



# Partnerships for Knowledge

Highlights from Phase V  
(2008-2011) of the Canada-  
Latin America and the Caribbean  
Research Exchange Grants  
(LACREG) program

 **AUCC**100  
1911-2011  
Association of Universities and Colleges of Canada  
Association des universités et collèges du Canada

**IDRC**  **CRDI**

*“By permitting researchers to conduct exchange visits, the LACREG program increases research capacity at home and abroad.”*

DR. RONALD HARPELLE  
LAKEHEAD UNIVERSITY, CANADA

*“The research activities have been very important because I learned several techniques in microbiology and molecular biology that were useful to develop other projects.”*

EVELYN VALERA ROJAS, PHD CANDIDATE,  
AGRARIAN UNIVERSITY OF HAVANA, CUBA

The Canada-Latin America and the Caribbean Research Exchange Grants (LACREG) program is designed to strengthen international partnerships and consolidate emerging networks among academic researchers from Canada, Latin America and the Caribbean.

Managed by the Association of Universities and Colleges of Canada, the LACREG program is made possible with the financial support of the International Development Research Centre.

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Photos courtesy of LACREG grant recipients

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Christian Correa-Guzman, a PhD candidate at McGill University, studies fresh-water fish in Chile.



A student at the Centro Internacional de Entrenamiento e Investigaciones Médicas laboratory in Colombia.



Canadian students from Lakehead University and Ecuadorian students from Escuela Superior Politécnica de Chimborazo stand before the Chimborazo volcano with the community leader of Chorrera Mirador, a small Andean community.

# Partnerships for Knowledge

Canadian universities are globally oriented institutions with a long history of research excellence that includes building relationships beyond our borders – a principle recently underlined by the Association of Universities and Colleges of Canada during its centenary celebrations. Looking toward the next 100 years of global partnership, Canada’s universities committed to “concentrating the world’s best minds on the world’s toughest problems” and “creating alliances and partnerships of shared purpose to address the challenges facing the world.”

The Canada-Latin America and the Caribbean Research Exchange Grants (LACREG) program, managed by AUCC with financial support from the International Development Research Centre, is a concrete example of global engagement in action.

Since its inception in 1995, LACREG has been the catalyst for creative collaborations. Canadian and international researchers jointly pursue knowledge in a wide variety of disciplines, sharing techniques and perspectives, generating new ideas and building networks that transcend Canada, Latin America and the Caribbean. Given that research results are so eagerly sought by universities, non-governmental organizations and government agencies, it’s not surprising the program also contributes to new policies at both the community and national levels.



## THE PROGRAM

Specifically, the objectives of the LACREG program are:

- To support small collaborative research activities that help to create, disseminate and sustain the application of knowledge for the development process in at least one area of IDRC thematic priority.
- To contribute to the sustainability of research linkages, activities and results through explicit commitments from all partner institutions to a plan of action for research collaboration.

Through a competitive process, LACREG covers two-thirds of grant recipients’ travel costs up to a maximum of \$15,000 per project. Partners normally have 14-16 months to complete their joint research project, and must address at least one of IDRC’s four thematic priorities: agriculture and the environment; science, technology and innovation; social and economic policy; and health and health systems.

The program is highly competitive, drawing interest from graduate students and researchers from universities and research institutes from across Canada, Latin America and the Caribbean. To date, the program has provided 256 grants for joint research initiatives.

This publication highlights results from LACREG Phase V (2008-2011), which awarded 34 grants in competitions held in 2008 and 2009. The research results are presented by country. Phase V projects covered a wide range of collaborations, from work with ultraviolet light for water treatment in Bolivia to measuring social media in Brazil, and from the study of the ecological effects of invasive trout in Chile to the development of resources for street youth in Colombia.

## A STRATEGIC ROLE

As demonstrated in this report, the travel grants offered by the LACREG program to Canadian, Caribbean and Latin American researchers are relatively modest, but can pay huge dividends.

In many cases, the projects generated knowledge that could be used in other countries – not just in Latin America and the Caribbean, but in Canada as well. For example, Mi'kmaq communities in Prince Edward Island are learning about indigenous rights and fisheries management from Aboriginal populations in Chile. Often, researchers made connections that expanded their work far beyond the Americas – a project on the pulp industry in northern Ontario and Uruguay, for example, attracted interest in Finland.

Relationships developed on a LACREG exchange expose students to prestigious mentors and state-of-the-art facilities, building a student's profile, expertise and credentials. A graduate student from Cuba, Evelyn Valera Rojas, not only learned new scientific techniques through her research grant, she parlayed her findings into financial support from both Ontario and Canada to pursue a PhD at the University of Guelph.

The rewards can be equally great for experienced researchers, opening up new possibilities and directions. As a result of his work on remote sensing of rock glaciers, for example, Alexander Brenning was invited to join an expert group, and planned a six-month sabbatical from the University of Waterloo to continue his research in Chile.

Results generated also help build a case for more substantial funding from other institutions and funders. Ana Dammert at Carleton University, for example, drew on her research into fair trade, child labour and coffee in Peru to apply successfully for a grant from the Social Sciences and Humanities Research Council. A team from Ryerson University, McMaster University and the National Autonomous University of Nicaragua received support from The United Nations Development Fund for Women to expand their research on sexual exploitation of children and women.

Indeed, the leveraging effect of the LACREG program takes on many dimensions:

- Continuing their transition from collaboration among individual researchers to a more formal institutional partnership, Canada's Dalhousie University and Fundación Tierra in Bolivia signed a formal agreement, and then secured a SSHRC grant to pursue research on indigenous institutions.
- Saint Mary's University in eastern Canada and the Universidad Autónoma de Zacatecas in Mexico continued to move from research programs into curriculum development, establishing a network that designed a new master's program in development studies for two universities in Bolivia.
- On the strength of the collaboration between the North-South Institute and the Latin American Trade Network, the government of Canada invited Pablo Heidrich to take part in planning sessions and give testimony on key issues, demonstrating how the impact of LACREG grants has moved from the realm of individual research towards public policy.

From providing opportunities for personal and professional development, to strengthening national and international research networks, to achieving practical and strategic results that improve lives, the LACREG program remains a dynamic force for change.

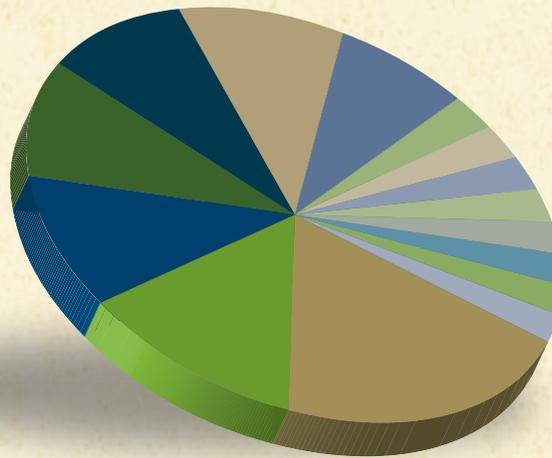
## CALL FOR APPLICATIONS

In the summer of 2011, AUCC issued a call for proposals for LACREG Phase VI (2011-2014). Results from the first competition were released in December 2011. The deadline for the second competition is expected to be in mid-2012. Check AUCC's website regularly for updates at [www.aucc.ca/lacreg](http://www.aucc.ca/lacreg).

## LACREG PHASE V: BY THE NUMBERS

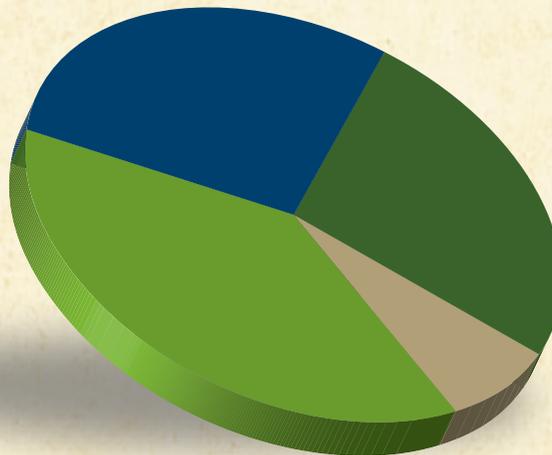
Competitions	2
Project applications received	171
Grants awarded	34
Graduate student grant recipients	6
Latin American and Caribbean countries	15
Latin American and Caribbean institutions involved in the projects	47
Canadian institutions involved in the projects	23

### Distribution of projects by Latin American and Caribbean country



Peru	20%
Brazil	12.5%
Chile	10%
Colombia	10%
Cuba	10%
Mexico	10%
Bolivia	7.5%
Argentina	2.5%
Costa Rica	2.5%
Ecuador	2.5%
Nicaragua	2.5%
Panama	2.5%
Paraguay	2.5%
Uruguay	2.5%
Venezuela	2.5%

### Provincial distribution of Canadian institutions



Ontario	37%
Western provinces	29%
Quebec	26%
Atlantic provinces	8%

# BOLIVIA

## Indigenous communities and self-governance

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*John D. Cameron, Dalhousie University, Canada*  
*Gonzalo Colque, Fundación Tierra, Bolivia*

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Bolivia was the first state to formally support the UN Declaration on the Rights of Indigenous People, incorporating its core principles into the country's own 2009 Constitution. In light of this landmark event, researchers analyzed the creation of new indigenous self-governance institutions in three of the country's indigenous municipalities.

The process of creating these institutions in two of the municipalities (Jesús de Machaca and Tarabuco) slowed significantly during 2010. As a result, research shifted from analyzing the internal political obstacles to indigenous autonomy in each municipality. Ultimately, the project organized four workshops on indigenous autonomy that involved government officials, academics and representatives of other NGOs. In the autumn of 2010, researchers presented a paper on their findings to a meeting of the Latin American Studies Association.

The collaboration solidified the already strong relationship between the two partners. In 2008, four years after the start of their partnership, the university and the NGO signed a Memorandum of Understanding. More recently, after signing a formal agreement for collaborative research between 2011 and 2014, they received a grant from SSHRC to pursue research on indigenous institutions.

## Gender, ethnicity and political inclusion in new municipal structures

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*Nancy Thede, Marie-Michèle Mondor and Martha Lucia Gomez, Université du Québec à Montréal, with Stéphanie Rousseau, Université Laval and Pierre Beaucage, Université de Montréal, Canada*  
*Manuel de la Fuente and Alejandra Ramirez, Universidad Mayor San Simón, Bolivia*

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Fifteen years after the implementation of an innovative decentralization process praised around the world, most of Bolivia's 300 municipalities – which are largely rural – now have some form of participatory government. What's more, new players, both individual and collective, have made inroads into municipal politics, including women, smallholder farmers and indigenous people.

Researchers explored the tensions and paradoxes of inclusion and exclusion within this participatory process, consolidating the findings of their individual work. To that end, they analyzed the emergence of new autonomous municipalities. Ultimately, they sought to identify how the modification of municipal structures led to greater inclusion over the past 15 years without creating new exclusions.

Researchers organized scientific seminars at Université Laval, UQAM and Centro de Estudios Superiores Universitarios at the Universidad Mayor San Simón to present their findings. In addition to taking part in other symposiums and conferences, six members of the team contributed to articles for a special issue of CESU's *Decursos* journal in 2011. They expect to share their work again at the World Congress of the Latin American Studies Association in 2012.



From left: Manuel de la Fuente, Nancy Thede and Alejandra Ramirez at a research seminar in Cochabamba.



As the UV water treatment system is installed, residents of the rural community of Cerro Grande are trained to use it.

## Technology sheds light on water treatment

*Mario Zapata Paláez and James R. Bolton, University of Alberta, Canada  
Julio Torres, Universidad San Francisco Xavier, Bolivia*

In Cerro Grande, a rural community in Bolivia which relies solely on untreated water, gastrointestinal diseases are common, especially among the large population of children under five years of age. While ultraviolet light has been used successfully in developed countries to treat water, the technology is not yet widespread in developing countries, especially in rural areas. To test the feasibility of UV technology in Bolivia, researchers installed two Canadian-made light units in the community to disinfect water at the source.

Capital costs were significant, especially when equipment had to be imported. “Community organization is a powerful tool for getting grants and funds for this kind of project,” noted Mario Zapata Paláez. He concluded the community’s willingness to pay for safe water might make the operation and maintenance of the system sustainable for a number of years.

In Sucre, Mr. Zapata Paláez delivered a short course on disinfecting water and wastewater with ultraviolet light that was attended by 80 people, including government officials, the local water company and students. Back in Canada, he drew on the research in Bolivia to complete his master’s thesis in environmental engineering in 2011. Subsequently, he co-authored a proposal for a rain water collector treated with UV light in an indigenous community of Panama. “Since UV water treatment was proven to work properly in remote locations with minimally trained operators,” said Mr. Zapata Paláez, “there is the possibility of changing many lives, even in our own backyard.”

# BRAZIL

## Cooperative recycling and climate change mitigation

*Megan King and Jutta Gutberlet, University of Victoria, Canada*  
*Nídia Pontuschka, Universidade de São Paulo, Brazil*

Since 2005, the University of Victoria has worked with partners in Brazil on the Participatory Waste Sustainable Management Project, most recently with the University of São Paulo. In this project – the first of its kind in Brazil – Megan King began assessing the extent to which cooperative recycling was reducing greenhouse gas emissions, as well as its capacity to support further reductions. Drawing on these findings, the researchers planned to examine the potential for recycling cooperatives to earn carbon credits and take part in carbon trading.

Based on analysis to date, researchers expect to create a carbon offset calculation model and build capacity within the recycling community, particularly around greenhouse gas emissions, carbon offsets and the carbon market. “This would strengthen the position of these recycling cooperatives within the political realm and the marketplace,” said Ms. King. In addition to her graduate thesis, the research was expected to generate two peer-reviewed papers.

Beyond the project, researchers would like to train recycling cooperative leaders in the application of the carbon offset calculation model. A brochure summarizing results and their implications would also be shared throughout the network of cooperatives.



Neil Nunn (second from right) with members of the Brazilian recycling cooperative.

## Power dynamics in recycling cooperatives

*Neil Nunn, University of Victoria, Canada*  
*Nídia Pontuschka, Universidade de São Paulo, Brazil*

In what ways have recycling cooperatives given women the power to inspire personal and social change, as well as influence institutions that affect their lives? What institutions have had a significant influence in shaping this unique space? These were the two questions posed by Neil Nunn in the first of two studies exploring gender relations in nine recycling cooperatives in the Greater ABC region (the industrial sector) of São Paulo.

The second study looked at socially produced power asymmetries within the lives of women and men employed by the cooperatives. Mr. Nunn suggested that it's not only men who oppress women; women themselves play a role in their own oppression. He affirmed this notion by exploring the ways that female cooperative recyclers discursively (re) produce hegemonic masculinity and social roles, abilities and inabilities.

Beyond completing his thesis for a master's in geography, Mr. Nunn planned to draw on his research to write a book about gender-based struggles, challenges and potential solutions within cooperatives.

## Rhetoric and reality in responding to women voters

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*Simone R. Bohn, York University, Canada*

*Denise Paiva, Universidade Federal de Goiás, Brazil*

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Does the platform pushed by feminist NGOs reflect what women really want? Do bills initiated by women legislators really echo the public policy preferences of female voters and the agenda of feminist organizations? Do female legislators and feminist NGOs really represent female voters?

Researchers sought to answer these questions by looking at the case of Brazil. They began mapping female voters' preferences of public policies by analyzing national surveys. They also analyzed speeches by female representatives in Brazil's Congress, both from the House and the Senate. And they analyzed both the quantity and quality of bills initiated by both congresswomen and female senators to assess their legislative preferences and verify whether they advance more bills in defence of women's interests than their male counterparts. Finally, they interviewed nearly half of federal congresswomen, as well as NGO advocates for rural female workers, Catholic women and female Native Brazilians.

The researchers have already published several articles with many more to follow. A book is expected to be published in 2012. In addition, the research has led to further collaboration between Simone Bohn and a political scientist from the Federal University of Parana in Curitiba. They developed a project related to *Bolsa Familia*, the conditional cash transfer policy of President Lula's administration. Together they have produced one article on the policy, are working on a second and planning a third.



## Researchers lay foundation to measure social media

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*Elizeu Santos-Neto and Matei Ripeanu, University of British Columbia, Canada*

*Nazareno Andrade and Francisco Brasileiro, Universidade Federal de Campina Grande with Jussara Almeida and Marcos André Gonçalves, National Institute for Science and Technology for the Web, Brazil*

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The emergence of online social networks creates possibilities for new services that tap into a valuable pool of user-generated information such as citizen journalism. Realizing these benefits, however, demands more knowledge about the impact of such technologies on the “information economy” ecosystem, as well as on content governance on the Internet. In this context, the researchers examined user behaviour in online peer production systems and sought to design new ways to quantify peer-produced information such as social tagging.

The project depends on software and hardware to analyze public records of user activity from YouTube and other systems. Researchers laid the foundation for this work by designing and implementing the core of the software infrastructure. In addition, they set up mechanisms to make remote collaboration more efficient, including tools to help control software quality.

Even more significantly, the project boosted on-site collaboration among the partners. NetSysLab hosted two Brazilian students for six months as part of the Emerging Leaders in the Americas Program, for example. The partners developed three new joint projects, and secured funding for a UBC student to visit LSD/UFCG in 2012.

Researchers survey the area surrounding a rural fishing community on Chiloe Island. >

# CHILE

## Ecological effects of invasive trout

*Cristian Correa-Guzman, Andrew Hendry and Irene Gregory-Eaves,  
McGill University, Canada*

*Brian Dyer, Universidad del Mar and Gonzalo Gajardo,  
Universidad de Los Lagos*

Most freshwater fish in Chile are at risk or else insufficiently known. While researchers point to contributing factors such as degrading habitat and invasive trout, they lack systematic information on why species are endangered. The country also lacks a geographical inventory of fish biodiversity. This project began to fill these two knowledge gaps.

In what Cristian Correa-Guzman calls the broadest-ever study of freshwater fish in Chile, the researchers surveyed 25 Patagonian lakes ranging from those with high levels of trout to those undisturbed by this invasive species. The research provided important baseline information on biodiversity, uncovering strong impacts of trout across ecological scales in Patagonian lakes. “My motivation is to promote appropriate conservation,” said Mr. Correa-Guzman.

Second, to stimulate broader perspectives, the researchers progressed towards the development of the first Chilean freshwater fish geographical database. It highlights 77 references, more than 600 sampling sites along the country and more than 60 native and introduced species detected in the wild. This resource will help identify knowledge gaps, temporal and geographical patterns, and stimulate more research and conservation.

The collaborators contend their innovative and multidisciplinary research (including an unprecedented sampling effort in lakes of the Aysen region) will become a landmark in the understanding of Patagonian freshwater fish and the ecological impacts of exotic trout in lake ecosystems.



## Indigenous rights and fisheries management

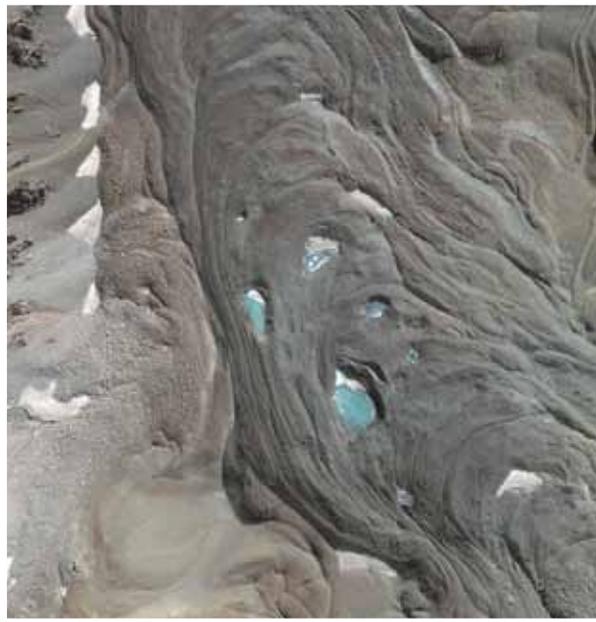
*Irene Novaczek, University of Prince Edward Island, Canada  
Manuel Munoz, Universidad ARCIS Patagonia, Chile*

Prince Edward Island and Chiloe Island have much in common, including a reliance on potatoes, fisheries, aquaculture and tourism; Aboriginal populations that struggle with health and social problems, as well as for rights and access to land; and youth who leave home for better prospects. Through this project, the partners aimed to strengthen the capacity of indigenous people on the two islands to manage fisheries and aquaculture development and to engage youth in these processes. The project also supported advocacy for public policies that support indigenous rights of access to natural resources for livelihood, as well as for social economy organizations that work with indigenous communities.

In early 2009, the researchers collaborated on several well-attended workshops, and the UPEI-ARCIS internship program was subsequently evaluated and extended. The partners arranged to send a graduate student to Chiloe to do her MA thesis research, while other projects at UPEI were initiated to help build capacity for work in Chiloe.

Late in the same year, Manuel Munoz visited UPEI where he participated in a research seminar, gave lectures to academic and community audiences, worked with Aboriginal and non-native youth and travelled to indigenous coastal communities to meet and consult with Mi'kmaq elders and community leaders. “Chiloe has a much larger Aboriginal population that is more integrated into the mainstream,” said Irene Novaczek. “There is great potential for the Mi'kmaq people to learn from the Williche people (of Chiloe).”

The partnership continues to grow. In 2011, the partners offered workshops to the Williche Council of Chiefs on how seaweed could improve agricultural practices. In addition, interns on Chiloe Island published two research reports. Two Aboriginal interns, funded by CIDA, are expected to visit Chiloe in 2012.



< Satellite images like this one help locate glaciers under thick layers of rock. Photo: IKONOS satellite image. © GeoEye. Image processing by Pacific Geomatics Ltd.

## Remote sensing of rock glaciers

*Alexander Brenning, University of Waterloo, Canada*

*Marco Peña, Universidad Mayor, Chile*

In the desert environment of the dry Andes, rock glaciers are one of the most important stores of frozen water. Researchers sought to apply a remote sensing/terrain analysis mapping system for detecting rock glaciers in the Andean environment. Such a system would strengthen Chile's ability to detect cryospheric water resources where they are most critically needed. At the same time, it would provide expert knowledge to environmental impact evaluations of high-mountain mining projects that are increasingly affecting rock glaciers.

Researchers identified three previously unknown remote-sensing approaches that could help detect rock glaciers in remote mountain areas. They carried out, or ordered, image acquisitions for these approaches. A seminar on their findings in Santiago attracted participants from several research and government institutions, as well as consulting and mining companies.

Given his expertise, Alexander Brenning was invited to join an expert group advising Chile's national environmental protection agency on the implementation of its recently approved National Glacier Policy. In 2011, building on the LACREG research, Dr. Brenning set up a system for the Chilean water directorate to map ground temperatures and locate rock glaciers more effectively. "Mapping is required by law to protect the rock glaciers," he said. "Tens of thousands of square kilometres need to be mapped in the next 10 years."

## Job growth strategies in resource-based communities

*Margaret Rose Olfert, University of Saskatchewan, Canada*

*Julio Berdegué and Eduardo Ramirez, Rimisp-Centro Latinoamericano para el Desarrollo Rural, Chile*

A significant proportion of rural communities in both Canada and Latin America, especially remote communities with large Aboriginal populations, continue to depend on natural resources to drive their economies. In 2001, an estimated 2,000 communities in Canada – many with large Aboriginal populations – derived at least 30 percent of their employment income from natural resources such as agriculture, energy, fisheries, forestry and mining. In Latin American countries, agriculture provides some 238 million rural inhabitants with half of their income.

In the first phase of a longer-term collaboration, research partners investigated factors affecting economic growth in resource-dependent rural communities in Canada and Chile. The principal investigators were supported by colleagues at their institutions, as well as from Ohio State University (U.S.), University of Waikato (New Zealand) and the University of Southampton (U.K.). Given an era of budget constraints and similarities among rural communities, researchers attempted to identify place-based policies that could determine strategic interventions in selected rural communities without creating disincentives.

Researchers proposed four "types" of communities based on population growth and poverty with Type I as the most likely candidate for intervention. They also used geographically weighted regression to explore spatial variations on the impact of local job growth. They confirmed that the effectiveness of local job growth varies across resource-dependent communities. Meanwhile, their typology can help focus the investigation on the most likely communities for place-based policy.

"The project turned out really well, beyond my wildest expectations," said Margaret Rose Olfert, who notes the grant helped strengthen her research network and supported her successful bid for a SSHRC grant of \$75,000. "The need to examine ways of helping particular places improve and participate in growth and development seems to be gaining ground."

# COLOMBIA

## Trade, investment and forced migration

*Susan McGrath and Alan Simmons, York University, Canada*  
*Roberto Vidal, Pontificia Universidad Javeriana, Colombia*

While Colombia has the second largest number of internally displaced people in the world, recent research suggests forced migration is a growing problem throughout Latin America. However, states lack a thorough understanding of the magnitude and profile of the displaced population, as well as how best to protect these vulnerable people. Moreover, the region lacks policy approaches that link forced migration and development processes, a problem made worse by the isolated and ad hoc nature of current research.

In response to this challenge, researchers formed the Latin American Network on Forced Migration to build alliances and inform both international and Canadian policy on the issue. LACREG funding enabled the network to convene its second meeting, which mobilized 30 NGOs and academics from various countries in the region, including Argentina, Bolivia, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela. In a two-day workshop held in Canada, participants explored issues such as trade, investment and forced migration in Latin America. A smaller group of scholars met for a third day to further build capacity in the network.

The network identified three focus areas for further research: law and regulation, including corporate accountability and the tensions between human rights and investor rights; vulnerability, including physical violence, as well as economic and environmental concerns; and advocacy and civil society, which would focus on giving people and communities the tools and support to advocate on their own behalf.

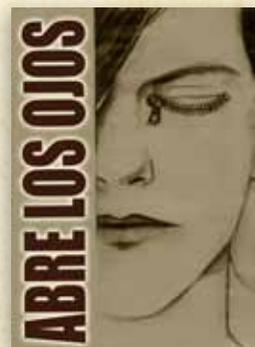
## Educational resources for street-involved youth

*John Wylie, Barbara McMillan, and Chelsea Jalloh, University of Manitoba, Canada*  
*Carlos Rojas, Universidad de Antioquia and Dora Hernández, Alcaldía de Medellín, Colombia*

The internal conflict in Colombia has displaced more than three million people, including many youth who lose access to education, health care and a family network. Through this project, Canadian and Colombian researchers worked with street-affected youth in Medellín to identify their health concerns, and then create, distribute and evaluate a pamphlet as an educational resource. In addition to promoting awareness, the project was conceived as a way to empower youth. “Because these youth collaborated on every aspect of the pamphlet, it was physical proof that their voices and perspective matter,” said Chelsea Jalloh.

Focus groups identified four key topics for the pamphlet. Researchers provided factual material related to HIV/AIDS, Sacol (a solvent sniffed by many youth) and piercings, while the youth themselves identified positive and negative aspects about life on the street. A Colombian artist developed the artwork for the pamphlet, which was called “Open Your Eyes.” The project distributed 700 copies to street-involved youth in Medellín and engaged youth in evaluating the resource.

Apart from the benefits to youth, the project enabled researchers, professionals and students to learn from each other and gain insight into services in other countries. Ms. Jalloh established contacts that could enable her to pursue a collaborative PhD between the two universities, while the Colombian outreach workers learned skills in planning and holding focus groups and interviews that could benefit future collaborations. Indeed, partly thanks to the project, formal agreements between the two partners and between the University of Manitoba and the municipal government of Medellín, bode well for new ventures.



On the pamphlet's cover, Colombian artist Oliver Suaza encourages street youth to open their eyes. © Oliver Suaza



Clara Ocampo (left) with two students in the CIDEIM laboratory.



The two-day workshop allowed members of the Latin American Network on Forced Migration to exchange ideas and experiences.

## New inroads against dengue

*Clara Ocampo, Centro Internacional de Entrenamiento e Investigaciones Médicas, Colombia*

*Carl Lowenberger, Simon Fraser University, Canada*

With 50 to 100 million new cases annually, and 2.5 billion people at risk of infection, dengue is the most important viral disease spread by insects in the world. The lethal forms of dengue hemorrhagic fever occur when people are infected with more than one of the four serotypes, which is increasingly more common with travel between continents. Currently in Cali, Colombia, all four serotypes are circulating in the population, yet there are some mosquitoes that do not carry the dengue virus at all.

In a major step towards preventing dengue transmission, researchers identified potential molecules and mechanisms that help determine what factors limit the development of this virus. With funding from the Colombian government, a post-doctoral fellow from Simon Fraser University spent six months in Cali to build on the project's initial promising results – a concrete example of strengthened linkages among institutions.

LACREG support has increased the capacity of Colombian researchers, who can now draw on techniques learned at Carl Lowenberger's lab. As a result of access to SFU's Faculty of Health Science, two former SFU students began working at CIDEIM. Moreover, Clara Ocampo has generated new funding, partly on the strength of the two-way exchange.

# CUBA

## Good bacteria can help plants and crops

*Carlos José Bécquer Granados, Instituto de Investigaciones de Pastos y Forrajes and Universidad de La Habana, Cuba*  
*George Lazarovits and Danielle Prévost, Agriculture and Agri-Food Canada and Université Laval*

Many soil bacteria can play beneficial roles such as fixing atmospheric nitrogen, producing growth-promoting substances, enhancing stress resistance and increasing the solubility of organic and inorganic phosphate. These microbes, in the right combination, can improve the capacity of plants to resist environmental stress and reduce dependency on chemical fertilizers. This, in turn, can lead to better plant quality and higher yields.

In this project, considered the required first stage of long-term work, researchers conducted a variety of experiments under both controlled conditions and in the laboratory. Among other results, they demonstrated the positive effect of certain bacterial cultures on the plant's physiology, as well as the best alternative for multiplying and storing useful bacteria. Most significantly, they discovered that the presence of beneficial fungi, in a combined microbial inoculation, directly or indirectly influenced a plant's development.

On the basis of these encouraging results, researchers hope to conduct further greenhouse and field experiments on the application of combined biofertilizers onto wheat and other cereals such as oat, rye, corn and sorghum. Future experiments should integrate factors that limit plants' growth such as drought, salinity and acidity.



Carlos Bécquer Granados shows a field where experiments were conducted.

## Defending soybeans against white mould

*Evelyn Valera Rojas, Universidad Agraria de la Habana, Cuba*  
*Istvan Rajcan and Greg Boland, University of Guelph, Canada*

White mould (*Sclerotinia sclerotiorum*) can be detrimental to crops grown under cool, moist environments. Many plants, such as soybean, lack complete genetic resistance. With support from LACREG, researchers sought to identify possible genes involved in defending plants against this pathogen. "One of the main problems is that the disease is so unpredictable," said Dr. Rajcan. "It's widespread and it occurs sporadically."

In a scientific first, researchers tested the molecular biology of Cuban soybean varieties against white mould. Their findings were promising and led Evelyn Valera Rojas to pursue a PhD at the University of Guelph. Not only did she receive a scholarship from the Ontario Ministry of Agriculture, Food and Rural Affairs to continue her research, she gained the endorsement of Grain Farmers of Ontario for a successful application to the Canadian Agricultural Adaptation Program. Individual farmers from Manitoba to Quebec also supported her project.

Her research focused on specific genes in the soybean plant that are also expressed in the pathogen. Understanding these genes can lead to more resistant plant varieties. Ultimately, since the pathogen seriously affects many types of crops, the results of her research could also benefit other plants such as canola, dry beans and sunflowers.



Leónides Castellanos González (right) with Marie-Paule Messier on her family farm outside Montreal.

## Lessons from rural and urban agriculture

*Leónides Castellanos González, Universidad de Cienfuegos, Cuba*  
*Guy Debailleul, Université Laval, Canada*

Given Quebec's innovative approaches to urban and peri-urban agriculture, Leónides Castellanos González worked with Guy Debailleul to investigate technologies that could be adapted in Cuba. Apart from field visits to farms to study cultivation, sewage treatment and genetic improvement of crops, the project also explored the rooftop gardens characteristic of urban agriculture in Montreal. A visit to a farmers' market in Montreal provided insights into made-in-Quebec branding, while further field trips and a symposium expanded awareness of agroforestry.

There was no single system of technological innovation and management that could be transplanted into a Cuban context. Indeed, Dr. Castellanos González gained an appreciation for the spirit of innovation among farmers that allows them to rise to the challenges of their particular circumstances.

In light of these results, the Cuban partner planned to revamp its courses on urban agriculture and put them online so that Quebec students could benefit from them. The two universities were also exploring further exchanges to enable Quebec students to learn more about rural agriculture in Cuba. In 2011, the two partners collaborated on a presentation at Agrosost 2011, an international workshop on sustainable agriculture held in the province of Cienfuegos.

## Reducing exposure to mercury-tainted fish

*Daniel De La Rosa Medero, Instituto Superior de Tecnologías y Ciencias Aplicadas, Cuba*  
*Johanne Saint-Charles, Université du Québec à Montréal*  
*with David Lean, University of Ottawa, Canada*

Mercury-cell chlor alkali plants, which use mercury to produce chlorine and caustic soda, are a major source of mercury pollution around the world. For many years, the plant upstream of the city of Sagua la Grande in Cuba barely treated effluents before discharging them directly into the Sagua la Grande River. Few recent data exist, however, on the effects of mercury contamination on vulnerable groups such as pregnant or nursing women, women of childbearing age and children.

Researchers examined current methyl mercury levels in fish and sediment and also studied the risk perception of the population related to the mercury exposure. They discovered that mercury was accumulating in resident fish, particularly below the effluent discharge point of the local facility. In addition, total mercury concentration in sediment was above accepted levels in 80 percent of the stations sampled. And just over half of the population group studied were consuming unacceptably high quantities of methyl mercury in fish without a clear perception of the health risk.

The researchers shared these results with environmental and health authorities in the area, which led to collaborative strategies to reduce fish consumption and thus exposure to mercury. Daniel De La Rosa Medero also presented results in two academic articles and three international conferences. Moreover, part of the results of the project and other previous results earned them the National Prize for the Environment in 2009 from Cuba's Ministry of the Environment.

# ECUADOR

## Building trust for co-management of *vicuñas*

*Brian Edgar McLaren, Lakehead University, Canada*  
*Edgar Washington Hernández Cervillos, Escuela Superior Politécnica de Chimborazo with Patricio Hermida, Ministerio del Ambiente, and Reserva de Producción de Fauna Chimborazo, Ecuador*

In keeping with renewed interest in the Chimborazo Faunal Reserve by the Nature Conservancy and World Bank, the importance of biodiversity conservation in the reserve has grown. In the surrounding area, however, median family incomes amount to \$45 USD per month. The community also suffers high rates of unemployment and associated social problems. Families could supplement their income by producing fibre from the *vicuña* – a relative of the llama – but the practice raises concerns about the sustainability of the species.

In addition to completing field work and mapping of *vicuñas* in the reserve begun during an earlier LACREG project, researchers consulted community stakeholders, established a system to monitor water quantity and quality in wetlands, and conducted a rapid assessment of water quality in the reserve. In the process, Brian McLaren uncovered mutual misconceptions among community members and the national government about their commitment to invest cooperatively in vicuña co-management and share benefits equitably. Both parties, however, want to learn more on preserving water for multiple uses in the reserve. During his stay in Ecuador, Dr. McLaren was commended for raising awareness of wildlife conservation and management.



Canadian students from Lakehead University and Ecuadorian students from Escuela Superior Politécnica de Chimborazo stand below the Chimborazo volcano with the community leader of Chorrera Mirador, a small Andean community.



In a wetland area of the Chimborazo reserve, Canadian student Patrick Gauthier and Ecuadorian student Marco Alban stand by a sign which reads, "Water is life, protect it."

# MEXICO

## Mexican migration to Quebec

*Patricia M. Martin and Jorge Pantaleón, Université de Montréal, Canada  
Sara Maria Lara Flores and Marina Ariza, Universidad Nacional Autónoma de México*

In this exchange project, researchers initially sought to compare gender and family dynamics among two distinct groups of Mexican migrants: seasonal agricultural workers who find jobs in rural Quebec and urban middle class Mexicans who go to Montreal. As they explored these “intimate economies,” researchers also became interested in issues of social marginality and integration, as well as in asylum seekers from Mexico.

The project stimulated the emergence of a network of researchers, graduate students, union representatives and agricultural workers and, in particular, a permanent seminar and conference series in Mexico on the theme of Mexican migration to Canada. In addition, the two universities have also supported research into Mexican asylum seekers, which they plan to share with the government of Quebec.

As a direct result of the project, several Mexicans pursued studies on Mexican migrants at the Université de Montréal. It has also stimulated new research into Mexicans who seek asylum in Montreal.



Students test water quality in the laboratory.

## Human health risks in a freshwater lake basin

*Harvey Shear, Brian Branfireun and Varouj Aivazian, University of Toronto, Canada*

*Gonzalo Rocha Chávez, J. Guadalupe Michel, and Carlos Gómez Galindo, Universidad de Guadalajara with Tomas Santamaria Preciado, Instituto Tecnológico de Ciudad Guzmán, Mexico*

Since 2006, the University of Toronto has been working with the Universidad de Guadalajara to develop a research program in the Lake Zapotlán basin in Mexico. The lake and its basin are integral to the sustainability of the local economy, but ecological damage is causing significant human health issues. In earlier research, for example, Harvey Shear determined a water treatment plant was contributing to high bacteria levels.

Through the LACREG project, researchers continued their pursuit of a water quality model for the lake. They noted the plant had adopted the project partners’ earlier recommendations for chlorine treatment, and was now functioning. Field work also revealed that mercury levels were acceptable, but that the lake was contaminated with sewage. Finally, local stakeholders lacked understanding of ecological conditions in the lake and its basin.

As a direct result of the Canadian-Mexican partnership, the U de G committed funds to build a laboratory on the shore of the lake. With support from Dr. Shear, the Mexican partners developed a management plan that ultimately earned the lake and basin a spot on the Ramsar List of Wetlands of International Importance. This coveted designation may attract additional funding so that researchers can continue the work.



Researchers conducting field work on Lake Zapotlán.



< Examining soil properties at a university research site in Independence Basin, central Mexico.

## A model to manage a precious groundwater resource

*J.W. Molson, Université Laval, Canada*

*Adrian Ortega, Geoscience Centre, Juriquilla Campus, Mexico*

More than half a million people around Independence Basin in central Mexico rely heavily on groundwater for drinking, as well as for agricultural and industrial use. The water table, however, is rapidly dropping, a natural process amplified by over-pumping of the upper granular aquifer for industrial irrigation. “In 20 years, it will all be desert,” said JW Molson. As the underground water-level sinks, it inches closer to the hot layer of volcanic rock under the earth’s surface. This heats the water and dissolves contaminants such as arsenic, fluoride and sodium, making it unsafe to drink.

Dr. Molson’s visit to the basin provided first-hand knowledge of the scale of the water resource problem, while Adrian Ortega’s visit to the Université Laval brought new understanding of the regional geology and advanced tools. Together, they developed a preliminary flow model that illustrated differences between historical and recent conditions, as well as a heat-transport model that showed how deep higher temperature groundwater could be drawn up towards intensive groundwater pumping zones.

The Mexican partners now have new modeling tools to help interpret field data, which should lead to new solutions and strategies. Indeed, the partners will be able to work with local communities to improve aquifer management at the basin scale. Building on results to date, the universities planned to develop more detailed numerical models that can help predict what will happen to the aquifer in 10 years.

## Collaboration leads to new graduate programs

*Henry Veltmeyer, Saint Mary’s University, Canada*

*Raúl Delgado Wise, Universidad Autónoma de Zacatecas, Mexico;*

*and René González Mercado, Universidad Mayor de San Andrés, Bolivia*

Saint Mary’s University and the Universidad Autónoma de Zacatecas in Mexico have been collaborating for many years. With support from IDRC, for example, the two partners developed a PhD program that was established at UAZ in 2003; a parallel program will eventually be offered at Saint Mary’s. In another joint venture, the two universities launched critical development studies, a regional and now global network for alternative development. With support from IDRC, one of the network’s key projects is to promote cooperation among universities through, for example, offering a doctoral program in development studies in Latin America.

With this in mind, the current project sought to advance collaboration among Saint Mary’s and universities within Latin America. To that end, researchers established a network that brought together Saint Mary’s, UAZ, Universidad de Valparaíso (Chile), Universidad Mayor de San Andrés (Bolivia), Universidade Estadual do São Paulo (Brazil), ALAS (the Association of Latin American sociologists) and RIMD (International Network for Migration & Development).

Working together, the network designed a new master’s program in critical development studies at the Universidad Mayor de San Andrés in La Paz, Bolivia, and at the Universidad Mayor de Cochabamba, Bolivia. At the same time, plans got under way to establish a PhD program at both UMSA in Bolivia and the Universidad de Valparaíso in Chile. Through exchange agreements supported by AUCC’s Students for Development Program, six students over three years can take part in internships in Bolivian NGOs.

# NICARAGUA

## Sexual commercial exploitation of children and women

*Mirna Carranza, McMaster University and Henry Parada, Ryerson University, Canada*

*Luz Angelina López-Herrera and Alma Iris Torres, Universidad Nacional Autónoma de Nicaragua*

More than 80 percent of Nicaraguans live on less than \$2 a day, and one-third of all children never enrol in elementary school, fail to attend, or drop out before reaching the sixth grade. Poverty makes women and children particularly vulnerable to risk, including malnutrition, teenage pregnancy and early marriages, child trafficking and sexual exploitation.

Building on a collaboration that dates to 2008, the partners took new steps with this project to tackle sexual commercial exploitation of women, adolescents and children in Nicaragua. Through focus groups and interviews, they consulted government and community-based groups working to protect women and children who had been trafficked, and met informally with people in rural communities. In this way, they began to develop tools to measure the incidence of children and women involved in trafficking and sexual exploitation, as well as the incidence of forced migration to bordering countries and Canada.

They learned that drug trafficking and organized crime appear inextricably linked to the sexual exploitation of children and trafficking of women. They were also able to study how the lives of people in municipalities bordering other countries are vastly different from those in central regions of the country. Drawing on initial analysis of their data, the team secured funds from The United Nations Development Fund for Women to expand their consultations to the Atlantic coast and with bordering municipalities in Costa Rica.



A road sign points to Managua, Nicaragua's capital city near the Pacific coast.

# PANAMA

## Land use and diminishing biodiversity

*Patrice Dion and Nancy Gélinas, Université Laval, Canada  
Michael Roy, CREA-Panama, Jaime Castañeda, Université de Panama  
and Sunshine Van Bael, Smithsonian Tropical Research Institute, Panama*

Changing land use in Panama threatens the country's rich biodiversity, and in particular, the livelihoods of smallholder farmers and indigenous communities in rural areas. Between 1950 and 2000, more than one million hectares of tropical forest were converted to pasture. Two complementary projects sought to address these challenges by strengthening governance of biodiversity and promoting more sustainable development.

In the first component, Nancy Gélinas helped develop a network engaging local NGOs, indigenous communities and other interested groups. Two interns from Université Laval pursued research projects in Panama, while Dr. Gélinas initiated new research on deforestation that brought together indigenous groups, rural farmers, the government and other researchers. Led by Catherine Potvin from McGill University, this project is developing a national strategy to reduce emissions from deforestation and soil degradation, while reconciling differences between indigenous groups and rural farmers.

The second project focused on the province of Darien where extensive animal breeding has damaged fragile soil. Led by Patrice Dion, researchers identified a variety of socio-economic, scientific and agricultural factors that could help promote breeding systems based on the sustainable development of pastures. Towards the project's end, the team began seeking additional funds to continue the work, particularly around using the jatropha tree to restore soil fertility. Dr. Dion, who learned of this tree's potential while in Haiti, has helped bring Haitian and Panamanian researchers in contact with each other to exchange knowledge and ideas.



The well-being of future generations depends on sustainable land use.



Looking for appropriate plants to restore soil fertility.



Deforestation contributes to the deterioration of soil and air quality.

# PARAGUAY

## Biofuel as an engine of growth

*Anil Hira, Simon Fraser University, Canada*

*Plinio Torres Garcete, Universidad Americana, Paraguay*

Like other nations around the world, developing countries depend heavily on petroleum to drive their economies. In this project, researchers discovered that Paraguay has the technological knowledge and agricultural conditions to develop a sugarcane ethanol industry to support domestic demand.

At the same time, researchers identified the need for a deeper institutional capacity at the state level to regulate the sector, attract investment, provide basic infrastructure and reduce the possibilities of domination by a handful of companies. They also noted that, as in many countries, it would be challenging to develop a sustainable industry whose benefits are shared equitably.

The researchers made several recommendations aimed to develop a cooperative model for the industry, build state capacity and make the industry attractive to European markets by meeting sustainable development criteria. After sharing findings with Paraguayan stakeholders, Anil Hira has continued his research on the industry, particularly in the area of governance.



SFU master's student Alicia Bradsen interviewed sugarcane smallholders.



On a tour of the Itaipu power plant in Brazil, a student pauses by a turbine.



From left, Alicia Bradsen alongside Paraguayan Vice-President Frederico Franco, Anil Hira and Plinio Torres Garcete.

# PERU



Indigenous farmers use video to document their concerns for policy-makers.

## A plant gene bank in the Amazon

*Bruce Coulman, University of Saskatchewan, Canada*  
*Zoila Rosa Guevara Muñoz and Carlos Eduardo Millones Chanamé, Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas (UNIT-A), Peru*

Founded in 2000, UNIT-A seeks to help advance socio-economic development in the Amazon region, while promoting sustainable use of resources. As a relatively new institution, UNIT-A is developing strategies – including international partnerships – to improve its capacity for professional training and scientific research. In 2003, it signed an agreement with the University of Saskatchewan that committed partners to support sustainable development in the region.

To date, several exchanges have focused on building the research and teaching capacity of UNIT-A. With this project, the partners strived to improve understanding and commitment to plant conservation, identifying indigenous cultivars and native plant species for inclusion in a gene bank. To that end, the two Peruvian partners spent three weeks in Canada to gain knowledge in plant propagation, germplasm use and gene bank management. This will prove invaluable as they establish their own gene bank in Peru, and support the PhD research conducted by Ms. Muñoz.

## Innovative market chains for women potato farmers

*Silvia Sarapura and James Mahone, University of Guelph, Canada*  
*Graham Thiele, International Potato Center, Peru*

In the agricultural sector, gender inequalities undermine sustainable and inclusive development. With this in mind, Silvia Sarapura analyzed how innovative market chain systems for native potatoes were enabling women farmers in the central highlands of Peru to gain more control over the livelihoods. By generating deeper understanding, the project sought to promote collective action to stimulate market access for women farmers and reduce poverty.

While small-scale women producers lack knowledge, capacity and opportunities to take part in agricultural markets, they are slowly overcoming these barriers. Early findings, for example, revealed traditional indigenous women farmers were uniting to defend their livelihoods through seed conservation. Still, women generally lacked access to credit, seeds and labour-saving devices, and were rarely consulted on the development of new technology.

As part of the research process, Ms. Sarapura offered tools that brought together action, training and research. This included training in participatory video and photography, which were used to document findings that were then shared with policy-makers, academics and practitioners in both Canada and Peru. The initial collaboration continues to take off in new directions. Not only have the Canadian and Peruvian partners pursued funding for new research, Ms. Sarapura and the university have made contact with interested civil society organizations in Peru and Bolivia. “Partners in Peru, especially peasant people who participated in the study, have a special interest in strengthening this research alliance because Canada would be a place to begin trading Andean crops like quinoa,” said Ms. Sarapura.



Coffee beans not yet ripe for picking.

## Fair trade, child labour and schooling in the coffee industry

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*Ana C. Dammert, Carleton University, Canada*

*Ricardo Fort, Grupo de Análisis para el Desarrollo, Peru*

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Critics of trade agreements argue that globalization puts smallholder farmers in developing countries at risk. Given their poverty and lack of technology, rural producers can't compete with foreign products on the domestic market. In response, rural farmers can pursue niche markets for high-value products, particularly those related to fair trade. "Fair trade is something that everyone has on their minds, but the literature is not clear on whether it affects the livelihoods of farmers," said Ana Dammert.

Through this project, Dr. Dammert travelled to coffee regions in Peru, meeting with cooperatives and managers to explore the potential for fair trade. She also contacted farmers in these cooperatives to gather information about their perceptions of fair trade and child labour. Using her findings, she successfully applied for a SSHRC grant.



Testing water quality at a workshop in Peru.

## Water safety and security

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*Peggy MacLeod and Lalita Bharadwaj, University of Saskatchewan, Canada*

*Zoila Rosa Guevara Muñoz, Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas, Peru*

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Improved agricultural productivity can enhance livelihoods, but unsustainable approaches can contaminate water sources and create health problems. Through this project, researchers examined water security in Lamud, a district in the province of Luya. In a one-day workshop, community, health and education representatives joined other provincial and municipal groups to share information on water safety, quality, collection and storage practices, as well as practices for human consumption and agricultural use.

Collectively the groups identified seven water security issues: the need for, and access to, sustainable water resources; inadequate infrastructure for irrigation; inadequate infrastructure, treatment, distribution, management and monitoring of water for human consumption; deforestation; lack of awareness among the general population and authorities regarding responsibility for sustainability of natural resources; contamination of water supplies; and insufficient training of water personnel in the areas of water treatment, management and monitoring.

Peggy MacLeod says the results will serve as the foundation for a comprehensive mapping of community needs and support a sustainable plan for water security. A 2009 LACREG grant enabled the University of Saskatchewan to build local capacity for integrated water resource management in indigenous communities in the Ancash region of Peru.



The research team gathered outside UNASAM in Peru.

## An integrated approach to water resource management

*Lalita Bharadwaj and Robert Patrick, University of Saskatchewan, Canada  
Eduardo Castro Suarez and S.P. Reyes Tafur, Asociación Urpichallay  
with Edwin Julio Palomino Cadenas, Universidad Nacional de  
Ancash Santiago Antunez de Mayolo, Peru*

On a global scale, water-borne illnesses cause 30,000 deaths every year, and uneven access to safe drinking water contributes to poverty, creates local conflict and reduces access to education – especially for young women. In response, the United Nations has promoted integrated water resource management as a holistic approach that can empower local actors and support appropriate technology.

With this project, researchers assessed the existing adoption of integrated management at the indigenous level in the Ancash region of Peru, as well as capacity requirements and institutional barriers to full adoption. Not only were the communities not practising integrated management, the absence of an integrated approach to water management was undermining health and economic development, and in some cases, social and cultural capital.

The researchers shared knowledge of basic water source protection with local communities. Even as the team sought funding to continue its work, members were establishing links between the Peruvian partners and Saskatchewan First Nations to share ideas of local capacity building. In addition, in partnership with the Federation of Saskatchewan Nations, the team was planning a cultural exchange between indigenous water keepers from Peru and the province.

## Heightened credibility for policy work

*Pablo Heidrich, North-South Institute, Canada  
Alan Fairlie Reinoso, Latin American Trade Network, Peru; Diana  
Tussie, Argentina Node; Pedro da Motta Veiga, Brazil Node; Juan  
Manuel Villasuso, Costa Rica Node*

With Latin America playing an increasing role in Canadian foreign policy, the North-South Institute proposed to study the work of researchers from the region that could prove relevant to Canadian policy-makers. Twelve working papers were summarized in three shorter publications tailor-made for Canadian audiences. The papers focused on international trade and poverty, food security and global production chains and local social impacts.

Researchers shared their findings with various levels of Canadian government, including embassies and consulates, as well as with CIDA and DFAIT officials. The government has responded favourably to the advice and input, and policy-makers have followed up with LATN researchers. Moreover, Pablo Heidrich has been invited to take part in policy planning sessions with CIDA and DFAIT and to give testimony on Canadian policy toward Latin America to the Parliament of Canada.

Apart from its potential impact on Canadian policy, the project enabled partners to gain greater insight into each other's work. Latin American researchers learned more about the Canadian policy process, making it easier to generate research that can influence policy and improve results in the region. By establishing contact with counterparts in Latin America and integrating their results into its own policy work, the North-South Institute heightened its credibility in the eyes of the Canadian government.

# URUGUAY

## “Pulp friction” in northern Ontario and Uruguay

*Ronald Harpelle and Michel Beaulieu, Lakehead University, Canada  
Diego Piñero and Matías Carámbula, Universidad de la República, Uruguay*

In the wake of globalization and the recent economic downturn, resource-based economies in northern Ontario face reduced business investment, high unemployment and environmental problems from the impact of clear-cutting of forests. The town of Fray Bentos in Uruguay, conversely, is enjoying an economic boom for its forest industry with multinational investment in several large pulp mills. All this development, however, has led to the conversion of massive amounts of grassland to plantations and one of the longest running environmental protests in the world.

Building on an earlier collaboration, researchers sought to enhance knowledge about how global economic shifts in the pulp industry are affecting communities. In addition to launching a new debate on the issues among academics and within affected communities, the project planned to provide civil society with information that could help them take part in policy debates on globalization and development.

The project organized seminars in Thunder Bay and Montevideo. Supplementing the grant with funding from other sources enabled the team to hire and support students in both countries. In addition, researchers made links with counterparts in Finland, who invited them to take part in a workshop and conference that explored Finnish investment in Uruguay’s pulp industry. Other Canadian researchers have also joined them to form a new network relating to forest communities in a changing world whose first collection of research essays, “Pulp Friction,” is expected in 2012.



Ronald Harpelle (left) and the research team tour forest plantations in Uruguay.



Members of the research team stand outside the Universidad de la República.

# VENEZUELA, COLOMBIA, PERU

## Mobile telephones, women and healthcare

*Daniel Paré and Isaac Nahon-Serfaty, University of Ottawa, Canada  
Arlette Beltrán, Universidad del Pacífico, Peru; Harold Castañeda  
Pontificia Universidad Javeriana, Colombia; and Caroline de Oteyza,  
Universidad Católica Andrés Bello, Venezuela*

Within Latin America, the exponential growth in mobile telephones offers a host of new opportunities for healthcare access and education among the poor. This is especially true for poor women, who play a major role in keeping their families healthy. But despite this potential, healthcare providers still have difficulty reaching socially vulnerable populations.

“Venezuela has the highest penetration of mobile phones in the region, and almost all young people have one,” said Isaac Nahon-Serfaty. “Our next steps are to find out whether mobile phones are the best way to reach young women, and what kind of messages would be most effective to keep them healthy.”

Using LACREG funds for the preparatory stages of a larger regional study, the Canadian researchers teamed up with counterparts from Peru, Colombia and Venezuela, as well as with healthcare providers and administrators from these same countries. As a starting point, researchers sought to understand the factors influencing the integration of mobile telephony into healthcare service delivery.

Researchers investigated day-to-day mobile telephony and communication practices of women in impoverished communities within specific districts of Lima, Bogota and Caracas. They also looked at healthcare practitioners and administrators in community clinics serving these areas. Building on their results, researchers obtained funding from a Venezuelan source to design and implement a pilot health initiative.



PHOTO: RUI VALE DE SOUSA / CUTCASTER

Venezuela has the highest rate of cell phone use in the region, according to Isaac Nahon-Serfaty.



PHOTO: © ACIDI - CIDA / DAVID TRATILES

Information is vital to the health of Venezuelan youth.

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