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UniMonde vise à accroître la visibilité des contributions universitaires au développement international



Community-engaged universities

Les universités au service de la collectivité



Association of Universities and Colleges of Canada
Association des universités et collèges du Canada

Editorial

by Robert White

Assistant Director, Partnership Programs

In many ways, universities themselves are communities of connectors and integrators, bringing together students and faculty, and working with a variety of partners to create knowledge. All parties benefit from this form of community engagement. Universities themselves are transformed as teaching and research are shaped by new ideas and insight from our partners. This in turn enhances the benefit to the broader communities around us in Canada and throughout the world.

Assembled in these pages are many concrete and often unique contributions that Canadian universities and their higher education partners in developing countries bring to international development. Many of these collaborations model new ways to partner with developing countries that speak to a southern-led, community-engaged vision of universities.

How partnering is done, with whom and for whom, are critical questions in North-South cooperation. This is something I've become more attuned to as I've had the privilege to become acquainted with leaders like John Gaventa, Director of the Coady International Institute at St. Francis Xavier University, who is featured in our article on the June 2012 Leaders' symposium hosted by the Association of Universities and Colleges of Canada and the International Development Research Centre. He makes the point that the role for northern universities in international development is shifting. Southern universities are increasingly driving the international development agenda, the importance of South-South networks is growing, and some of the biggest innovations in democracy are happening amongst these networks. These ideas challenge northern leadership and knowledge assumptions.

I am very happy that Peter Boothroyd, Professor Emeritus at the University of British Columbia, agreed to contribute a guest opinion piece. In it, he draws on his long experience in international development work that focusses on enhancing the potential of community-based planning to contribute to sustainability and equity. In his article, he explains how participatory development can strengthen universities as centres of learning connected to the communities around them. The collaborative governance that can emerge from participatory development has implications, Dr. Boothroyd says, for "the roles universities can play in leading long-term social learning and initiating collaborative problem solving."

It is in this spirit that this collection of stories from community-engaged universities is offered. We hope that these examples may inspire you to further advance the potential of these types of collaborations to a more sustainable global society.

Cover photo: Professor Gard Otis of the University of Guelph working with beekeeper trainee, Tran Thi Hoa, in the Hà Tĩnh province of Vietnam. The project's participatory methods have been key to its success. Photo: Association of Universities and Colleges of Canada

Éditorial

par Robert White

Directeur adjoint, Programmes de partenariats

Les universités sont, à de nombreux égards, de petites collectivités qui agissent comme agents de liaison, réunissant étudiants et professeurs, et collaborant avec divers partenaires en vue de générer des connaissances. Tout le monde bénéficie de cette forme d'engagement communautaire; les universités se transforment, l'enseignement et la recherche bénéficient des idées et des points de vue des partenaires, et l'ensemble de la collectivité en profite, au Canada comme dans le monde.

Nous avons rassemblé dans le présent numéro des articles qui portent sur les contributions concrètes souvent propres aux universités canadiennes et à leurs partenaires de pays en développement au développement international. Plusieurs de ces exemples illustrent de nouvelles manières de créer des partenariats avec ces derniers et une vision universitaire, dirigée par le Sud, qui fait place à la collaboration axée sur la collectivité.

Les questions qui concernent la manière de créer des partenariats, avec qui et pour qui, sont essentielles dans le cadre de la coopération Nord-Sud. C'est un concept avec lequel j'ai pu me familiariser grâce à des leaders comme John Gaventa, directeur du Coady International Institute de la St. Francis Xavier University, que j'ai eu le privilège de rencontrer et dont il est question dans l'article sur le Symposium des dirigeants organisé par l'Association des universités et collèges du Canada et le Centre de recherches pour le développement international en juin 2012. M. Gaventa y précise que le rôle des universités du Nord en matière de développement international est appelé à se transformer. Les universités du Sud prennent de plus en plus les rênes du développement international, le réseau Sud-Sud gagne en importance, et certaines des plus importantes innovations dans le domaine de la démocratie voient le jour parmi ces réseaux. Voilà qui met au défi bien des idées reçues concernant le leadership et le savoir du Nord.

Je suis ravi de la participation de Peter Boothroyd, professeur émérite à la University of British Columbia, qui a accepté de signer un article d'opinion. M. Boothroyd s'inspire de sa vaste expérience en développement international qui porte principalement sur l'amélioration du potentiel de la planification axée sur la collectivité pour atteindre la durabilité et l'équité. Dans son article, il explique comment le développement participatif renforce les universités à titre de centres d'apprentissage branchés sur les collectivités qui les entourent. La gouvernance collaborative susceptible de se dégager du développement participatif a des répercussions sur « les rôles que peuvent jouer les universités dans l'apprentissage social à long terme et la résolution de problèmes collaborative, » explique M. Boothroyd.

C'est dans cet esprit que des universités axées sur la collectivité présentent cette collection de récits. Nous espérons que leurs exemples inspireront l'avancement de ce type de collaborations vers une société mondiale durable.

Photo en page couverture : Gard Otis de la University of Guelph, en compagnie de Tran Thi Hoa, apprenti apicultrice, dans la province de Hà Tĩnh, au Vietnam. Les méthodes participatives du projet ont contribué à son succès. Photo : Association des universités et collèges du Canada

Expanding the university's role in international development

by Peter Boothroyd

Universities contribute to development by helping to preserve and generate knowledge, and by passing it on to future leaders, officials, professionals, and citizens. They have long contributed by fostering the evolving paradigms and technical expertise that shape the course of development at home and abroad, but only recently have they begun to see direct engagement with development practice as central to the academic mission. Students are now offered a variety of opportunities for learning and gaining academic credit through development work; and academic research oriented to analyzing and solving development problems is increasingly conducted with—not just on—communities, non-governmental organizations (NGOs), government, and businesses.

In this globalizing world, much of universities' engagement with development has an international dimension. One of the most effective forms involves partnering with overseas universities. The range of possibilities for international academic partnering can be appreciated by reading the seven articles in this issue of UniWorld. These describe projects or exchanges, funded by the Canadian International Development Agency (CIDA) or the International Development Research Centre (IDRC), to design and support implementation of:

- cost-effective medical treatments for correctible deformities such as clubfoot;
- approaches to improving maternal, neonatal and child health from a public health perspective;
- policies to improve social inclusion opportunities for youths in poor urban neighbourhoods;

- higher education programs to encourage agricultural or economy-diversifying entrepreneurship;
- farming or water management practices adaptive to drought and climate change; and
- technologies for responding to plant disease or for producing biofuels.



Development programs which draw on CIDA funding.

My own experiences confirm for me that overseas engagement, whether in partnership with fellow academics or with others, strengthens Canadian universities. Overseas engagement, like that at home, enables us

to synergistically link the three academic missions of education, research and community service. Firsthand, I have seen Canadian professors, students and interns deepen their understanding of complex development processes and hone their research skills as they participated in CIDA-funded University of British Columbia (UBC) projects conducted with Brazilians, Vietnamese and Thais. We learned as we helped overseas communities, governments and universities strengthen their capacities in such spheres as community-based watershed management, collaborative metropolitan governance, localized poverty reduction, and peoples' participation in rural planning.

Through academic partnerships such as these, Canadian and overseas academics learn from each other and invent together, often in co-operation with professionals, officials, leaders and other social actors. Societal development is efficiently served through impactful discoveries and focussed dissemination of knowledge. At the same time, the engaged universities, on both sides, enhance their capacities for teaching and research.

Apart from academic partnering, Canadian universities often contribute to international development by engaging directly with overseas governments at all levels, NGOs of all sizes, and firms of all kinds. The Canadian university brings to such engagement technical and conceptual knowledge—including lessons learned from Canadian experience—which complement knowledge held by members of host-country partner organizations. Canadian students, faculty and researchers benefit from exposure to overseas local knowledge and from opportunities for joint research. In many cases, vital support is provided by the Association of Universities and Colleges of Canada (AUCC) through its University Partnerships in Cooperation and Development or Students for

For example:

- With scholars at the Vietnam Academy of Social Sciences and five Vietnamese universities we learned from villagers about traditional associations that could be revived to strengthen social capital, and from local officials about possibilities for government-community-university co-operation in local activities. At another level, we became more appreciative of possibilities for enhancing development theory and practice through action-research, a process of

directly linking empirical study to the evaluation and re-planning of initiatives. We deepened our understanding

of *institutional action-research* by experimenting with the formation of inter-disciplinary engagement units and problem-based learning in partner universities, and our understanding of *participatory action-research* by testing microfinance, ecotourism, and other community development strategies.

- With officials and university scholars in five Brazilian urban regions, we learned about the political and social forces that militate against inter-municipal co-operation, but also about possibilities for building coalitions to overcome these forces so as to support regional services such as protection for women threatened by domestic violence or assistance to workers in the informal sector. This allowed us to design and test with a Brazilian university an on-line course that introduces

development-relevant concepts and explores their applicability to community-based action-research.

Unfortunately, engagement with development is rarely recognized as a worthy academic pursuit by international rankers of universities, and internally is too often viewed with suspicion. Engagement does not easily lead to refereed articles, and when it does, authorship is difficult to determine. For academics committed to international development, that's the bad news.

The good news is that universities – individually, and collectively through conferences and websites – are beginning to explore possibilities for engaging with development in ways that reinforce, rather than replace or detract from, the traditional education and research missions. One outcome could be highlighting contributions to development that engaged universities are uniquely positioned to make: for example, methodological

contributions to action-research, substantive contributions to knowledge of high-leverage strategies gained through synthesizing lessons from comparable projects, and conceptual contributions to development discourse.

Another outcome could be the identification and elaboration of principles, such as mutual respect and openness to mutual learning, that underlie efficacious international partnerships. If this happens, universities will be well placed to help redefine international development as involving not only the global South learning from the North, but also multi-directional learning and joint discovery. As John Gaventa, vice-president of international development at St. Francis Xavier University, pointed out at a recent North-South Leaders' symposium led by AUCC and sponsored by the IDRC, the North's universities need to sit at the table, not set it. Pointing in that direction, I believe, are the experiences portrayed in this issue of *UniWorld*. 

Peter Boothroyd is Professor Emeritus at UBC.

Accroître le rôle de l'université en matière de développement international

par Peter Boothroyd

Les universités participent au développement en aidant à préserver, à créer et à transmettre le savoir à de futurs dirigeants, professionnels et citoyens. Elles favorisent depuis longtemps l'évolution des concepts et de l'expertise technique qui orientent le développement, ici comme à l'étranger. Toutefois, la participation directe des universités n'a que récemment commencé à être intégrée à la mission universitaire. Les étudiants peuvent désormais apprendre et obtenir des crédits dans le cadre de projets de développement, et les recherches universitaires visant à analyser et à résoudre des problèmes sont de plus en plus réalisées en collaboration avec les collectivités, les organisations non gouvernementales (ONG), les gouvernements et les entreprises, qui auparavant en faisaient l'objet.

En cette ère de mondialisation, la plupart des travaux universitaires relatifs au développement revêtent une dimension internationale. Le partenariat avec des universités étrangères constitue à ce titre une formule des plus efficaces. Les sept articles du présent numéro d'UniMonde en résument les différentes modalités. On y décrit des projets et des échanges, financés par l'Agence canadienne de développement international (ACDI) ou le Centre de recherches pour le développement international (CRDI), qui visent la conception et la mise en œuvre :

- de traitements abordables pour corriger des malformations comme le pied bot;
- de stratégies d'amélioration de la santé maternelle, néonatale et infantile du point de vue de la santé publique;
- de politiques favorisant l'inclusion sociale chez les jeunes issus de quartiers urbains défavorisés;

- de programmes d'enseignement supérieur qui favorisent l'entrepreneuriat agricole ou qui sont axés sur la diversification de l'économie;
- de méthodes agricoles ou de gestion de l'eau adaptées à la sécheresse et aux changements climatiques;
- de technologies pour combattre les maladies végétales ou produire des biocarburants.

Dans le cadre de tels partenariats, les universitaires canadiens et étrangers apprennent et innovent ensemble, souvent en collaboration avec des professionnels, des fonctionnaires, des dirigeants et d'autres intervenants de la société. Les découvertes importantes et la diffusion ciblée du savoir servent efficacement le développement social. Simultanément, les

universités partenaires renforcent leur capacité d'enseignement et de recherche.

En plus de ce type de partenariat, la participation des universités canadiennes au développement international s'inscrit souvent dans une relation directe avec des gouvernements étrangers, des ONG et des entreprises de tous ordres. Les universités canadiennes assurent un soutien technique et conceptuel, enrichi par les leçons tirées de l'expérience canadienne et complémentaire aux connaissances des organisations du pays d'accueil. Les étudiants, professeurs et chercheurs canadiens bénéficient d'un contact avec des connaissances locales à l'étranger et des collaborations de recherche. Dans de nombreux cas, l'Association des universités et collèges du Canada (AUCC) fournit un appui essentiel par l'entremise soit de son programme de Partenariats universitaires en coopération et développement soit de son programme Étudiants pour le développement, financés par l'ACDI.

Je sais d'expérience que l'engagement profite aux universités canadiennes, qu'il s'agisse d'un partenariat entre universitaires ou avec d'autres intervenants. L'engagement à l'étranger, comme au pays, permet d'établir une synergie entre les trois missions universitaires : l'enseignement, la recherche et le service communautaire. J'ai vu des professeurs, des étudiants et des stagiaires canadiens approfondir leur compréhension des processus de développement complexes et parfaire leurs compétences en recherche en prenant part à des projets de la University of British Columbia (UBC) financés par l'ACDI et réalisés conjointement avec des collaborateurs brésiliens, vietnamiens et thaïlandais. Nous avons beaucoup appris en aidant des collectivités, des universités et des gouvernements étrangers à renforcer leurs capacités en matière de gestion communautaire des bassins hydrographiques, de gouvernance métropolitaine collaborative, de réduction localisée de la pauvreté et de participation populaire à l'aménagement rural. Par exemple :

- En collaboration avec les spécialistes de l'Académie des sciences sociales

du Vietnam et de cinq universités vietnamiennes, nous avons exploré, avec les villageois, le rétablissement d'associations traditionnelles visant à renforcer le capital social, et avec les fonctionnaires locaux, la possibilité d'amener le gouvernement, la collectivité et les universités à coopérer dans le cadre d'activités locales. Sur un autre plan, nous avons appris à valoriser la consolidation des théories et des méthodes de développement par la recherche-action, un procédé qui lie directement l'étude empirique à l'évaluation et à l'adaptation des initiatives. Nous avons approfondi notre compréhension de la *recherche-action institutionnelle* en expérimentant la mise en œuvre d'équipes interdisciplinaires et de ainsi que la méthode d'apprentissage par les problèmes dans des universités partenaires. Nous avons également exploré la *recherche-action participative* en testant des stratégies de développement communautaire, notamment de microfinancement et d'écotourisme.

- De concert avec des fonctionnaires et des universitaires de cinq régions urbaines du Brésil, nous avons d'abord étudié les forces sociales et politiques qui nuisent à la coopération intermunicipale, puis exploré la formation de coalitions pour les contrer; de manière à soutenir les services régionaux ayant trait à la protection des femmes victimes de violence conjugale à l'aide aux travailleurs du secteur non structuré. De concert avec une université brésilienne, nous avons ainsi pu concevoir et mettre à l'essai un cours en ligne sur les concepts relatifs au développement et leur applicabilité dans le cadre de la recherche-action communautaire.

Malheureusement, l'engagement en matière de développement est rarement reconnu comme un objectif valable par les responsables des classements internationaux des universités, il est aussi trop souvent envisagé avec méfiance au

sein même des établissements. Certes, de telles activités mènent difficilement à la publication d'articles évalués par les pairs. Lorsque tel est le cas, il est difficile d'établir qui en sont les auteurs. Pour les universitaires qui se consacrent au développement international, c'est une mauvaise nouvelle.

La bonne nouvelle cependant c'est que les universités commencent, individuellement et collectivement au moyen de conférences et de sites Web, à trouver des stratégies d'engagement qui renforcent les missions traditionnelles d'enseignement et de recherche au lieu de s'y substituer ou d'y nuire. Une telle évolution pourrait mener à la mise en valeur de l'apport essentiel des universités qui s'engagent au service du développement : leur apport méthodologique au domaine de la recherche-action, leur importante contribution à la compréhension des stratégies efficaces par la synthèse des leçons tirées de projets comparables, ainsi que leur apport conceptuel au discours sur le développement.

Cette évolution pourrait également déboucher sur l'élaboration d'un ensemble de principes qui soutiennent un partenariat international fructueux, comme le respect mutuel et l'ouverture à l'apprentissage réciproque. Les universités seraient alors bien placées pour contribuer à redéfinir le développement international, où l'unidirectionnalité Nord-Sud laisserait place à l'enseignement multilatéral et aux découvertes conjointes. Comme l'a dit John Gaventa, vice-président du développement international à l'Université St. Francis Xavier, lors d'un récent symposium Nord-Sud pour les dirigeants organisé par l'AUCC et parrainé par le CRDI, « les universités du Nord doivent participer à la discussion, et non la diriger. » Je crois que les expériences décrites dans le présent numéro d'UniMonde constituent un pas dans cette direction. 

Peter Boothroyd est professeur émérite de l'UBC.



A child receives treatment for clubfoot at the Mulago Hospital Clubfoot Clinic in Kampala, Uganda

Photo: Association of Universities and Colleges of Canada

Stepping up: Help for disabled children in Uganda

A model aid project offers a simple non-surgical treatment for clubfoot that is transforming the lives of thousands of children in Uganda

By Moira Farr

Since she was three months old, Nicole Kebirunji, now just over two years old, has been coming for treatments of her clubfoot at the Mulago National Referral Hospital in Kampala, Uganda. At this age, the prospects for correcting her deformity are excellent. Nicole's mother, Emily, has carefully followed instructions for managing her infant

daughter's casts and was willing to travel to a regional clinic nearly 100 km from her Kampala home to buy fitted braces that weren't available at the time through the Mulago Hospital. The goal is to make sure that Nicole will be walking normally, without braces, canes or crutches, by the time she's ready to go to school.

Emily Kebirunji has reason to be determined about her child's treatment. Nicole's future, and her family's, literally is at stake. With a severe deformity such as clubfoot—a congenital defect seen in 200,000 babies worldwide each year; 80 percent of them in the developing world—Nicole would face a life of poverty,

shame and social isolation. But with a successfully corrected foot, she can join her peers in receiving an education, gaining employment and leading as normal and happy a life as anyone else in her community.

Nicole is just one of more than 3,400 children in Uganda who have benefitted from an innovative and relatively inexpensive non-surgical treatment for clubfoot known as the Ponseti Method. It is now taught to thousands of Ugandan surgeons, nurses, paramedics, orthopedic technicians and other professionals in training modules at 38 schools of health-care across the country, and is available at low cost across a country-wide network of 40 clinics, thanks to the pioneering efforts of Shafique Pirani, an orthopedic surgeon and clinical professor at the University of British Columbia (UBC), as well as the public health approach, advocated and led by Professor Richard Mathias at the School for Public Health at UBC.

In 2004, Dr. Pirani and his Makerere University partners in Uganda, in partnership with Christian Blind Mission International and the Ugandan Ministry of Health, presented a proposal and received a C\$980,000 commitment from the Canadian International Development Agency (CIDA) and an \$820,000 in-kind contribution from the Ugandan and Canadian project partners to launch a project that would bring this cost-effective method to the country, train a range of health-care professionals to detect and treat clubfoot, and provide the support required to make it sustainable. "Now these children are able to go to school and mix with the other children without stigmatization," says Edward Naddumba, Ugandan project director and Head of the Department of Orthopedic Surgery at Makerere University, who continues to lecture on the project at conferences around the world and who sees about 20 clubfoot patients per day in his busy clinic. In addition, the Mulago Hospital Clubfoot Clinic is open twice a week with an average of 50 visits each week. It's the parents, as well, who benefit from de-

stigmatization, relieved the moment they arrive to find that help they can afford is available to their children.

An important ingredient to the project's success has been the partners' strategic decision to target sustainability in project design. The role of the Canadian partners and the use of funds were targeted at building in-country capacity for Ponseti clubfoot management and teaching. The Ugandan Ministry of Health accepted

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**Edward Naddumba,
Head of the Department
of Orthopedic Surgery,
Makerere University**

the responsibility of providing the resources and materials needed for the care of children (clinic space/staff and treatment materials in its hospitals.) For the most part the ministry has managed to do this. They have had constraints in the provision of an uninterrupted supply of plaster and braces. Hence parents can be faced with the problem of having to purchase these items. The project has always supported the desire of the ministry to provide the necessary resources, and therefore has avoided the temptation to fill the gap, except in very unusual circumstances. For the same reasons, the project has tended avoided subsidizing travel costs for parents.

The Uganda Sustainable Clubfoot Care Project has been so successful in raising public awareness, training professionals, providing parents with some financial help for casts, braces and transportation and ultimately correcting a life-altering disability that it was recognized by the World Health Organization (WHO), in its 2011 World

Report on Disability as a model for other developing countries to follow. Finding sustainable methods for treating childhood disabilities is recognized by CIDA as a key to reducing child poverty worldwide—ill health is the most commonly cited factor linked to poverty and unemployment in developing countries. At the invitation of the WHO, the project team is now developing guidelines for the management of clubfoot in developing nations that will inform the process for developing global standards for how disability should be taken into consideration in international development work. This formal process is similar to the one used to create standards for taking gender equality into account, a process now taken for granted as essential for effective development work.

Dr. Pirani knows what it's like to have a disability, having been left with a limp from polio suffered at age three. Born in Uganda, he moved to Canada with his family when he was 16. On a trip to his homeland in 1998, he was shocked and saddened to see both children and adults with untreated clubfoot lining the roads he travelled, social outcasts who lived in poverty and had no hope for their future. "I knew that unfortunately I couldn't do much for the adults, but I could help the children." Two years earlier, Dr. Pirani had become aware of a highly successful method for correcting clubfoot without surgery developed by Professor Ignacio Ponseti at the University of Iowa. The Ponseti Method uses a series of casts and braces from infancy, when the foot is mostly cartilage. Dr. Pirani commented that "had I made my trip back home five years earlier, I wouldn't have known about it, so it was a case of good timing."

Many other countries in Sub-Saharan Africa and elsewhere are in the process of implementing the project's training template themselves, and a scaled-up version of the model is about to be undertaken in Bangladesh. The treatment model piloted in Uganda is an unqualified success. More than anything, it's the children and their happy, reassured parents who know how critical the treatment will be to their quality of life. 



Students strengthen development in Ghana

by Debbie Lawes

They're known as "spirit children" in some communities in northern Ghana—babies born with physical or intellectual disabilities believed to be possessed by evil forces and a bad omen. They are often shunned by their communities and hidden away by families.

A local non-governmental organization (NGO) is working to change those attitudes and provide a future for these children with support from the Students

for Development (SFD) program funded by the Canadian International Development Agency (CIDA.)

Managed by the Association of Universities and Colleges of Canada, the SFD program is supporting 55 multi-year projects between Canadian universities and their partners in developing countries. The projects are engaging Canadian and developing country students in hands-on learning experiences that address

Evans Akannue Atim from Ghana's University for Development Studies spent a term at the University of Calgary as part of their Students for Development project.

Photo: University of Calgary

CIDA's priorities of securing the future of children and youth, increasing food security and stimulating economic growth.

The University of Calgary (U of C) International is implementing an SFD project in northeast Ghana which is led by Dr. Caesar Apentiik, a professor in development studies in the Faculty of Communication and Culture. Dr. Apentiik is collaborating with four groups in Ghana: the University for Development Studies

(UDS), the Presbyterian Community-Based Rehabilitation (CBR) project, the Foundation for Integrated and Strategic Development, and Balsa District National Youth Employment. One of the main goals of SFD is to help organizations like these to build capacity to address local problems.

Canadian students in Ghana

"Like many small rural NGOs, CBR lacks the staff to undertake certain activities, particularly in the areas of research and training, and this is where the Canadian student interns have made an important contribution," says CBR's program director, Maxwell Akandem, adding that interns also learn how NGOs operate and the on-the-ground challenges of development work.

"That's why it's important to match the needs of the NGOs with the experience and skills of interns," says Dr. Apentiik. "Research training is a big component of what we do. The interns conduct some of the research but also help train our partner organizations to do research, as well as program management, seminars and curriculum development."

At CBR, for example, one intern helped develop guidelines and held seminars to train teachers on integrating students with intellectual disabilities into the formal education system. The guidelines were distributed to about 500 teachers at more than 50 schools. Of these schools, only one offered a special education class.

"One of the main messages in the pamphlet is the importance of positive reinforcement," says Sean McDonough, a U of C development studies major and SFD intern who recently returned from Ghana. "Instead of scolding a student when they do something wrong, the pamphlet encourages teachers to reassure these students, stay positive and include them as much as possible in classroom activities, which creates a



University of Calgary students, Marisa Jimenez and Sean McDonough, with a friend in Sandema, Ghana. Photo: University of Calgary

positive feedback cycle of confidence in the student."

Another intern, Marisa Jimenez, set up "empowerment" clubs at local schools where students could discuss basic health issues, different causes of disabilities, local superstitions around disability and the rights of the disabled. (Ghana ratified the United Nations Convention on the Rights of People with Disabilities in 2006.)

Ms. Jimenez, a fourth-year student in development studies at the U of C, also helped raise funds for a local family whose daughter had noma, a gangrenous infection affecting the face. The money paid for the girl's reconstructive surgery in August.

"We learn a lot of theory in our course work, but in the field you learn the real barriers behind those theories, especially cultural barriers," she says. "These internships are a great way to get first-hand experience. They also give you real edge in your career development."

Ghanaian students in Canada


As part of the SFD program, students from developing countries spend one term in Canada where they can access the academic journals, technology and other resources needed to complete their theses and dissertations. It is unique because the foreign students who come to Canada

to study are still students at their home university. "When they leave here, they go home to finish their degree and contribute to their community," Dr. Apentiik explains.

Evans Akannue Atim from the UDS in Ghana is at the U of C finishing his master's thesis on the food security issues related to the boom in small-scale mining in his country. "This has become an issue of national concern," says Mr. Atim. "It has resulted in a labour shift with young people all going into mining. Agriculture is now seen as an occupation for the aged, so food security is greatly threatened in many regions of Ghana."

Networking and public engagement are the other key components of the SFD program. Over the past two years, students from development studies clubs at UDS and U of C shared their views over Skype on Canada's role in international development and the role of partner countries in their own development. The U of C is also working on a new website and blog where students from both countries can post and discuss development issues.

The project is garnering attention within U of C and beyond. A cover story on the interns' work in Ghana was featured in the university's alumni magazine and in the student newspaper. Interns have given presentations about their work at a community café on campus, at schools in the Yukon and, in early October, at the Canada World Youth Leadership Awards in Calgary.

The dialogue goes both ways. In mid-October, Mr. Atim provided Dr. Apentiik's development studies class a Ghanaian perspective on one recurring problem in international development. "Too many donor projects fail because there is no community ownership," he explains. "You can't undermine indigenous knowledge and the people need to be involved in all aspects of the project so that it doesn't die when you leave. For development to work, it needs to be sustainable." 

Université Gaston-Berger students and assistant project officer, M^{me} Fatou Bintou Gueye (second from left), on a field visit with farmers from Senegal's South Sikassa region and Patrick Razakamananifidiny of Université du Québec à Trois-Rivières (front centre).

Photo: Université du Québec à Trois-Rivières



Universities take on hunger

Université du Québec à Trois-Rivières and Université Gaston-Berger are working towards making a university farm in Senegal more sustainable to improve the country's agricultural production

by Olivier Robichaud

In the Saint-Louis region of Senegal, 42 percent of the population lives below the poverty line. Famine is a common phenomenon in this region, which is actually wealthier than elsewhere, and this is in spite of economic growth exceeding 5 percent annually. Even university students sometimes find it difficult to find proper nourishment, as shown in a document prepared by the Université du Québec à Trois-Rivières (UQTR) and the Université Gaston-Berger (UGB). "Farmers in this region have two major problems," says Patrick Razakamananifidiny, an international development counselor at UQTR. "There is the seasonality problem, because they have a lot of trouble conserving and storing surplus production for later, and there is the commercialization problem.

The products aren't making their way to the markets on time."

In this context, the University Agricultural Farm (UAF), situated on UGB's campus near the city of Saint-Louis, has been called upon since 2004, in partnership with the Senegalese government and international agencies, to further economic development and fight hunger in the region by training future agricultural entrepreneurs. Agriculture remains the economic backbone of the country. Thanks to a partnership with UQTR, UGB wants to turn its farm into a model of sustainability and regional economic development. This project is part of a partnership between the two universities that dates back to 2009 and has led to, among other things, the

deployment of the Senegalese institution's strategic plan.

The purpose of the farm was to improve food security and reduce poverty in the Saint-Louis region by training agricultural entrepreneurs and managers who would be better equipped to raise production levels. After overcoming a few obstacles, the farm harvested its first crops in 2008. Ever since, annual harvests have allowed UGB to offer its students and the community easier access to fresh food at a low cost.

However, after the departure of one of the UAF's international partners, UGB needed to find a way to make the farm more sustainable and autonomous. The university, alongside UQTR, therefore responded to a call for bids from the

Association of Universities and Colleges of Canada and the Association of African Universities for the Strengthening Higher Education Stakeholder Relations in Africa project financed by the Canadian International Development Agency. The proposal was to develop a case study which would enable the two universities to determine best practices in agricultural management.

“The most important thing is to perennialize the farm,” says Mr. Razakamanifidiny, who is in charge of the Canadian part of

the project. “On the one hand, it has to become a viable tool for university training and research while at the same time generating revenue for UGB, and on the other hand, it has to develop ties with private farms.” These ties should ensure the university can fulfill its mission of developing the local economy and reducing poverty in the region.

Mr. Razakamanifidiny and his Senegalese counterpart, Mateugue Diack, presented their study during a workshop in Accra, Ghana last June. The study detailed how the farm was set up, the obstacles it had to overcome, the success stories as well as the importance of the UAF to the Saint-Louis region.

Six studies were presented at the workshop including the one from UQTR and UGB, to determine the best practices in terms of building partnerships between universities and their socioeconomic milieu. From this experience, UQTR and UGB have come up with new projects to improve the farm’s viability, but also

“We want to start a project where we create networks between seed producers, vegetable producers, industrial growers and merchants in order for them to integrate their activities and learn to work together.”

Patrick Razakamanifidiny, Université du Québec à Trois-Rivières

to improve access to nutritious food. “We want to start a project where we create networks between seed producers, vegetable producers, industrial growers and merchants in order for them to integrate their activities and learn to work together,” explains Mr. Razakamanifidiny. “We want to increase the rate at which products can flow onto the market.”


According to Sylvain Benoît, director of the International Affairs Bureau at UQTR, universities on both continents have much to gain from strong collaboration. “There is a very large transfer of expertise from one university to the other,” he says. “We also signed mobility agreements; there are student exchanges and professor exchanges.

And our university improves its reputation.”

Mr. Benoît also says that “both universities have the same kind of constraints, but also the same mission, and that is research and teaching. We understand each other very well.”

According to him, non-governmental organizations that do international development do not necessarily share the same kind of understanding.

The most important benefits if the upcoming projects succeed, however, will be for the people of

Saint-Louis, because the UAF not only provides good food: it also increases the wealth of the entire region by creating a new class of agricultural entrepreneurs and managers. In fact, the training offered there is truly a vehicle for the social integration of youths and the betterment of society. Mr. Benoît says that “75 percent of youths have found work with the farm’s partners in agribusiness, and 25 percent have started their own farm.” The UAF has also allowed twenty youths that are in charge of a family in Saint-Louis or its surrounding villages to find jobs, giving them a source of revenue that can help raise their standards of living and reduce poverty in the area. 

Les universités combattent la faim

L’Université du Québec à Trois-Rivières et l’Université Gaston-Berger contribuent à la pérennisation d’une ferme universitaire pour améliorer la production agricole au Sénégal

par Olivier Robichaud

Dans la région de Saint-Louis, au Sénégal, 42 pour cent de la population vit sous le seuil de pauvreté. La famine est un phénomène répandu dans cette région pourtant plus nantie que d’autres du Sénégal, et ce malgré une croissance économique annuelle dépassant les cinq pour cent. Même les étudiants universitaires ont parfois de la

difficulté à se nourrir sainement, comme le confirme un document préparé par l’Université du Québec à Trois-Rivières (UQTR) et l’Université Gaston-Berger (UGB.) « Les producteurs de cette région ont deux problèmes majeurs, » explique Patrick Razakamanifidiny, conseiller en développement international à l’UQTR. « Il y a le problème de la saisonnalité des

produits, parce qu’ils ont de la difficulté à conserver et à stocker les surplus pour les écouler plus tard, et il y a le problème de la commercialisation. Les produits ne se vendent pas à temps dans les marchés. »

C’est dans ce contexte que la ferme agricole universitaire (FAU), située sur le campus de l’UGB, près de la ville de Saint-Louis, a été mise à contribution depuis 2004,

en partenariat avec le gouvernement sénégalais et des agences internationales, pour le développement économique et alimentaire de la région, par le biais de la formation de futurs entrepreneurs en agriculture, pilier économique du pays. Grâce à un partenariat avec l'UQTR, l'UGB veut faire de sa ferme un



Quelques élèves apprentis de l'école-atelier d'agriculture de la ferme agricole de l'Université Gaston-Berger, en action pour une production expérimentale de légumes. Photo : Université du Québec à Trois-Rivières

modèle de viabilité et de développement économique régional. Ce projet s'insère dans un partenariat entamé en 2009 entre l'UQTR et l'UGB, notamment pour la mise en œuvre du plan stratégique de l'établissement sénégalais.

L'utilisation de la ferme visait à améliorer la sécurité alimentaire et réduire la pauvreté dans la région de Saint-Louis en formant des entrepreneurs et des gestionnaires agricoles mieux outillés pour améliorer leur production. Après quelques embûches, la première récolte a eu lieu en 2008. Depuis, les récoltes annuelles ont permis à l'UGB d'offrir à ses étudiants et à la communauté un meilleur accès à des aliments frais à bas prix.

Après le retrait d'un des partenaires internationaux de la FAU, l'UGB devait trouver le moyen de rendre la ferme viable et autonome. Les responsables de la ferme, de concert avec l'UQTR, ont répondu à l'appel d'offres de l'Association des universités et collèges du Canada et de l'Association des universités africaines dans le cadre du projet Renforcement des Relations avec les Intervenants du Secteur de l'Enseignement Supérieur en Afrique, financé par l'Agence canadienne de développement international. Il était question de faire une étude de cas qui permettrait aux deux universités de mettre en place les meilleures pratiques de gestion dans le domaine de l'agriculture.

« Le plus important c'est de pouvoir pérenniser la ferme agricole, » affirme M. Razakamananifidiny, responsable canadien du projet. « Il faut d'une part que celle-ci devienne une activité viable de formation et de recherche universitaires tout en générant des revenus pour l'UGB, et il faut, d'autre part, développer des liens avec les entreprises privées d'exploitation agricole. » Ces liens doivent permettre à l'Université de remplir sa mission au service du développement économique et de la réduction de la pauvreté dans la région.

M. Razakamananifidiny et son homologue sénégalais, Mateugue Diack, ont présenté leur étude lors d'un atelier à Accra, au Ghana, en juin dernier. L'étude présentait la mise en place de la ferme, les embûches, les réussites ainsi que l'importance que celle-ci a prise dans la région de Saint-Louis.

Cinq autres études de cas ont été mises en commun avec celle de la FAU à Accra pour dégager les meilleures pratiques en termes de relations entre une université et son milieu socioéconomique. De cette mise en commun, l'UQTR et l'UGB ont proposé de nouveaux projets pour améliorer la viabilité de la ferme, mais aussi pour améliorer l'accès aux aliments sains. « On veut lancer un projet pour mettre en réseau les producteurs de semences, les producteurs de légumes, les agro-industriels et les commerçants pour qu'ils puissent intégrer leurs activités et


apprendre à mieux travailler ensemble, explique M. Razakamananifidiny. On veut augmenter le taux d'écoulement sur le marché de ce qui est produit. »

Selon Sylvain Benoît, directeur du Bureau des relations internationales de l'UQTR, les universités des deux continents ont beaucoup à gagner d'une collaboration plus

forte. « Il y a un transfert d'expertise très important d'une université à l'autre, » dit-il. « On fait aussi des ententes de mobilité, il y a des échanges de professeurs et d'étudiants. Et nous, on en retire un rayonnement important. »

Selon M. Benoît, « les deux universités ont les mêmes contraintes, mais surtout les mêmes missions, soit la recherche et l'enseignement; on se comprend très bien. » Une réalité qui, selon lui, n'est pas nécessairement celle des organisations non gouvernementales.

Ce sont toutefois les habitants de Saint-Louis qui profiteront le plus de ces partenariats, si les projets sont concluants, car la FAU ne fait pas que répondre aux besoins alimentaires : elle augmente la richesse de toute la région en formant une nouvelle classe d'entrepreneurs et de gestionnaires agricoles. En effet, la formation constitue une véritable intégration sociale des jeunes au service de la société.

M. Benoit affirme que « 75 pour cent des jeunes formés ont trouvé du travail au sein des industries agro-industrielles partenaires de la ferme, et 25 pour cent ont créé leur propre exploitation agricole. » La FAU a également permis à une vingtaine de jeunes responsables de familles résidant dans la ville de Saint-Louis et les villages environnants de décrocher des emplois, sources de revenus qui participent à l'amélioration de leurs conditions de vie et à la réduction de la pauvreté. 



Beekeeping reduces poverty in Vietnam

by Gerry Toomey

Beekeeping has proven to be lucrative and enjoyable part-time work for villagers in six communes of Vietnam who were trained by that country's Bee Research and Development Centre (BRDC.)

As part of a collaborative six-year project with University of Guelph researchers, BRDC extension staff learned participatory training methods. They then applied the new knowledge in their outreach work with 195 beekeeping trainees, many of them novices, in Hà Tĩnh province. The project is funded by the Canadian International Development Agency's (CIDA's) University Partnerships in Development and Cooperation Tier 2 program.

Extension workers in the six participating communes plus 25 from other communes were also trained in modern beekeeping methods. Additionally, in 2011, the project staged a workshop on partici-

patory methods for 13 apicultural personnel from seven Vietnamese universities.

The regional market for honey is very robust, with prices actually rising as the communities have become recognized for their production of "forest honey." The honey produced is particularly fragrant and savory. The common assumption that success means exporting honey is not true in this case; the development of the local and regional market for honey is more lucrative.

A key benefit to the participating villagers has been an average increase in annual income of about C\$200 per person from beekeeping — mostly from honey sales, but also from selling hives and beeswax. The average increase represents a big economic boost for these villagers, most of whom are poor farmers. As of 2011, beekeeping accounted for about 14 percent of participants' income, a dramatic increase from just a few years earlier.

A local farmer shares the success of his hives with fellow beekeepers.

Photo: Association of Universities and Colleges of Canada

Nearly half the participants were totally new to beekeeping. Those who did have some previous experience with bees were either honey hunting in the forest or using log hives that cannot be managed. The training centred on providing an alternative to those traditional methods: management of the local bees in constructed beehives from which honey yields are five to 10 times greater than from log hives.

At the beginning of each training program, each participant received two hives. A May 2012 evaluation of this project showed that by the end of 2011, the average number of hives managed at home by participants had nearly tripled.

While the group-wide gains in honey and hive production and related income have been impressive, the statistics mask some remarkable advances by individuals. "A few participants have pretty well doubled their income," reports Canadian

project leader Gard Otis, a bee expert and professor in Guelph's School of Environmental Sciences.

Among the most productive of the project's graduate trainees, says Prof. Otis, is Phan Xuan Ly, a farmer in Son Diem Commune. Before taking up beekeeping, he had to spend two months a year as a dollar-a-day farm labourer to supplement his meagre farming income. "He had no bees at the start of the training in November 2008," says Prof. Otis. "But now he makes more than \$1,000 per year from sales of honey and bees." As of October 2011, Mr. Ly was managing 24 hives and that year alone had sold 10 hives with bees for an extra \$300.

Other participants report that beekeeping has benefited their family life. "You have to be gentle when working with bees," says a trainee. "So I learned to be gentle with my family as well... so we are happier."

Besides the social and economic advantages to the beekeepers themselves, bees are also key pollinators of crops in Vietnam, including coffee and jujube, or Chinese apple. As part of the BRDC-Guelph project, Vietnamese biologist Hanh Pham Duc obtained his PhD at the University of Guelph, conducting his thesis research on the importance of insect pollination to crops in Vietnam.

His investigations showed that honey bee pollination has an annual value of approximately \$1 billion to Vietnam's economy. This information has been shared by the project on Vietnamese television in conjunction with an agricultural news program to counteract widespread misconceptions in Vietnam about the interactions of bees with crops. Dr. Hanh has been appointed director of BRDC and has returned to the Hanoi-based centre to take up his new duties.

Much of the beekeeping project's success is due to a change in strategy by BRDC staff. By adopting participatory training methods, combined with good technical information, BRDC extension workers have become particularly effective. During the project, the drop-out rate by beekeeper participants was close to nil—a remarkable achievement by any educational standard.


In the April 2012 evaluation by two Guelph social scientists and two student research assistants, a BRDC beekeeping trainer reported that before the project, the teaching was 80 percent theory and 20 percent practice, and the practical component had not included the use of real beehives.

But the trainer says all this has changed. "With this project, the teaching has been

about 90 percent practice (with hives) and 10 percent theory. The project allows everybody to talk and practise making and managing hives... rather than just listening to how it is done."

Participatory methods are also applied at the local level. Local bee clubs have been established in each commune. The clubs provide a place where newly initiated and experienced beekeepers can exchange knowledge. They can work collaboratively to find solutions to problems that come up, learning from each other's experience and working together to build the local industry.

In May 2010, BRDC organized a Honey Day bringing together all the bee clubs in Hà Tĩnh province, giving local communities a chance to learn more about honey and honey bees and providing a marketing opportunity for the producers. The event was a success, helping raise the profile of northwest Hà Tĩnh province as an area to buy high-quality honey and honey bees.

There are reasons to believe that the Vietnamese bee industry catalyzed by this project will continue to expand and flourish: the participatory methods used created local ownership, and the industry is lucrative for individual farmers and adds significant value to Vietnamese cash crops. 

The enthusiasm of University of Guelph and BRDC personnel for their work with beekeepers is no surprise to the University of British Columbia (UBC) professor, Peter Boothroyd, who led CIDA-funded projects in Vietnam starting in 1991. As he wrote in a paper for the 2012 International Conference on Vietnam Studies in Hanoi, "We feel lucky to have had the opportunity to learn from and with Vietnamese colleagues."

He notes that the UBC's Tier I project, Localized Poverty Reduction in Vietnam (LPRV, 1998-2003) reduced poverty in some communes. Local economic and health benefits resulted from a strengthening of local co-operation and the dissemination of innovative technology—for example, in pepper tree cultivation and human sanitation. But even more important for the long term, says Prof. Boothroyd, was a broader social benefit: joint learning by Vietnamese and Canadians in areas such as traditional ecological knowledge, indigenous mutual-aid norms, the gendered nature of poverty, and university contributions to collaborative problem solving. Université Laval and World

University Service of Canada also participated in that project.

As with Guelph's beekeeping initiative, the UBC-coordinated project in 15 communes of Vietnam fostered cooperation, not just between university researchers and community members, but also with local government. Such buy-in by local authorities increases the chances of long-term success of social and technical innovations, as well as their wider adoption and replication.

"For me personally," concludes Prof. Boothroyd, "the LPRV experience provided two overarching sets of lessons: lessons about the ways community engagement can strengthen universities as centres of learning; and lessons about the potential of collaborative governance to contribute to sustainable development. Together, these lessons have enriched my understanding of what participatory development (as opposed to technocratic development) ideally means, and of the roles universities can play in leading long-term social learning and initiating collaborative problem solving."



A successful exchange program with African researchers

Dr. Carole Beaulieu from the Université de Sherbrooke instructs a class at the Université de Yaoundé.

Photo: Carole Beaulieu

Positive results from pilot program may lead to a second phase

By Mark Foss

Taking a page from its successful exchange program between Canadian researchers and counterparts in Latin America and the Caribbean, the Association of Universities and Colleges of Canada (AUCC) recently concluded a pilot research exchange program between Canada and Africa. Preliminary results are impressive enough for the association to propose a new phase.

"We are very excited about what the researchers were able to accomplish through the pilot program," said Claire Millington, who manages AUCC's international initiatives and exchanges. "And we look forward to developing the next phase with the International Development Research Centre (IDRC.)"

The pilot, known as the Canada-Africa Research Exchange Grants (CAREG), was

funded by IDRC and administered by AUCC. It was modeled on IDRC's similar program for Latin America which has been in existence since 1995.

Of 54 eligible proposals received, the CAREG selection committee awarded eight grants worth C\$29,000 to \$40,000 each. African researchers were to stay three to six months in Canada, while Canadian participants were to spend at

least six weeks at the African institution. The grant covered the cost of travel and accommodation, hiring replacement instructors and some equipment and resources for research. As part of their contract, partners contributed at least one-third of the project's total cost.

The eight winning proposals generated knowledge in a variety of pressing areas. Two projects explored more sustainable options to conventional fuels, while two others examined aspects of adapting to climate change. Others pursued research in the agricultural and health sectors. Apart from their immediate contributions to development, the projects also promised to inform policy and practice at local and national levels.

The University of Toronto and the Forest Research Institute of Ghana teamed up to address climate change.

Working with Ghanaian producers, the researchers showed that migrant farmers play a key role in transferring knowledge about drought-resistant practices to previously isolated social networks. They also used innovative geo-mapping technologies to determine how adopted practices such as planting shade trees affected crop production. Ultimately, they demonstrated that root zones are more dispersed in systems with more than one species and thus presumably more effective at using water resources efficiently.

Water retention is also a major issue in Algeria, which loses millions of cubic metres of water each year due to evaporation and siltation in hydro installations. In the region of Biskra, for example, the Foug El Ghorza dam can retain only two-thirds of its capacity due to siltation.

By developing models with specialized software, researchers at the Institut National de Recherche Scientifique and Université

de Biskra improved predictions of extreme weather in target sites in Biskra. Following the analysis, the team modified the model to provide a multidisciplinary tool for local decision-makers. Ultimately, the models will help improve management of siltation, as well as produce better flood forecasting. The tools will be useful for all hydrological events throughout North Africa.

Several of the projects generated unexpected results. Working with two


experimental protocol for evaluating the stability of a biodiesel-diesel blend in internal combustion engines. Their results move Mali further along the path to developing a national biofuels industry.

Researchers at Western University in London, Ontario, and Kwame Nkrumah University of Science and Technology in Ghana had a different approach to producing biofuel, taking advantage of recycled waste oil. They believed this

would close the loop between farming, food production and waste generation. To that end, they sought to produce biodiesel fuel from waste cooking oil and *Jatropha* oil. Building on its promising results, the team began designing a biodiesel pilot plant in Ghana and exploring the feasibility of full-scale production.

Besides having a potential long-

term impact on policy and practices, the CAREG projects cemented relationships between researchers in Canada and Africa. For example, while the University of Manitoba and University of Nairobi in Kenya have been collaborating for more than three decades, CAREG gave them the opportunity to research maternal, neonatal and child health from a broad public health perspective for the first time. Lisa Avery, the lead Canadian researcher, said that the ability to mentor new researchers, foster new research networks and improve research capacity helped both universities in their maternal child health research.

When the pilot phase ended, AUCC held a workshop in Ottawa to explore results, attracting 21 participants, including nine from Africa, attending in person or through Skype. The association is drawing on the discussions to develop recommendations that could be integrated into a second phase of CAREG. 

“The mentorship of new researchers, fostering of new research networks, and improved research capacity helped both universities achieve excellence in maternal child health research and has led to the establishment of a longstanding partnership among all involved.”

Lisa Avery, University of Manitoba, Canada

African students to develop biocontrols to fight brown rot in cocoa plants, a research team from Université de Sherbrooke in Quebec and Université de Yaoundé in Cameroon discovered a strain of bacteria that belonged to a new species. They subsequently produced an antibiotic that was also found to stimulate the growth of cocoa plants. Once the structure of the antibiotic molecule had stabilized, the team planned to patent its discovery, which may interest the pharmaceutical industry as well as the agricultural community.

While these teams were working in Cameroon to protect an edible plant, other researchers in West Africa were exploring the properties of a non-edible one. A team at the Université du Québec à Trois-Rivières and École Nationale d'Ingénieurs Abderhamane Baba Touré in Mali tested varieties of oil from the *Jatropha* plant, identifying clarity, viscosity, acid levels and other properties. They also developed an



Ernest K. Yanful
Ernest K. Yanful
Les partenaires de projet, MM. Yanful et Mensah, discutent de leurs résultats à Ottawa.

Photo : Helen Murphy

Un programme d'échanges fructueux avec des chercheurs africains

Les résultats positifs d'un projet pilote pourraient mener à une seconde phase

Par Mark Foss

L'Association des universités et collèges du Canada (AUCC) a récemment terminé un programme pilote d'échanges entre des chercheurs du Canada et de l'Afrique qui était inspiré de son programme d'échanges entre des chercheurs du Canada et leurs collègues de l'Amérique latine et des Caraïbes. L'AUCC estime que les résultats préliminaires sont suffisamment impressionnants pour lancer une nouvelle phase du projet.

« Ce que les chercheurs ont accompli dans le cadre du programme pilote nous a ravis, » a affirmé Claire Millington, gestionnaire des Initiatives et échanges internationales à l'AUCC. « Nous sommes enthousiastes à l'idée d'élaborer la prochaine phase de concert avec le Centre de recherches pour le développement international (CRDI.) »

Le programme pilote intitulé Subventions pour la coopération en recherche entre le Canada et l'Afrique (SCR-CA), financé par le CRDI et administré par l'AUCC, s'appuyait sur le modèle du programme Subventions pour la collaboration en recherche entre le Canada, l'Amérique latine et les Antilles, un programme similaire qui existe depuis 1995.

Des 54 propositions admissibles, le comité de sélection du programme SCR-CA en a retenu huit à qui il a remis des subventions d'une valeur allant de 29 000 \$ à 40 000 \$CAN chacune. Les chercheurs africains étaient tenus de passer de trois à six mois au Canada, et les chercheurs canadiens, au moins six semaines en Afrique. La subvention servait à couvrir les frais d'hébergement et de déplacement, les coûts liés à l'embauche

de remplaçants et le coût de certains types d'équipement et de ressources utilisés pour la recherche. Selon les modalités du contrat, les partenaires devaient couvrir au moins le tiers du coût total des projets.

Les huit propositions retenues ont permis d'acquérir des connaissances dans une variété de domaines. Deux projets ont étudié des solutions viables de remplacement des carburants traditionnels, tandis que deux autres se sont penchés sur certains aspects de l'adaptation aux changements climatiques. D'autres recherches ont porté sur les secteurs de l'agriculture et de la santé. En plus de contribuer de manière immédiate au développement, ces projets vont aussi orienter les politiques et la pratique à l'échelle locale et nationale.

La University of Toronto et l'Institut de recherche forestière du Ghana se sont associés pour lutter contre les changements climatiques. En collaboration avec des producteurs ghanéens, des chercheurs ont démontré que les agriculteurs migrants jouent un rôle clé dans le transfert de connaissances sur les pratiques résistantes à la sécheresse entre groupes sociaux auparavant isolés. Ils ont également utilisé des technologies de géocartographie pour déterminer comment l'adoption de pratiques comme la plantation d'arbres d'ombrage influe sur les cultures agricoles. Ils ont ultimement démontré que les zones racinaires sont plus dispersées dans les systèmes regroupant plus d'une espèce et que, par conséquent, elles utilisent probablement les ressources hydriques plus efficacement.

La rétention de l'eau est un enjeu crucial en Algérie, qui perd des millions de mètres cubes d'eau chaque année en raison de l'évaporation et de l'envasement qui touchent ses installations hydrologiques. Dans la région de Biskra, par exemple, l'envasement du barrage de Fom El Gherza réduit du tiers la capacité de rétention de cette installation.

En concevant des modèles à l'aide de logiciels spécialisés, des chercheurs de l'Institut national de la recherche scientifique et de l'Université de Biskra ont amélioré la prévisibilité des conditions météorologiques extrêmes susceptibles de toucher certains sites de la région de Biskra. À la suite de l'analyse, l'équipe a apporté des modifications à ses modèles afin de proposer aux décideurs locaux un véritable outil multidisciplinaire. Au bout du compte, les modèles contribueront à améliorer la gestion de l'envasement et la prévisibilité des inondations. Ces outils seront utiles pour l'ensemble des activités hydrologiques partout en Afrique du Nord.

Plusieurs projets ont généré des résultats inattendus. En travaillant en collaboration avec deux étudiants africains sur des agents biologiques de lutte contre la pourriture brune qui touche les cacaoyers, une équipe de chercheurs de l'Université de Sherbrooke, au Québec, et de l'Université de Yaoundé, au Cameroun, a découvert une souche bactérienne appartenant à une nouvelle espèce. Ils

Des chercheurs de la Western University, en Ontario, et de l'Université de sciences et de technologie Kwame Nkrumah, au Ghana, ont étudié une méthode différente de production de biocarburants : le recyclage de l'huile usée. Puisqu'ils croyaient que cette méthode permettrait de compléter le cycle de l'agriculture, de la production alimentaire et de la production de déchets, ils ont

tenté de produire du biocarburant à partir d'huile de cuisson usée et de jatropha. À la lumière des résultats obtenus, l'équipe a entrepris la conception d'une usine pilote de biodiesel au Ghana et analysé la faisabilité d'une production à grande échelle.

En plus de ses conséquences


« Notre participation au programme SCR-CA nous a permis de diffuser les résultats de recherche, de susciter l'intérêt du plus grand nombre d'étudiants possible dans notre recherche et d'apprendre de nouvelles méthodes de travail très fructueuses. »

Benkhaled Abdelkader, Université de Biskra, Algérie

sont ensuite parvenus à produire un antibiotique qui, entre autre, stimule la croissance des cacaoyers. Une fois la structure de la molécule antibiotique stabilisée, l'équipe prévoit faire breveter sa découverte, qui pourrait intéresser l'industrie pharmaceutique ainsi que le milieu agricole.

Tandis que cette équipe s'efforçait de protéger une plante comestible au Cameroun, d'autres chercheurs ont étudié les propriétés d'une plante non comestible en Afrique de l'Ouest. Une équipe de l'Université du Québec à Trois-Rivières et de l'École Nationale d'Ingénieurs Abderhamane Baba Touré, au Mali, ont mis testé diverses variétés d'huile de la plante de jatropha afin d'en déterminer la limpidité, la viscosité, le niveau d'acidité et d'autres propriétés. Ils ont également mis au point un protocole expérimental d'évaluation de la stabilité d'un mélange de diesel et de biodiesel dans les moteurs à combustion interne. Les résultats de leurs recherches aideront le Mali à se doter d'une industrie nationale des biocarburants.

potentielles à long terme sur les politiques et les pratiques, les projets du programme SCR-CA ont consolidé les relations entre les chercheurs canadiens et africains. La University of Manitoba et l'Université de Nairobi, au Kenya, par exemple, collaborent depuis plus de trois décennies, mais le programme SCR-CA leur a permis d'effectuer, pour la première fois, des recherches axées sur la santé maternelle, néonatale et infantile dans une optique de santé publique. Selon Lisa Avery, chercheuse principale canadienne, la possibilité d'encadrer de nouveaux chercheurs, d'entretenir de nouveaux réseaux de recherche et d'améliorer les capacités de recherche a contribué aux recherches en santé maternelle des deux universités.

Après la conclusion de la phase pilote, l'AUCC a organisé un atelier à Ottawa afin d'en étudier les résultats. Vingt-et-un participants, dont neuf de l'Afrique, y ont pris part, en personne ou par l'entremise de Skype. L'Association s'inspire des discussions pour formuler des recommandations en vue de la seconde phase du programme SCR-CA. 



Collaborative research in the Caribbean

Focussing on the next generation in Jamaica and Trinidad and Tobago

By Robyn Jeffrey

A mural in the Rose Town neighbourhood of Kingston, Jamaica. The area is the focus of a comparative study on underprivileged youth.

Photo: Beverley Mullings

Researchers from Canada and the Caribbean now have more opportunities to collaborate, thanks to the Latin American and the Caribbean Research Exchange Grants (LACREG) program. Managed by the Association of Universities and Colleges of Canada on behalf of the International Development Research Centre (IDRC), LACREG strengthens partnerships and networks among Canadian, Latin American and Caribbean academic researchers. It provides up to C\$15,000 to support small collaborative research activities that help create, disseminate and apply knowledge related to IDRC's priorities.

The 2011 LACREG competition marked the first time that universities from Jamaica and Trinidad and Tobago were invited to participate in the program. Below, UniWorld highlights research plans and preliminary findings from two of the funded projects currently underway. Both started in February 2012 and are scheduled to finish in early 2013.

Connecting underprivileged youth of African-Caribbean descent

When Anneka Marshall told people she was going to do research in Rose Town, an impoverished neighbourhood in Kingston, Jamaica, they couldn't understand why. They said she would be "killed, mugged or beaten up."

"None of the things that I had heard were at all true," says Dr. Marshall, a lecturer in the Institute for Gender and Development Studies at the University of the West Indies, Jamaica. Her experience nevertheless illustrates why the Rose Town address can be a barrier to social mobility.

Rose Town and Little Burgundy—a neighbourhood in Montreal with a significant population of black Canadians—are the sites of a comparative study being conducted by Dr. Marshall and Dr. Beverley Mullings, an associate professor in the geography department (cross-appointed with gender studies) at Queen's University. The two researchers are exploring how young people of African-Caribbean descent experience their urban environments, and how transnational dialogue can help them address shared challenges. This research is being made possible in part with \$10,000 in funding from the LACREG program.

While there are notable differences between Rose Town and Little Burgundy—Rose Town has less infrastructure, for example—both are relatively poor, marginalized neighbourhoods. Rose Town is a garrison community where gangs use coercion or bribery to secure residents' allegiance to a single political party. Little Burgundy is a high-crime area.

During the summer of 2012, Dr. Marshall and Dr. Mullings conducted approximately 50 interviews with young people, aged 18 to 35, affiliated with both neighbourhoods. They asked the people about their experiences with the education and health systems,

labour markets, and law enforcement, as well as asking them about issues affecting their neighbourhoods' well-being.

Preliminary findings indicate that both groups share feelings of disenfranchisement, stemming from police harassment, economic stresses, language barriers, struggles in the school system, and limited mobility in their respective cities. Respondents also felt that prospective employers were wary about offering them jobs, once they knew what neighbourhood they came from.

What was interesting was the extent to which securing employment seemed such a "significant hurdle" for both groups, says Dr. Mullings. In both places, young people pointed out their willingness, but noted the lack of opportunity, to learn a skilled trade. However, the research isn't meant to simply document young peoples' lives; the researchers insist that it will also provide them with a transnational forum to develop strategies for change. To that end, they will soon bring together participants from both countries in an online focus group to talk to each other.

"We don't expect every young person to solve all the problems in the neighbourhood they live in," says Dr. Mullings. But providing them with a forum to explore the sources of their marginalization and possible responses is an important first step. She envisions the youths brainstorming opportunities for income-generating activities, for example, and recommending how urban governance institutions could be made more inclusive.

These kinds of youth-generated suggestions will benefit policy-makers as well, say the researchers. The work is still under way, but they anticipate it will identify areas where social policies could help youth of African-Caribbean descent in diasporic communities. Other research plans include conducting a community mapping exercise to identify the youths' barriers to participating more fully in their cities.

Approximately 45 percent of Waterloo's Master of Business, Entrepreneurship and Technology graduates have started their own businesses.

first-hand how the MBET program operates.

While in Waterloo, Dr. Wilson conducted 20 interviews with current and former MBET students, Conrad Centre faculty, and representatives of companies that have a

Fostering the next generation of entrepreneurs

How can universities help foster the next generation of entrepreneurs in developing countries? Shellyanne Wilson may soon have some answers to that question.

An assistant professor in design and manufacturing systems at the University of Trinidad and Tobago, Dr. Wilson is leading a comparative study of two graduate entrepreneurship programs: the Master of Science in Industrial Innovation, Entrepreneurship and Management (IIEM), delivered by her institution, and the University of Waterloo's Master of Business, Entrepreneurship and Technology (MBET).

Entrepreneurship programs like these, which were founded with a view towards economic development and interaction with business in their communities, are still relatively young and rare. They can be thought of as "experiments in their local setting," says Rod B. McNaughton, who is Dr. Wilson's research partner and director of the Conrad Business, Entrepreneurship and Technology Centre, which delivers the MBET.

"We are all doing those experiments a little bit differently," notes Dr. McNaughton, underscoring the importance of working collectively to exchange information about approaches to entrepreneurship programs worldwide.


The two researchers are collaborating on a case study that will examine the cultural, economic and historic contexts in which the IIEM and the MBET operate; the programs' design and delivery; and their respective impacts. LACREG funding for this study is approximately \$8,000, enabling Dr. Wilson to travel to Waterloo and observe

relationship with the centre. It gave her an appreciation of how the region's technology ecosystem plays a vital role in supporting the MBET program.

"Being here, I can appreciate the elements that went into making this program the success that it is," says Dr. Wilson, pointing to the MBET's linkages with business, its entrepreneurship-in-residence and its focus on technology-based business models and start-ups. Approximately 45 percent of Waterloo's MBET graduates have started their own businesses.

These preliminary findings may influence a restructuring of the IIEM program, which Dr. Wilson describes as doing a good job of preparing students to be "entrepreneurial in companies." But she adds, "We also want them to start companies."

Encouraging more science and technology-based enterprises is particularly important for the economy of Trinidad and Tobago, which is heavily dependent on its oil and gas sector. Over the last decade, this sector accounted for approximately 40 percent of GDP. "Oil and gas being nonrenewable, we definitely have to find ways of diversifying our economy," says Dr. Wilson. She notes that this research project could help to identify roles that the university can play in creating an environment conducive to innovation in Trinidad and Tobago.

Next steps for the researchers include holding focus groups in Trinidad and Tobago with IIEM graduates and having Dr. McNaughton make a reciprocal visit to learn more about the IIEM program. Although their study is still in progress, both Dr. Wilson and Dr. McNaughton are optimistic that this initiative will be the first step in an ongoing collaboration. 



International participants work together to develop a participatory research agenda at a workshop in India, August 2010.

Photo: Coady International Institute

Multi-country partnerships open doors to southern-led learning

By Taline Bedrossian

As emerging economies like Brazil, India and China continue to tackle development at home and abroad, northern institutions should approach partnerships in a more collaborative way, according to vice-president of international development at St. Francis Xavier University, Dr. John Gaventa.

"There's still a role for northern universities but that role is a shifting one," he said. "We have to learn to be a seat at the table, not just the ones who always set the table."

Dr. Gaventa, who also leads the university's Coady International Institute, made this and other recommendations when he spoke in Ottawa at the June 2012 Leaders' Symposium on New Models

of North-South Partnership, sponsored by the International Development and Research Centre (IDRC) and hosted by the Association of Universities and Colleges of Canada (AUCC.)

Bringing together participants from Canadian universities and members of governmental and non-governmental organizations from Canada and around the world, the symposium was an occasion for participants to share their experiences and to identify the opportunities and challenges related to the development and implementation of new models of partnerships.

A forthcoming AUCC report will highlight case studies of innovative

North-South partnerships involving Canadian universities.

Dr. Gaventa drew from his experience as the project director of a decade-long research centre for the Institute of Development Studies (IDS) at the University of Sussex, funded by the U.K.'s Department for International Development.

From 2001 to 2011, the IDS' Development Research Centre on Citizenship, Participation and Accountability linked 60 researchers from 25 countries. It was initially set up for long-term research around certain themes, but with diffuse objectives. "These were big ideas which would evolve over time," said Dr. Gaventa.

“When you have to define things upfront, it leaves very little scope for either learning or participation,” which were two of the project’s most critical activities.

Nine books and 450 articles and papers came out of the project, covering worldwide civic activism to country-specific policy recommendations. But the project’s lasting value—its effect on participating researchers around the world—is less easily quantified, said Dr. Gaventa.

“We created new models of collaboration that everybody now takes back to their own institutions,” he said. “How they will work in the future, the way they do research, will have a lifelong impact, whereas the findings, will fade over time.”

A participating South African researcher said the many face-to-face meetings and field visits held in different countries put the project’s team members directly in touch with one another and provided them with common reference points for discussion. This way, the project became a vehicle for South-South learning, more like a research network than a centre, said Dr. Bettina von Lieres,

who taught at the University of Western Cape in South Africa, at the time.

“So often, southern researchers don’t actually build long-term networks with other southern researchers,” said Dr. von Lieres, who also spoke at the Leaders’ Symposium. “They’re so caught up in their own local realities and the pressures of responding to all kinds of things.”

For her, to actually visit researchers in another country and see the various conditions in which they work, “was just completely transformative.”

This transformation was not only subjective. Gradually, the structure of the project shifted. Rather than “simply providing the field work for theories that were already established,” which is often the case, southern partners drove research, said Dr. von Lieres. For example, she was made co-chair of the steering committee, along with a Brazilian researcher, of a working group in which they chose their own case studies and research sites.

With more southern partners in decision-making positions, “we wanted to define a different way of accountability, so people felt accountable to each other and to

the people whose lives we were studying,” explained Dr. Gaventa. “Not just accountable up the chain to the donor or to IDS.”

And as the project worked more globally, “we quickly realized that some of the biggest innovations in democracy were happening in the South,” said Dr. von Lieres. She brought her experience to the Centre for Critical Development Studies at the University of Toronto’s Scarborough campus. In order to keep studying these innovations, she still works with researchers in Brazil, Bangladesh, Canada, Egypt, India, South Africa and the U.K. within a new network, called the Collaboration for Research on Democracy. It was launched at the Scarborough campus in April 2012, thanks to a small IDRC grant, though it is being led by southern partners from the original project.

“For me,” said Dr. Gaventa, “it’s a great privilege now to be able to go to those meetings as a learner, not as somebody who’s leading—to see a next generation of leadership bring forward these ideas, these approaches, but looking at new questions and new research issues.”

Les partenariats multipays ouvrent la voie à l’apprentissage dirigé par les partenaires du Sud

par *Taline Bedrossian*

Puisque les économies émergentes comme le Brésil, l’Inde et la Chine continuent de contribuer au développement chez elles comme à l’étranger, les établissements du Nord doivent adopter un comportement plus collaboratif à l’égard des partenariats, selon M. John Gaventa, vice-recteur au développement international de la

St. Francis Xavier University.

« Les universités du Nord ont encore un rôle à jouer, mais ce rôle change, explique-t-il. Nous devons apprendre à participer au débat sans toujours être ceux qui en fixent les règles. »

M. Gaventa, qui dirige également le Coady International Institute de l’Université, a formulé des

recommandations, dont celle-ci, lors de son allocution au Symposium des dirigeants sur les nouveaux modèles de partenariats Nord-Sud parrainé par le Centre de recherches pour le développement international (CRDI) et organisé par l’Association des universités et collèges du Canada (AUCC) à Ottawa en juin 2012.

Ce symposium, qui réunissait des représentants des universités canadiennes et des membres d'organisations gouvernementales et non gouvernementales du Canada et d'ailleurs, était une occasion pour les participants d'échanger sur leurs expériences et de cerner les possibilités et les défis liés à l'élaboration et à la mise en œuvre de nouveaux modèles de partenariats.

Un prochain rapport de l'AUCC portera sur des études de cas spécifiques aux partenariats Nord-Sud novateurs auxquels participent des universités canadiennes.

M. Gaventa s'est inspiré de sa longue expérience à titre de directeur de projet du centre de recherche de l'Institut d'études sur le développement (IDS) de l'Université du Sussex, financé par le ministère du Développement international du Royaume-Uni.

De 2001 à 2011, le Centre de recherche en développement pour la citoyenneté, la participation et la responsabilisation (Citizenship DRC) de l'IDS a établi des liens entre 60 chercheurs de 25 pays. Le Centre avait été créé dans le but de mener des recherches à long terme sur certains thèmes, mais les objectifs étaient vagues. « On se penchait sur de grandes idées qui devaient évoluer au fil du temps, » se rappelle M. Gaventa. « Lorsqu'il faut tout définir à l'avance, il reste peu de place pour l'apprentissage et la participation »; deux des activités les plus importantes du projet. »

Le projet a donné lieu à neuf livres et 450 articles allant de l'activisme citoyen à l'échelle mondiale à des recommandations propres aux politiques de chaque pays. Cependant sa valeur à long terme – ses



Des chercheurs de plusieurs pays développent un agenda de recherche participative.

Photo : Coady International Institute.

répercussions sur les chercheurs qui y ont participé – est plus difficilement quantifiable, précise M. Gaventa.

« Nous avons créé des modèles de collaboration que tous mettent maintenant en place dans leurs propres établissements, poursuit-il. La manière dont ils travailleront à l'avenir et leurs méthodes de recherche auront des répercussions à long terme, tandis que les conclusions de ces travaux s'effaceront au fil du temps. »

Selon un chercheur sud-africain participant, les nombreuses rencontres en personne et les visites sur le terrain dans différents pays ont permis de mettre les membres de l'équipe du projet directement en contact les uns avec les autres et de trouver des références communes. Ainsi, le projet est devenu une

plateforme d'apprentissage Sud-Sud qui ressemblait davantage à un réseau de recherche qu'à un centre, selon M^{me} Bettina von Lieres, qui enseignait à l'Université du Cap-Occidental en Afrique du Sud à l'époque.

« Il arrive trop souvent que des chercheurs du Sud n'établissent pas de réseau durable avec d'autres chercheurs du Sud, déplore M^{me} von Lieres, qui a également pris la parole au Symposium des dirigeants. Ils sont trop absorbés par leurs réalités locales et pressés de réagir à toutes sortes de situations. »

Selon elle, le fait de visiter les chercheurs dans un autre pays et d'observer les conditions dans lesquelles ils travaillent « a été une expérience transformatrice. »

Cette transformation n'a pas été que subjective. La structure du projet qui a graduellement évolué.

Plutôt que « de simplement fournir des possibilités de travail sur le terrain pour vérifier des théories établies, » comme c'est souvent le cas, les partenaires du Sud menaient les recherches, se réjouit M^{me} von Lieres. Cette dernière a, par exemple, coprésidé avec un chercheur brésilien le comité directeur d'un groupe de travail au sein duquel ils choisissaient leurs propres études de cas et leurs sites de recherche.

En raison du nombre accru de partenaires du Sud en mesure de prendre des décisions, « nous avons voulu donner un nouveau sens à la responsabilisation afin que les gens aient un sentiment de responsabilité envers leurs collègues et envers les gens dont ils étudiaient les vies, pas uniquement envers le bailleur de fonds ou l'IDS, » explique M. Gaventa.

À mesure que le projet prenait une portée mondiale, « nous avons rapidement compris que certaines des plus grandes innovations en matière de démocratie voyaient le jour au Sud », raconte M^{me} von Lieres, qui a mis son expérience au service du Centre d'études sur le développement critique du campus de Scarborough de la University of

Toronto. Afin de continuer d'étudier ces innovations, elle collabore toujours avec des chercheurs de l'Afrique du Sud, du Brésil, du Bangladesh, du Canada, de

« Nous avons créé des modèles de collaboration que tous mettent maintenant en place dans leurs propres établissements. La manière dont ils travailleront à l'avenir et leurs méthodes de recherche auront des répercussions à long terme, tandis que les conclusions de ces travaux s'effaceront au fil du temps. »

John Gaventa, directeur Coady International Institute, vice-president développement international, St. Francis Xavier University

l'Égypte, de l'Inde et du Royaume-Uni au sein d'un nouveau réseau appelé Collaboration pour la recherche sur la démocratie (CORD.) Le réseau a

été mis sur pied sur le campus de Scarborough en avril 2012 grâce à une petite subvention du CRDI, mais ce sont des partenaires du Sud ayant participé au projet initial qui le dirigent.

« C'est pour moi un grand privilège que de pouvoir maintenant aller à ces rencontres pour apprendre et non pour diriger, » admet M. Gaventa. « Je peux voir une nouvelle

génération de leaders proposer leurs idées et leurs méthodes tout en se penchant sur de nouvelles questions et de nouveaux enjeux de recherche. »

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