and environmental impacts of climate change; conservation of natural heritage and water resources; inclusion of newcomers and vulnerable groups; reconciliation between Indigenous and non-Indigenous people; youth engagement; and measures to fight discrimination, racism, violence, bullying and radicalization.

We are already actively working on a few of these issues including ecosystem services assessment in

Canadian Biosphere Reserves, ethics issues including artificial intelligence, women in science, and Indigenous inclusion in all sciences. Members of the sectoral commission are all working together to contribute to the CCUNESCO's work and advancing Canada's issues regarding sustainable development.



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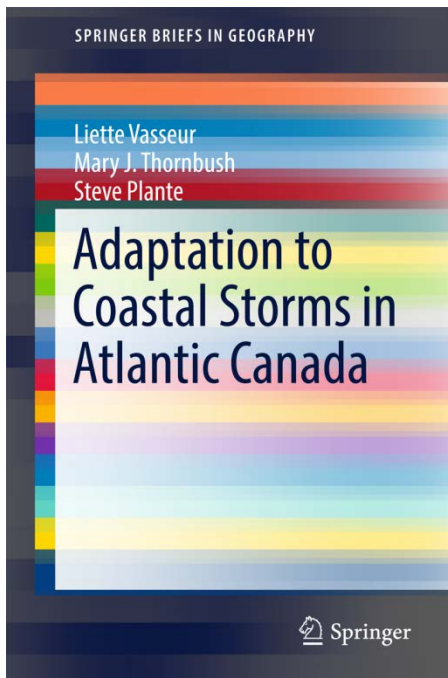
St. Barthelemy

Last summer, I was privileged to be invited to St. Barthelemy to discuss issues related to sustainable development. St. Barthelemy is a small island of 25km², a France territory in the Caribbean Region. This island has about 13,000 local citizens but during tourist season can easily double in number as it is well known place for luxury resorts.

However, during my visit, I qualified this island as a developed “country” in development. Why? While the island is quite wealthy and is near carrying capacity, people still have the mentality of economic development in a developing country. This is at the expense of their fragile environment. The island relies on the external world for almost everything from water, food, and diesel (for

electricity and desalination). At the time, I stated that they may start thinking about sustainable development if they get a disaster like a strong hurricane. I never thought that this would be so true. I hope that while rebuilding they do it in a more sustainable way. I’ll be following their progress over time with hope to continue to contribute for community sustainability.

Telling the stories of coastal communities facing storms



During the summer, Mary Thornbush at Brock University and Steve Plante of the Université du Québec à Rimouski and I published a book entitled *Adaptation to Coastal Storms in Atlantic Canada*.

This short book summarizes the results of the project called Coastal Communities Challenges in the face of Climate Change, which was funded by the Social Sciences and Humanities Research Council (Plante being PI, Vasseur, co-applicant).

It provides a perspective on how people in 10 coastal communities perceive and experience extreme weather events, and how through this project, they acquired tools and knowledge to improve their adaptive capacity and their resilience to extreme weather events.

NEW WEBSITES



The UNESCO Chair in Community Sustainability: From Local to Global has updated its website, including news postings documenting recent events and meetings attended and hosted by the chair, photos and much more. Visit the new website at brocku.ca/unesco-chair/

The Canadian Commission for UNESCO has also gotten a fresh online look and launched their new website. The address of the new site is en.ccunesco.ca (in English) and fr.ccunesco.ca (in French).

Reconciliation in Biosphere Reserves: learning from the Indigenous peoples of Canada

In June 2017, I had the opportunity to visit for a second time in a couple of months (the first visit for the periodic review of the biosphere reserve (BR)) Baie Comeau and the Manicouagan-Uapishka Biosphere Reserve. But this time it was quite different. The national event called “Co-building sustainability and reconciliation” aimed to build a collaborative agenda for reflection, discussion on successes and challenges in co-building sustainability and reconciliation in BRs in Canada. The

event included Biosphere Reserve practitioners, Indigenous and academic partners, and representatives from governing authorities – CCUNESCO and UNESCO. As the event occurred during the International Indigenous Day, the gala was hosted by the Nitassinam de Pessamit, a proud Innu Nation who received the participants with an amazing indigenous meal. The event produced a draft report in which there is an action plan for BRs to

start reflecting on how to better achieve reconciliation. In my case, I know it is a learning journey and a very important one.



2018 Sustainability Poetry Contest : “The Future We Want”



In celebration of the UNESCO World Poetry Day, the UNESCO Chair in Community Sustainability once again partnered with Brock’s Environmental Sustainability Research Centre (ESRC) to host the 2018 Sustainability Poetry Contest. This year’s topic, ‘The future we want,’ was derived from the creation of a set of 17 Sustainable Development Goals to end poverty, protect the planet and ensure prosperity for all as part of the [new sustainable development, 2030 agenda](#). Each goal has specific targets to be achieved by the year 2030.

The poetry contest is important because when we look at

sustainability in communities, arts and culture are important for human wellbeing and when we look at sustainable development, we consider both economic and social development. The contest was open to anyone in the Niagara region.

Winners will once again be announced at the UNESCO World Poetry Day Celebration which happens on Friday, March 23 at Mahtay Café & Lounge in downtown St. Catharines.

Visit brocku.ca/unesco-chair/sustainability-poetry-contest/ to view the e-book containing all entries from the 2015, 2016 and 2017 Poetry Contests.

Mobilizing UNESCO Chairs in the natural sciences for Policy Action Towards the 2030 Agenda

In July 2017, several of the UNESCO Chairs in the natural sciences met for the first time to discuss how and what they can contribute for policy actions and the 2030 Agenda.

The meeting allowed the Chairs to meet and discuss what type of research or education activities they are working on. Several interesting speakers took turns explaining how they view their contribution to the 2030 Agenda, while others helped set the stage for the discussion as Peter Messerli, Director of the Centre for Development and Environment at the University of Bern, stated: “The agenda 2030 is asking questions to scientists that were not asked before.”

It was clear from the presentations and the discussion that all participants agreed that the 2030 Agenda requires more collaboration and an interdisciplinary (if not transdisciplinary) approach to achieve any of the goals.

Other highly relevant subjects included women’s issues, humanitarian action, researchers at risk, and climate change.

The presentations were introducing the round table discussions that were interspersed in the program. For example, I participated in sessions such on climate change and biosphere reserves.

The meeting’s outcome was the Geneva Milestone, which was a call to strengthen the capacities of the UNESCO Chairs to contribute to the 2030 Agenda, increase the

collaboration between the chairs and UNESCO (and its networks), and develop more partnerships with other stakeholders.

I believe that for most, this was a positive meeting, adding linkages among chairs and learning how we can all enhance our collaboration and better contribute to the 2030 Agenda. From the meeting the Geneva Plan for Action was drafted and we are now all trying to reflect on how to move forward.



OTHER EVENTS



Tea in Fujian

Liette Vasseur enjoyed a meal and some tea after a recent meeting with her team of scientists, technicians and students in continued efforts to examine sustainable alternative agricultural strategies to improve tea plantations in the Fujian province of Southern China. This large research program also integrates the Chinese counterpart of the Ontario-China Research and Innovation project from the Ministry of Research and Innovation. Agrominerals from Boreal Agrominerals are being tested there for improving the health of plantations.



Seminar Series at Brock’s ESRC

Speaking at the Environmental Sustainability Research Centre’s (ESRC)’s Sustainability Transdisciplinary Seminar Series on January 12. The seminars are a component of the Master of Sustainability program. The topic was “The case study of San Juan, Ecuador: Bringing ecosystem governance for a more sustainable community.”



First meeting of UNESCO chair in National Sciences

Sustainable Development Goals Youth Training at Brock University

On a sunny but cold Saturday morning, over 200 students from high school, college and university gathered together to learn about UN Sustainable Development Goals (SDGs) and how they can all contribute. Stephen Lee from the 3% Foundation introduced the goals and the United Nations. I was invited on their afternoon panel. Through their presentations, the presenters described how it was possible to

contribute here and abroad and in my case, explained how all of them can be involved with projects in Ecuador, for example. This event was quite powerful for many of them. It was organized by students at Brock University in the Faculty of Applied Health, under the patronage of the Canadian Commission for UNESCO (CCUNESCO), and sponsorship of several organizers, including my UNESCO chair.



Forest Landscape Restoration: it's more than an ecological story

On August 27, 2017, in Iguassu, Brazil, the Society for Ecological Restoration and the IUCN Commission on Ecosystem Management (CEM) and its Thematic Group on Ecosystem Restoration held the Forum on Biodiversity and Global Forest Restoration. The forum convened 52 experts from 15 countries of Africa, Asia, Australia, Europe, North America, and South America. It aimed to discuss three major themes that are crucial for Forest Landscape Restoration (FLR): Assessing and Prioritizing Restoration Actions; Promotion of International Standards for Ecological Restoration;

and Policy and Governance Needs for Inclusion of Biodiversity in Restoration. I was part of the organizing committee representing the Thematic Group on Ecosystem Governance of CEM and helped facilitate the main sessions. But why should we look at FLR? As many landscapes are now degraded or deforested, there is a need to restore in order to regain and enhance ecosystems functions for community wellbeing and sustainability. Considering the Aichi Targets and the UN SDGs, finding solutions to restore landscapes is now essential.

OIA Niagara and Hamilton Branch Meeting



I was the speaker at the Ontario Institute of Agrologists (OIA), Niagara and Hamilton Branches meeting in December 2017, discussing the topic of "Development of Sustainable Agriculture in China and lessons for Canada." I discussed my ongoing project investigating the use of agrominerals for soil amendment.

Gender Summit 11: North America

Gender equality and LGBTQ inclusion are essential to achieve the SDGs and for all innovative and creative societies. The messages were very clear at the Gender Summit 11 North America (GS11NA). Presentations from women and men from different spheres and organizations clearly demonstrated the importance to move forward with a more inclusive world.

I was representing the Canadian Commission for UNESCO for the reception for the recipients of the L’Oreal Canada for Women in Science prizes. I had the opportunity to be invited to the Gender Summit in Montreal to participate in a panel on “Best Practices: Global Perspectives on Equity,

Diversity and Inclusion in STEM,” which was organized by Maryse Lassonde, Scientific Director, Fonds de recherche du Québec – Nature et technologie (FRQNT) and President, Royal Society of Canada. I underlined some of the work we’re doing with students, as well as the work of the Canadian Coalition of Women in Engineering, Science, Trades and Technology (CCWESTT) as well as the work of SAGA at UNESCO. It was very clear from discussion after the panel that there was a momentum and we could not stop once back home.

From there, we are starting a project to examine the non-linearity of women in science with a reflection paper to be published by the CCUNESCO and a special session on

this at the CCWESTT2018 Biennial Conference to be held in Edmonton at the end of May 2018.



How ecosystem governance can contribute to the SDGs



Since late 2014, the CEM has been working and reflecting on the concept of ecosystem governance. In the past year, I summarized the

activities that occurred during the First World Forum on Ecosystem Governance that was held in Beijing, China, October 2015. During this process, a decision was made to also produce a perspective paper that would serve as the basis of discussion for future meetings and the establishment of the new CEM thematic group on Ecosystem Governance. This manuscript entitled “Complex problems and unchallenged solutions: bringing ecosystem governance to the forefront of the UN Sustainable Development Goals” (Vasseur et al. 2017) was recently published in *Ambio*. It explores what ecosystem

governance can be and how it may become an essential component to achieve the 2030 Sustainable Development Goals. Ecosystem governance integrates the social and ecological components and is based on principles such as adaptive ecosystem co-management, subsidiarity, and telecoupling framework. It also related to issues of democracy, transparency, and accountability. As a follow up and in anticipation of the second forum in 2018, as lead of the Ecosystem Governance Thematic Group at CEM, I recently sent a call for case studies on urban-rural linkages. More to come over the next year on this.

Lydia Collas

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I am currently a student in the Sustainability Science & Society (SSAS) graduate program at Brock University, and supervised by Dr. Liette Vasseur. Having found the SSAS program to be a good fit for my research interests, I was able to pursue graduate study in Canada thanks to the Brock University Guernsey Postgraduate Scholarship. This award is made annually to a student from Guernsey (a very small island located in the English Channel) in tribute to the island being the birthplace of the University's namesake, Sir Isaac Brock!

With Liette, I am exploring the factors that underlie the adoption of different practices/technologies by farmers in the Southern Ontario region. Our research group is conducting field trials to examine the effects of using agrominerals (rock fertilizers), in combination with cover cropping, to maintain soil health. My part of this project seeks to explain farmers' intentions to adopt, or reject, these practices on their farmland. An understanding of the factors that drive adoption could enable barriers to adoption to be identified and addressed. This knowledge could facilitate the increased uptake of useful practices that best see yields maintained at least environmental cost, thereby enabling production targets to be met without detrimental environmental cost.

Gabriela Rosero

*Engineering student in Environmental
Biotechnology of Escuela Superior
Politécnica de Chimborazo | Ecuador*



I am Gabriela Rosero, an engineering student in Environmental Biotechnology of Escuela Superior Politécnica de Chimborazo – Ecuador, I have 24 years old and I live in the highland region in the country of the middle world. The topic for my undergraduate thesis research is Evaluation of Soil Organic Carbon in the Paramo Ecosystem of Chimborazo River Micro-Watershed based in Anthropic Activities. I obtained a scholarship by Emerging Leaders in the Americas Program for a semester in Canada to work in the Project "Cost-Benefit Analysis of the Conservation of the Andean Paramo Ecosystem and Social Acceptability

Considerations, and Building Resilience to Climate Change through Ecosystem Based Adaptation Approachment, in Central Ecuador".

During my period in Brock University I have been working in the proposal, methodology and desired results of the research, with tutoring of Dr. Liette Vasseur; also she has guided me in the search of information to my undergraduate thesis and I am glad for her friendship. Thanks this I keep a constant practice in reviewing, reading and writing of English language to get better my knowledge. My experience with ELAP has been enriching and unforgettable, I had the opportunity to work in topics of my studies area related with climate change, and know a beautiful country with friendly people and met friends whom made me enjoy every single day in Canada.